Poster Presentations

P - 01

ROLE OF ARFI IN DIFFERENTIAL DIAGNOSIS OF ENDOMETRIUM PATHOLOGIES

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Objective: To show contribution of ARFI in distinguishing endometrium cancer and other pathologies from each other and in detecting myometrium invasion, in cases with bleeding complaints.

Materials and Methods: Our study was prospectively performed with 45 cases of hysterectomy decision in 41-91 years (mean 58.3 years) age range. Pathology revealed 14 cases of endometrial atrophy, 11 cases of secretory and proliferative phase, 10 cases of polyp, 6 cases of endometrial hyperplasia and 4 cases of endometrium cancer. Independent sample T test was used for comparison of ARFI values.

Results: Minimum, mean and maximum ARFI values were found to be 2.72 m/s, 3.09 m/s and 3.45 m/s for atrophy, 3.37 m/s, 3.80 m/s and 4.22 m/s for endometrial proliferation, 2.60 m/s 3.02 m/s and 3.43 m/s for polyp, 3.68 m/s, 4.02 m/s, 4.36 m/s for hyperplasia and 2.57 m/s, 2.98 m/s and 3.4,0 m/s for cancer, respectively. There is a statistically significant difference between the mean of the minimum, mean and maximum ARFI values of the two groups with atrophy and proliferation and with hyperplasia and polyp ($p<0.05$). There is a statistically significant difference between average of the minimum, mean and maximum ARFI values of the two groups in which endometrial hyperplasia and atrophy were detected ($p<0.01$). There is a statistically significant difference between the average of the minimum and mean ARFI values of the two groups with endometrial polyp and proliferation ($p<0.05$). There was no statistically significant difference between the average of minimum, mean and maximum ARFI values of dual groups of polyps and atrophy, cancer and atrophy, hyperplasia and proliferative endometrium, cancer and polyp, cancer and hyperplasia in endometrium. No statistically significant difference was detected in the average of minimum, mean and maximum ARFI values of cases with and without endometrial cancer.

Conclusion: As a result, the ARFI contributes to the differential diagnosis of benign pathologies such as hyperplasia, polyps and atrophic endometrium causing bleeding like cancer in the postmenopausal period. However, it is insufficient in differentiating cancer, atrophy and other pathologies from each other.

Keywords: Endometrial cancer, ARFI, elastography, ultrasonography

P - 02

A RARE CAUSE OF INGUINAL SWELLING; SPERMATIC CORD LIPOMA

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Lipoma is the most common soft tissue tumor of body. It is usually located in proximal extremities, trunk, shoulders etc. Paratesticular localisation is very rare, there is only a few cases in the literature. The most common paratesticular mass is hernia and spermatic cord lipoma is usually diagnosed incidentally during hernia operation. In some cases spermatic cord lipoma may be the only finding without accompanying hernia during the surgery. Spermatic cord lipoma can be diagnosed with ultrasound and magnetic resonas imaging (MRI). In ultrasound examination, like most fatty lesions, lipomas are usually hyperechoic which is neither sensitive nor specific. Other benign masses like hernia or malign lesions like sarcoma, can also be echogenic. MR imaging can be helpful in diagnosis, showing high signal intensity similar to subcutaneous fat. Especially in coronal and sagittal views, it has a well demarcated superior wall and there is no connection with the peritoneum. While inguinal hernias containing mesenteric fat extend to ward mesentery medially or laterally to the inferior epigastric vessels without distinct superior wall. Cord lipoma may cause inguianl hernia symptoms and patient may end up with unnecessary hernia surgery. So MRI has significant role to diagnose spermatic cord lipoma. Lipoma is the most common paratesticular neoplasm and although it can occur other places with in the scrotum, it most often originate from the spermatic cord. We present here a case of spermatic cord lipoma presented as a palpable mass lesion in the scrotum with MRI findings.

Keywords: Inguinal swelling, spermatic cord lipoma, scrotal MRI

P - 03

GIANT UTERINE LEIOMYOMA TORSION AND ASSOCIATED UTERINE TORSION: MRI FINDINGS

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Uterine torsion is an unusual cause of acute abdominal pain and it can be seen in pregnancy but torsion of non-pregnant uterus is a very rare condition. It may cause irreversible ischemic changes and life-threatening conditions. To prevent these complications, early and correct diagnosis is of great importance. Computed tomography and magnetic resonance imaging are successful methods for prompt diagnosis in suspected cases. Also, these methods can guide the surgeon. The aim of this study was to evaluate the clinical and imaging findings of a non-pregnant patient diagnosed with uterine torsion.

Keywords: Myoma, torsion abnormality, uterine neoplasms, magnetic resonance imaging, computed tomography

P - 04

AN UNUSUAL CASE: TRANSDIAPHRAGMATIC RUPTURE OF HEPATIC HYDATID CYST

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Abstract

We present a rare case of right sided huge hydatic cyst with transdiaphragmatic rupture to the right hemithorax. In this case with huge multipl hepatic hydatid cysts, acute respiratory complaints had developed. Thorax CT and contrast enhanced abdomen MRI showed right athelectasis and consolidation in lung basal segments and right sided extensive pleural effusion and air images in the cyst. The huge cyst at the dome of the liver was transdiaphragmatically ruptured to the right hemitoraks and the small defect on cyst wall and diaphragma was seen. There are few similar examples in the literature. Blunt trauma and large diameters of the cyst are the risk factors for rupture, it can also be spontaneously. Transdiaphragmatic rupture of hydatid cyst can cause anaphilactic shock or ordinary respiratuar complaints. In such cases, percutaneous drainage with oral albendazole is a successful treatment option.

Keywords: Transdiaphragmatic, rupture, hydatid cyst

P - 05

DIFFUSE LARGE B-CELL LYMPHOMA: MASSIVE ABDOMINAL INVOLVEMENT

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Abstract

Diffuse large B cell lymphoma (DLBCL), a subtype of non-Hodgkin's lymphoma (NHL)accounting for 30%-40% of adult NHLs, according to the World Health Organization's (WHO) classification.The patient was a 48-year-old man who had chief complaint weight loss and anorexia. He was admitted to the hospital due to fatigue, night sweating and cough. Imaging findings are bilateral renal medulla involvement, extensive retroperitoneal lymph nodes, widespread paroaortic involvement that enveloping left ureter. The massive involvement consist of perisplenic, periportal, paracaval and bilaterally iliac region.

Keywords: Diffuse large cell B-lymphoma, renal involvement, MRI

P - 06

THE CASE OF HETEROTOPIC PREGNANCY AFTER IN VITRO FERTILIZATION

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Abstract

Heterotopic pregnancy is a life-threatening complication of pregnancy defined as coexistent intrauterine and ectopic gestation. Its diagnosis is frequently overlooked and delayed. A 28-year-old woman experienced acute abdominal pain in pregnancy achieved by in vitro fertilization. Since all previous checkups indicated a normal course of pregnancy, the ectopic pregnancy was not suspected on admission. However, due to persistent lower quadrant pain and decrease in hemoglobin level, this diagnosis was also considered. Transvaginal and transabdominal ultrasonography showed heterogeneous formation without flow to color Doppler in left tubal topography with intrauterine live embryo. In addition, hemorrhagic free fluid was observed in the pelvic region. Magnetic resonance imaging revealed a heterogeneous formation in the left adnexal region, a gravid uterus with a live embryo and some internal cystic focal spots. A prompt laparotomy revealed a ruptured left ampullary pregnancy, and salpingectomy was performed. Although rare, heterotopic pregnancy should be considered in the differential diagnosis of abdominal pain in pregnancy. Every physician treating women of reproductive age should bear in mind the possibility of heterotopic pregnancy not only in patients with predisposing risk factors but also in those without them.

Keywords: Heterotopic pregnancy, abdominal pain, intraabdominal hemorrhage

P - 07

A RARE CASE: ZINNER'S SYNDROME

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Abstract

Introduction: Zinner's syndrome is a rare condition which consist of seminal vesicle cysts, ipsilateral renal agenesis and ejaculatory duct obstruction. In this case report, we aimed to present the imaging findings of 40-year-old male with Zinner's syndrome.

Case Report: A 40-year-old man with nonspecific complaints was referred for routine ultrasonography by the urology clinic. Ultrasonography revealed absence of left kidney and cystic dilatations in left seminal vesicle. Renal agenesis was confirmed with contrast-enhanced magnetic resonance imaging (MRI). MRI showed cystic tortuous dilatations in the region of left seminal vesicle appearing intermediate signal intensity on T1-weighted image and hyperintense on T2-weighted image. Cystic dilatations did not show pathologic contrast enhancement. In addition to the findings, a mildly dilated tubular structure, extending from the left main iliac artery to the aortic bifurcation was observed. It was considered as ectopic-atretic ureter. The spermiogram and laboratory test results were normal.

Discussion: Zinners syndrome is distal mesonephric duct and ureteral bud developmental disorder. Other genitourinary anomalies such as ectopic-atretic ureter or megaureter may be associated. Seminal vesicle cysts may increase in size due to the atresia of the ejaculatory duct, fluid content may become intense over time and become symptomatic, for example, intraabdominal mass, prostatitis, incontinence, hematospermia, infertility, carcinoma. In our case, ectopic-atretic ureter is observed as an additional anomaly.

Conclusion: USG and MRI are important imaging modalities for assessing the urogenital system.The absence of ionizing radiation and good soft tissue contrast are the most important advantages of MRI.

Keywords: Zinners syndrome, seminal vesicle cysts, Ipsilateral renal agenesis

P - 08

GASTROINTESTINAL STROMAL TUMOR: CT AND MRI FINDINGS

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Abstract

Objective: Gastrointestinal stromal tumors (GIST) are the most common mesenchymal neoplasms of the gastrointestinal tract. GIST is often seen in the stomach less frequently in the extra duodenal small intestines, colon and rectum. It is rarely seen in esophagus and duodenum. We aimed to present multislice computerized tomography (MSCT) and magnetic resonance imaging (MRI) findings of the GIST in a 36-year-old male patient.

Materials and Methods: Abdominal imaging studies were performed in a 36-year-old male patient with abdominal pain and vomiting complaint with MDCT (320 detector-row CT, Aquilion ONE Vision; Toshiba Medical Systems Corporation, Otawara, Japan) and 1.5 Tesla MRI device (Magnetom Avanto, Siemens Healthcare).

Results: In our case, there was an intraperitoneal mass with centrally cystic-necrotic characteristics, heterogeneous peripheral contrast enhancement and lobulated contour in the right side of the abdomen. It was approximately 12x10 cm in dimensions. Case was histopathologically diagnosed as GIST after biopsy.

Conclusion: GIST is mesenchymal tumors originating from interstitial Kajal cells, which can develop throughout the entire gastrointestinal tract, from the esophagus to the anus, and in areas other than the gastrointestinal tract, such as the omentum, mesenteric, and retroperitoneum. It usually occurs on average at the age of 60 after the 4th decade. The GISTs located in the stomach and rectum are smaller in size and the colon and small bowel tumors are more advanced sarcomas. The most common metastatic regions are the liver and peritoneum. Imaging techniques that can be used include CT, MRI, FDG PET. GISTs are mostly hypervascular lesions and show intense peripheral contrast fixation after contrast medium administration. It may also include cystic degenerated areas, areas of calcification and haemorrhage. Biopsy and immunohistochemical evaluation are necessary for definitive diagnosis. Treatment is surgical resection.

Keywords: Gastrointestinal stromal tumor, MDCT, MRI

P - 09

BLADDER LEIOMYOMA: MRI FINDINGS

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Abstract

Objective: Leiomyoma in the urinary bladder is a rare benign disease. However, it is the most common benign bladder tumor. While it is more common in women, men can also be affected. We aimed to present magnetic resonance imaging (MRI) findings of a case of bladder leiomyoma in a 69-year-old male patient.

Materials and Methods: A 69-year-old male patient with burning in urine was examined by 1.5 Tesla MRI (Magnetom Avanto, Siemens Healthcare) for abdominal imaging.

Results: We present a hypointense mass lesion on T1 and T2 weighted images with having lobulated contours and homogeneous contrast enhancement on the right anterosuperior wall of the bladder. The case was diagnosed as bladder leiomyoma histopathologically after biopsy.

Conclusion: Bladder leiomyomas typically occur in the fourth and fifth decades. The most common symptoms are urinary problems such as obstruction and irritation. Some small leiomyomas are asymptomatic. Tumor primarily shows an intravesical growth pattern (63%), but both extravesical growth (30%) and intramural growth (7%) are uncommon. Non-degenerative leiomyomas on both T1- and T2-weighted images on magnetic resonance imaging can be seen as low-signal intensity nodules with smooth surface. Submucosal localization with intact mucosa is a characteristic feature of leiomyoma. Conversely, transitional cell carcinoma affects mucosa. Definitive diagnosis requires histopathology by urethro-cystoscopy.

Keywords: Bladder leiomyoma, MDCT, MRI

P - 010

SKROTAL LEIOMYOMA: MRI FINDINGS

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Abstract

Objective: Leiomyomas are benign neoplasms that can develop from any organ and structure, including smooth muscle. Scrotal leiomyomas are very rare tumors. We aimed to present magnetic resonance imaging (MRI) findings of a case of scrotal leiomyoma in a 44-year-old male patient.

Materials and Methods: A 44-year-old male patient with painless scrotal mass was examined by 1.5 Tesla MRI (Magnetom Avanto, Siemens Healthcare) for scrotal imaging.

Results: In our case, there was an extratesticular mass in the left hemiscrotum. It was 21x17 mm in size, hypointense on T1 and T2 weighted images and showing relatively homogeneous contrast enhancement. The case was diagnosed as leiomyoma histopathologically as a result of surgical excision.

Conclusion: In contrast to testicular tumors, most extratesticular solid masses are benign. Paratesticular tumors may arise from epididymis, tunica albuginea, spermatic cord, and scrotal smooth muscle. Skrotal leiomyoma usually occurs between the fourth and sixth decades of life and presents with a clinically painless scrotal mass. On magnetic resonance imaging, both T1- and T2-weighted images show low-signal intensity nodules with smooth surface. A fibrous pseudotumor should also be considered in the differential diagnosis. The treatment is surgical excision.

Keywords: Scrotal leiomyoma, MRI

P - 011

TESTICULAR ABSCESS: MRI FINDINGS

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Abstract

Objective: Intratesticular abscess is a rare clinical entity. We aimed to present magnetic resonance imaging (MRI) findings of a case of testicular abscess that completely covered the right testicular tissue in a 53-year-old male patient.

Materials and Methods: A 53-year-old male patient with a painful scrotal swelling was examined with 1.5 Tesla MRI scans (Magnetom Avanto, Siemens Healthcare).

Results: In our case, scrotal Doppler ultrasound revealed a complicated hypoechoic area without vascularization in the right testis, and MRI imaging was performed. MRI examination showed testicular abscess in the right hemiscrotum, that completely covered the right testicular tissue. Abscess in size of approximately 6x5.5 cm, showed diffusion restriction on diffusion-weighted images and septal and peripheral contrast enhancement after contrast injection. Orchiectomy was performed with a diagnosis of abscess.

Conclusion: Intratesticular abscesses are usually *E. coli* lesions that can spread as hematogenous or urine reflux in association with advanced or untreated epididymoorchitis. Testicular parenchyma spread may occur in 5.5% of untreated epididymo-orchitis. Immunosuppressed and diabetic patients are at risk. Diagnostic scrotal doppler ultrasonography and scrotal MRI can be used. More than 50% of cases result in orchiectomy.

Keywords: Intratesticular abscess, magnetic resonance imaging

P - 012

A RARE BENIGN SPLENIC LESION: SCLEROSING ANGIOMATOID NODULAR TRANSFORMATION (SANT)

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Abstract

Sclerosing angiomatoid nodular transformation (SANT) is a rare, benign, proliferative vascular solid lesion of the spleen which was first described by Martel et al. in 2004 and around a hundred cases have been reported so far. Most benign splenic solid lesions are detected incidentally on cross-sectional imaging. Although it is difficult to make a proper diagnosis only by imaging, some certain characteristics of solid splenic lesions may help to differantiate between them. We present MRI findings of SANT which detected incidentally in a 50 year old male patient who had undergone contrast-enhanced thorax CT examination for his respiratory complaints.

Keywords: SANT, MRI, spleen

P - 013

PRIMARY HEPATIC TERATOMA: A RARE CAUSE OF CYSTIC LIVER MASS IN AN INFANT

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Abstract

Introduction: Teratoma is one subtype of the germ cell tumor group that develops most commonly in ovaries or testicles.Teratoma of the liver is a rare neoplasm accounting for less than 1% of all teratomas. Less than 50 cases of primary hepatic teratomas has been described in the literature. The aim of this case report is to discuss the imaging findings of teratoma of the liver in an infant.

Case Report: A 2 month old girl, whose neonatal ultrasound examination revealed an incidental cystic liver lesion was further investigated with MRI. MRI demonstrated a cystic lesion with thin wall and a few septation which was located in gallbladder site and extended to the liver parenchyma. Fat or amorphous calcification signal was not seen in the lesion. In our case operation was planned due to possible association of the cystic lesion with the bile ducts. During the dissection, the cyst was perforated and the bile was seen as discharging from cyst lumen. Pathological examination revealed that the internal surface of the cyst lumen was lined by primarily biliary epithelium, occasionally lined with respiratory and gastric epithelium. With all these findings, the final diagnosis was primary hepatic cystic teratoma.

Discussion: Teratomas are often incidentally detected and symptoms are usually due to the mass effect on surrounding organs. Although it is typical to see fat or calcification in the teratomas of the liver, it is described in the literature that in some cases there may not be both, as in our case. In conclusion, although primary hepatic teratoma is a rare neoplasm, it should be remembered in the differential diagnosis of cystic liver lesions in the pediatric population.

Keywords: Teratoma, MRI, cystic mass, infant

P - 014

PRIMARY PELVIC MYXOID LIPOSARCOMA MIMICKING AN OVARIAN MASS: MRI FINDINGS

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Abstract

Introduction: Myxoid liposarcoma is a malignant neoplasia of fat tissue which is usually located at lower extremities, particularly thighs.

Liposarcomas involving the pelvis are uncommon and reported in few case reports in the literature. We present an unusual case of a myxoid pelvic liposarcoma that presented as a mass near right ovary mimicking a primary ovarian tumor.

Case Report: A 25 year-old woman presented with right flank pain. A urinary US revealed right hydronephrosis with right proximal ureter compressed with an adnexial mass. In pelvic MRI, T2-weighted imaging demonstrated a 5 cm hyperintense mass near the right ovary. However, the mass was located outside of the ovary regarding extraovarian origin. In addition, abrupt interruption of right ureter with proximal dilatation was a clue for retroperitoneal location. Fat signal was not demonstrated in the lesion. In postkontrast imaging, intense contrast enhancement was seen in the lesion. Tumor markers and laboratory findings were in normal limits. Operation was planned due to suspicion of malignancy. At laparotomy, a mass was identified near the right external iliac vessels and apart from the right ovary. The mass was separated from the ureter and removed. Histopathological analysis showed that the mass consisted of a myxoid matrix as the predominant component with small amount of fat regarding the diagnosis of myxoid liposarcoma.

Conclusion: In young female population, myxoid liposarcomas may present as a pelvic mass mimicking an ovarian neoplasm. MRI findings are important to show the origin of those tumors, enable the proper diagnosis and surgical planning.

Keywords: Myxoid liposarcoma, pelvis, retroperitoneum, magnetic resonance imaging

P - 015

COMPUTED TOMOGRAPHY AND MAGNETIC RESONANCE IMAGING FINDINGS OF CLEAR CELL CARCINOMA ARISING FROM ENDOMETRIOSIS IN THE ABDOMINAL WALL

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Abstract

Endometriosis is defined as the presence of endometrial tissue outside the uterine cavity. It is usually located in the ovaries and pelvic peritoneum but it can be found in the lung, bowel, ureter and abdominal wall. It affects approximately 15-40% of women of reproductive age. Endometriosis-associated abdominal wall cancer (EAAWC) is a rare condition, with poor prognosis. Few cases have been reported in the literature. Abdominal wall is one of the most common locations of endometriosis outside the peritoneal region. In most of the cases a prior caesarean section or other gynaecological operations cause the seeding of endometrial tissue implants in the abdominal wall.

Here, we report a case of 43-years-old female with clear cell adenocarcinoma derived from pathologically confirmed endometriosis in the abdominal wall. On computed tomography (CT) there was a well circumscribed, multiloculated, hypodense cystic large mass with solid parts in the left rectus muscle. On magnetic resonance imaging (MRI) the mass had a malignant appearance which was predominantly cystic with enhancing solid components. The patient underwent laparatomy and histopathologically confirmed the diagnosis of clear cell carcinoma arising from endometriosis.

Keywords: Endometriosis, clear cell carcinoma, abdominal wall, mri

P - 016

OVARIAN MATURE CYSTIC TERATOMA WITH MULTIPLE KERATIN BALLS: THE IMPORTANCE OF DIFFUSION WEIGHTED IMAGING IN DIAGNOSIS

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Abstract

Introduction: Floating keratin balls are uncommon features of ovarian mature cystic teratomas (MCT) which are described in few case reports. Diffusion weighted imaging (DWI) is helpful in demonstrating the keratin content, especially when the teratoma does not contain major fat. We present an unusual case of MCT with multiple floating keratin balls which were diagnosed with DWI.

Case Report: A 57 year-old woman presented with a pelvic mass. A pelvic ultrasonography revealed a 12 cm cystic mass in the pelvis with multiple floating echogenic spherules within it. Magnetic resonance imaging demonstrated multiple floating balls with intermediate T2 signal intensity. Major fat signal was not demonstrated in the cystic lesion, however minor fat was seen in the floating balls in T1 DIXON imaging. DWI showed evident diffusion restriction in those balls regarding viscous keratin content. Tumor markers and laboratory findings were in normal limits. Operation was planned with diagnosis of ovarian teratoma. At laparotomy, a cystic mass was identified originating from the right ovary. Smooth globules were felt manually inside the mass. The mass consisted of creamy yellow liquid with compacted round shaped keratin material. Mature cystic teratoma was diagnosed after histological examination.

Conclusion: Floating balls in mature cystic teratomas shows evident diffusion restriction due to viscous keratin material. DWI may help in diagnosis by detecting keratin content, particularly in teratomas without apparent fat.

Keywords: Mature cystic teratoma, floating ball, keratin, diffusion weighted imaging

P - 017

IG G4- RELATED AUTOIMMUNE CHOLANGITIS: CT AND MRI FINDINGS

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Abstract

Objective: Immunoglobulin G4-related disease is a new clinical entity that has unique clinical, serological, radiological and pathological features with multiorgan involvement. Autoimmune cholangitis is a part of this clinical picture. We aimed to present computed tomography (CT) and magnetic resonance imaging (MRI) findings of Ig G4-related autoimmune cholangitis (IgG4-RAC), which was diagnosed histopathologically.

Materials and Methods: A forty three year-old male patient was admitted to our hospital with complaints of abdominal pain and jaundice for 10 days. There was a history of cholecystectomy. CT and MRI were performed.

Results: CT showed a lesion with soft tissue density at extrahepatic bile ducts. MRI showed hypointense lesion at the junction of right and left intrahepatic bile ducts on T1 and T2 weighted images. There was mild enhancement on late phase. We observed slightly restricted diffusion on diffusion MRI. Serum Ig G4 level was increased. The patient underwent surgery because the findings didn't exclude cholangiocarcinoma. Histopathologic evaluation showed IgG4-RAC, chronic inflammation and fibrosis.

Conclusion: IgG4-RAC is an autoimmune disease usually involving bile ducts, and is associated with autoimmune pancreatitis by 90%. Diagnosis is very difficult if autoimmune pancreatitis is not accompanied, as our case. It may mimic many diseases such as primary sclerosing cholangitis, pseudotumoral lesions, and cholangiocarcinoma. Serum Ig G4 level elevation is an important finding but is not sufficient for diagnosis alone. IgG4-RAC can be diagnosed by clinical, serological, radiological and histopathological findings. Differential diagnosis is important to guide the treatment of the disease.

Keywords: Autoimmune cholangitis, Ig G4, MRI

P - 018

HEPATIC INVOLVEMENT OF NON HODGKIN LYMPHOMA IN A PEDIATRIC PATIENT

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Abstract

Non-Hodgkin lymphomas are heterogeneous group B or T cell malignancies that usually originate from lymphocytes. We present an 8 year old child diagnosed to have invagination with ultrasound complaining abdominal pain. Abdominal CT demonstrated the invaginated segment in right lower quadrant as well as lymphadenopathy and multiple liver masses. MRI, besides the invaginated segment and lymphadenopathies, demonstrated bone marrow infiltration as well as the T2 hyperintense and diffusion restricted multifocal liver masses. Hepatic involvement caused by granulomatous diseases can be particularly challenging to differentiate from lymphoma, since they can also result hepatic and lymp node involvement. Presence of necrotic rim-enhancing lymph nodes in tuberculosis and T2-hypointense nodules in sarcoidosis may help the differential diagnosis. Regarding the involvement of multiple systems; liver, intestine, lymph nodes and bone marrow, lymphoma will be esentially encountered in the differential diagnosis.

Keywords: Non Hodgkin lymphoma, liver, invagination

P - 019

A VASCULAR HERO: SUPERIOR MESENTERIC ARTERY SUPPLYING THE GASTROINTESTINAL SYSTEM, HEPATOBILIARY SYSTEM AND THE SPLEEN ON ITS OWN

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Abstract

In patients with celiac axis stenosis the most common and important collateral vessels from the SMA are the pancreaticoduodenal arcades and the dorsal pancreatic artery. Severe stenosis of the celiac artery is commonly associated with enlargement of the arteries of the pancreaticoduodenal arcade. Here we present a case with celiac axis and inferior mesenteric artery occlusion which resulted in superior mesenteric artery supplying the whole gastrointestinal system, hepatobiliary system and the spleen on its own.

Keywords: MR angiography, celiac axis occlusion, superior mesenteric artery

P - 020

A BENIGN DIAGNOSIS MIMICKING PERITONEAL CARCINOMATOSIS, CONFUSED WITH OVARIAN CANCER IN IMAGING: MULTICYSTIC PERITONEAL MESOTHELIOMA

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Abstract

Multicystic peritoneal mesothelioma (MPM) is a benign, rare disease caused by mesothelial cells surrounding serous membranes. Pleural, pericardial, or peritoneal origin may occur and is frequently caused by the pelvic peritoneum. The incidence is 2/1,000,000 per year. According to our knowledge, up to 200 cases have been reported in English language papers. Preoperative diagnosis is difficult because of its rare

occurrence, imaging findings are not specific, and there are no obvious diagnostic clinical manifestations. Patients usually have the preoperative diagnosis of peritonitis carcinomatosa, pseudomyxoma peritonei, appendicitis, or ovarian tumors. Ancestral diagnosis is made only by the pathological evaluation of surgical specimens. If female patients present with multicystic lesions in the pelvic region in the form of grape clusters, If the patients CEA and CA-125 values are close to normal or normal, and if there is a clinical history of pelvic operation, MPM should be considered in the differential diagnosis. We hereby present the imaging findings of a 45-year-old female patient diagnosed with postoperative multicystic peritoneal mesothelioma and aim to compare them to cases reported in literature.

Keywords: CT, MRI, multicystic peritoneal mesothelioma, peritoneal carcinomatosis

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ADRENIFORM SHAPE OF NON-ADENOMA ADRENAL LESION: LYMPHOMA

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Abstract

Introduction: Nod Hodgkin lymphoma (NHL) frequently involves adrenal gland and to be usually bilateral. The computed tomography (CT) and magnetic resonance imaging (MRI) is the most important radiological imaging modalities for differentiating other malignant lesions of adrenal gland from lymphoma and prevent unnecessary surgical interventions to adrenal lymphoma.

Case Report: A 37-year-old male patient with a complaint of malaise applied to the internal medicine in February 2017. No significant findings were found in the blood tests. As he described a blunt pain in the left upper quadrant on physical examination, abdominal ultrasonography (US) was performed. A hypoechoic lesion was detected adjacent to the upper pole of left kidney. The abdominal CT with intravenous contrast material revealed a huge nonadenom adrenal mass lesion with 51x43x64 mm size. The significant finding was an adreniform shape of the gland was maintained in the lesion. The magnetic resonance imaging (MRI) was also scheduled.

Discussion: Secondary involvement of the adrenal gland with NHL has been reported in as many as 25% of the patients. The adrenal lymphoma should be considered in patients with an adreniform shape of a non adenoma adrenal lesion on CT. The MRI enables differentiation of adrenal adenomas from other adrenal malignancies, but specific diagnosis might not be achieved with this modality. In our previous radiological experience, we couldn't see any nonadenom lesion of gland-like adreniform shape.

Keywords: Lymphoma, adrenal, adreniform shape

P - 022

CAVERNOUS TRANSFORMATION OF THE PORTAL VEIN MIMICKING TUMOR: A PSEUDOTUMOR

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Abstract

Cavernous transformation of the portal vein occurs when the portal vein is thrombosed. Cavernous transformation results from recanalization of the portal venous thrombus as well as dilatation of paracholedochal veins in an effort to bypass the portal venous obstruction. Cavernous transformation has been shown to form as early as 6 to 20 days after acute thrombosis of the portal vein. Cavernous transformation may cause wall thickening in the biliary system, stenosis, dilatation in intra-extrahepatic bile ducts, and pseudotumor appearance. Cavernous transformation may cause a mass appearance in the liver and secondary dilatation of the bile duct. For this reason, it is in the differential diagnosis of the masses in the hilus of liver and it should also be made of the distinction of inflammatory pseudotumor. Diffusion imaging can be used at this distinction. Our purpose in this presentation is to describe and evaluate MR findings of tumorlike changes in three patients with cavernous transformation of the portal vein.

Keywords: Cavernous transformation, MRI, pseudotumor

P - 023

A RARE ADRENAL TUMOR: ONCOCYTIC ADRENOCORTICAL CARCINOMA

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Abstract

Oncocytic tumors are mostly benign tumors that originates from kidneys, thyroid, parathyroid, salivary and pituitary glands. Oncocytic tumors of adrenal glands are so rare and generally nonfunctional benign tumors. According to Lin-Weiss-Bisceglia criteria, oncocytic neoplasms divided into three groups histologically; benign oncocytoma, oncocytic neoplasm with indeterminate malignant potential and oncocytic carcinoma. Up to now, 36 cases of oncocytic adrenocortical carsinoma have been reported in the literature. Conventional adrenocortical carsinomas have biphasic age distribution (first and fifth decade) and female dominance but adrenocortical oncocytic carcinomas are only reported in adults and has no gender dominance. Conventional adrenocortical carsinomas are generally presented with findings caused by hormone hypersecretion but adrenocortical oncocytic carcinomas are generally presented with abdominal discomfort and back pain caused by mass effect. There are many studies in the radiology literature about oncocytic neoplasms of kidney but studies on the imaging findings of adrenal oncocytic tumors are limited. In this case report, our aim is to present magnetic resonance imaging (MRI) findings of oncocytic adrenocortical carcinoma in a 60 year old female patient and to compare with the findings in the literature.

Keywords: Adrenal gland, magnetic resonance imaging, oncocytic carcinoma

P - 024

A RARE CASE OF GRANULOMATOUS PROSTATITIS AND PROSTATIC ABSCESS: GRANULOMATOUS POLYANGIITIS

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Abstract

Granulomatous polyangiitis is a rare necrotizing vasculitis which causes systemic involvement of paranasal sinus, lung, genitourinary tract etc. Although it is rare, the lack of proper diagnosis and treatment may increases the morbidity and mortality. Genitourinary system involvement is most commonly seen in the kidney, while the urethra, prostate, vagina, and testis are also can be involved. In our patient with Wegener granulomatosis, the involvement of the lung, paranasal sinus, ear and prostate gland are biopsy-proved. We discuss 32-year-old male patient refered to our hospital with eksternal otitis symptoms, hearing loss in the right ear, wound in nose and mouth, nose bleeding, hemoptysis and recurrent pneumonia. Then patient had developed diysuria, hematuria and fever not responsive to antibiotics. The CT scan of the chest, showed multiple cavitary and non cavitary nodules. Anti-c ANCA was positive and granulomatous polyangiitis was diagnosed. Prostate MRI was performed on the presence of heterogeneity in the prostate gland in abdomen CT.Prostate MRI revealed a horseshoe-shaped abscess cavity in the internal gland of prostate. In biopsy materials obtained from the prostate gland, necrotizing granulomatous inflammation and microabscess formation were detected (8). Prostate gland involvement is a rare finding of microscopic polyangiitis. The possibility of microscopic polyangiitis should be kept in mind, when antibiotic resistant prostatitis occurs in younger patients, with no predisposing factor (suspicious sexual intercourse, etc.). If necessary, biopsy should be performed in such cases

Keywords: Vasculitis, Wegener granulomatosis, prostatic abscess

P - 025

MALIGNANT MIMIC: PELIOSIS HEPATIS

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Abstract

Peliosis hepatis is a benign vascular disease cystic spaces ranging from 1 mm to several cm rarely seen in hepatic sinusoids.Pathogenesis is not fully explained. The cases of 20-50% are idiopathic. Distortion of sinusoidal borders and dilatation of the vessel at the center of the hepatic lobule are suggested in the etiology. Patients are usually asymptomatic, but in some cases, bleeding may occur and lead to hepatomegaly and liver failure. Additionly, etiology includes toxins, drugs, anabolic steroids, corticosteroids, immunoglobulin therapy and chronic diseases such as HCC, malignancy, tuberculosis. There may be spleen and bone marrow involvement. It is important to recognize this antiquity, as this appearance may mimic malignancy. We aimed to present the radiological findings compatible with peliosis hepatis in a 71-year-old woman.

Keywords: Peliosis hepatis, hepatic sinusoid cystic dilatation

P - 026

BILATERAL GIANT MATURE CYSTIC TERATOMA

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Abstract

Dermoid cyst also known as mature cystic teratoma is a germ cell tumour that is stemmed from all three germ layers. Tumor may contain components of different germ layers such as fat, tooth or hair. Although most cases are originated from gonads, it may be found in other locations including anterior mediastinum, gastrointestinal tract, or retroperitoneal space. Although it is a benign entity, it may reach to massive sizes and lead to further complications such as torsion or rupture. Thus, knowledge of imaging properties and accurate diagnosis of mature cystic teratoma is important. US is preferred imaging modality and MRI is useful for difficult cases. We herein report imaging findings of a case with two giant dermoid cysts in pelvic region.

Keywords: Dermoid cyst, mature cystic teratoma, germ cell tumor

P - 027

A RARE COMPLICATION FOLLOWING RADICAL PROSTATECTOMY: INABILITY TO WALK

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Abstract

Pubic complications after radical prostatectomy are rare. Osteonecrosis and inflammation of pubic rami present with severe pain during adduction and ambulation of the leg which causes diffuculty during walking. A 65-year-old male patient is scheduled for radical prostatectomy and radiotherapy with diagnosis of prostatic adenocarcinoma. Incontinence and walking difficulty occured during postoperative period. Abdominal and pelvic CT scans was negative for acute pathology. Contrast enhanced MRI of pelvis was performed. MRI demonstrated pubic osteonecrosis, inflamatory changes at pubis, edematous signal changes in adductor muscles, collection in symphysis pubis connected to prostatic urethra. Fluoroscopy guided percutaneous sampling from collection at symphysis pubis showed urine. Contrast material injected to joints pace reached to prostatic urethra and bladder. In this case we showed inability to walk is related to urethral fistulation to symphysis pubis and secondary inflammatory changes.

Keywords: Radical prostatectomy, fistula to symphysis pubis, inability to walk

P - 028

MAGNETIC RESONANCE FINDINGS OF DUODENAL DUPLICATION CYST: CASE REPORT

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Abstract

Objective: We aimed to present magnetic resonance imaging (MRI) findings of a case with duodenal duplication cyst which composes the 2-12% of gastrointestinal system duplication cysts.

Materials and Methods: The initial B-mode US examination of a 8-year-old male with the complaints of abdominal pain, nausea and vomiting revealed a cystic lesion adjacent to the head of pancreas. Contrast-enhanced abdominal computed tomography revealed a 4x3 cm thick-walled cystic lesion at the second part of duodenum. MRI and MRCP examinations were planned in order to correlate the cystic content of the lesion that was described in the US and CT, and to evaluate the possible connection of the cystic lesion with pancreatic duct. In the abdomen MR and MRCP of the patient revealed a well-defined, homogeneous, uniformly bounded T2-weighted hyperintense cystic lesion with distinct walls and suspicious connection by the doudenum lumen. The size of the lesion was approximately 45x35 mm and it was located adjacent to the second part of duodenum and segment of the common bile duct by the head of pancreas.

Results: Due to the MRI findings of our patients indicating the diagnosis of duplication cyst, surgical resection of the cyst was decided. The histopathologic examination of the lesion was resulted as "duplication cyst".

Conclusion: Duplication cyst is a rare congenital condition that forms during the embryonic period of alimentary tract development. Cysts are mostly within 2 to 4 cm in size. They occur frequently in the distal ileum. Conversely duodenal duplication cysts are very uncommon and represent only 2 to 12% of all digestive tract duplications. Imaging techniques initially suggested for pre-diagnosis, however histopathologic analysis must be performed for the confirmation. The criteria required for the definitive diagnosis are the presence of alimentary mucosal lining, a smooth muscle coat, and an intimate attachment to the native gastrointestinal tract. Considering the present findings, duodenal duplication cyst should be considered in the differential diagnosis of cystic lesions that are adjacent to the pancreatic head section and second part of the duodenum.

Keywords: Duplication, cyst, duodenum

P - 029

A RARE CAUSE OF ADNEXAL TORSION: OVARIAN DYSGERMINOMA

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Abstract

Introduction: Dysgerminoma is a rare ovarian tumor, accounting for 3-5% of all ovarian malignancies and for 30-50% of all ovarian germ cell tumors. Adnexal torsion is an uncommon but significant cause of acute lower abdominal pain and morbidity. There are few reports of adnexal torsion due to dysgerminoma in the literature. In this case report we want to present radiological findings of ovarian dysgerminoma that cause adnexal torsion.

Case Report: A 30-year-old woman was admitted to the emergency service with acute abdominal pain in the right iliac fossa. Except weak hCG positivity, her laboratory findings were unremarkable. Due to suspicions of early pregnancy, US and MRI were performed to identify the etiology. MRI revealed a large (10.5x9x5.5cm), twisted, heterogeneous and predominantly solid pelvic mass on the right adnexal side. Color Doppler US demonstrated intratumoral flow signals. US showed the normal size uterus and the left ovary. After surgery this tumor was diagnosed histopathologically as pure dysgerminoma of the right ovary.

Conclusion: Ovarian dysgerminoma may present as an acute abdomen because of adnexal torsion and passive blood congestion. Ovarian dysgerminoma causing adnexal torsion should be considered in the differential diagnosis in a young woman with acute abdomen.

Keywords: Adnexal torsion, dysgerminoma, MRI

P - 030

A RARE CASE: PRIMARY MUCINOUS ADENOCARCINOMA OF VAGINA

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Abstract

Primary vaginal carcinoma is rare, accounting for only 1%-2% of gynecologic malignancies. Of these, approximately 90% are squamous cell carcinomas, with only 10% being adenocarcinoma.Squamous cell carcinoma is more commonly seen in postmenopausal women and tends to occur in the proximal third of the vagina, in the posterior wall.Primary vaginal adenocarcinoma typically occur in younger women, mainly in the upper third and anterior wall of the vagina.Most vaginal adenocarcinomas are of clear cell histology. Mucinous adenocarcinomas of the vagina are rare and can be further subtyped into endocervical and intestinal types.Intestinal type can not be distinguished pathologically from colorectal carcinoma metastasis, and a full clinicoradiologic workup of the patient is mandated prior to making this rare diagnosis.On MRI, a mucin-producing adenocarcinoma show higher signal components on T2-weighted images than other vaginal carsinomas.Mucinous adenocarcinoma of vaginashould be considered in the differential diagnosis when high signal intensities similar to cyst are seenin a vaginal mass on T2-weighted images.In this case report, we aimed to present MRI findings of primary vaginal mucinous adenocarcinoma in a 46 year old female patient.

Keywords: MRI, mucinous adenocarcinoma, vaginal mass

P - 031

AN ATYPIC PROSTATE ADENOCARCINOMA METASTASIS

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Abstract

A 72 year old men with prostate cancer and radical prostatectomy, was admitted to our MRI unit for Brain MRI to exclude any metastasis referred to this area.To our surprise, There were multipl heavily enhancing metastatic nodules and masses in the right petroz apex, in the Subcortical white matter of right temporal fossa, clivus in the midline, right parasellar region. There were also multipl enhancing diffuse and/or nodular metastasis in the dura of right temporo-parietooccipital region and right frontal cortex at vertex.

Keywords: Prostate, adenoca, MRI-metastasis, clivus-dural

P - 032

LEFT RENAL GIANT ANGIOMYOLIPOMA AND MULTIPL IATROGENIC COMPLICATIONS DUE TO REPETITIVE BIOPSY APPLICATIONS

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Abstract

A 57 years old men with huge renal mass was referred to our CT and MRI units from Urology clinics, a giant left renal mass over 15 cm. diameter was observed, this mass contains minimal solid area but huge amount fatty component and also 1.5 cm stone was seen in the middle pole.Gerota fascia was also obviously thickened mostly at the lower retroperitoneal area.We reported that left renal mass is most likely to be fat rich-Angiomyolipoma and follow up of mass by CT and MRI was advised but unfortunately, urologists applied multipl true-cut and/or open surgical biopsies to this huge mass and lots of unwanted complications occured due to these interventions like left diaphragm perforation, multipl lacerations of spleen,plevral and pericardial effusion,perforation of same jejenal segments and etc.He had hospitalized for approximately 3 months and then discharged with almost total cure, Histopathology only stated adipose and fibrous tissue persistence at those unnecessary interventional procedures.

Keywords: Angiomyolipoma-renal-iatrogenic-biopsy-complications.

P - 033

A RARE CASE: CASE REPORT OF HERLYN-WERNER-WUNDERLICH SYNDROME

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Abstract

Objective: We aimed to present the rare Herlyn-Werner-Wunderlich (HWW) syndrome with the context of MR and Ultrasonography (USG) findings.

Materials and Methods: A 15-year-old female patient was admitted to the clinic with complaints of pelvic pain. After the physical examination USG was taken to the patient. On the USG, a cystic lesion with a level of 5 cm was observed in the widest area extending from the left adnexial area to the umbilicus level. And performed contrast enhanced pelvic MRI to the patient.

Results: Images of the MRI shows the uterus didelfis appearance and its right segment is naturally seen. The segment on the left is dilated and hyperintense (hemorrhagic) fluid values are observed in T1-weighted series in the endometrium (hematometry). Dilated tortious tubular appearance is observed in the widest part extending to the lateral level of the superiorly umbilicus associated with the left segment, reaching a diameter of approximately 5 cm. Hyperintense fluid values are monitored in luminal T1-weighted series (Hematosalpinx). The left kidney wasnt observed. Together with these findings, the case was interpreted as HWW syndrome.

Conclusion: HWW syndrome is a rare mullerian duct anomaly characterized by obstructive hemivagina and ipsilateral renal agenesis with uterus didelfis. The actual incidence is unknown, but reported between 0.1% and 3.8%. CT and USG are the most common diagnostic methods 4). However, MRI is thought to be more sensitive to imaging soft tissue anatomy and identifying fine details of congenital anomalies. If treatment is delayed, complications such as endometriosis, infections and pelvic adhesions may be develop.

Keywords: Herlyn-Werner-Wunderlich Syndrome, Hematosalpinx, mullerian duct anomaly

P - 034

IDENTICAL MASS WITH UNEXPECTED PLACEMENT: PRESACRAL & RETRORECTAL EPIDERMOID CYST

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Abstract

Epidermal cysts are congenital lesions with ectoderm origin. Although common in the brain, retrorectal & presacral region and they are quite rare. In this case report, we wanted to review the imaging findings of the epidermoid cyst, which is one of the rare presacral cystic masses. 42-year-old male was found to have a cystic mass in the pelvic cavity in abdominal

ultrasonography performed at the public hospital due to pain on the lumbar and sacral vertebra, dysuria, constipation and tenesmus symptom. Patient with no additional findings in physical examination; after, multislice computerized tomography (CT) with intravenous contrast administration was performed. On the CT examination, a multiloculated cystic mass was seen in the presacral space, located to the right of the midline, with high density contents (mean 24 HU), and thin wall, minimal ring enhancement and no internal septations. Subsequent Magnetic Resonance Imaging (MRI) showed high protein content with high T1W signal intensity and also very high T2 signal intensity in the cystic component, whereas other areas showed mild hyperintensity on T2W slices in multiloculated cystic mass. There was no change in signal intensity on the T1W fat saturated slices and no internal contrast enhancement except minimal ring enhancement in dynamic postcontrast series. In the diffusion MR examination, the most distinctive finding was that the mass showed significant diffusion restriction (ADC value: 0,79 $\times 10^{-3}$ mm²/sn). To our knowledge this finding is particularly important in the differential diagnosis of intracranial and intradural epidermoid cysts. In our case, surgery was performed and histopathological analysis confirmed the diagnosis of epidermoid cyst with high protein content. Retrorectal developmental cysts (tailgut cyst, epidermoid cyst, dermoid cyst, teratoma, and duplication) are very rare diseases and the symptoms are not characteristic and sometimes difficult to make the differential diagnosis of these masses with imaging modalities. The differential diagnosis should definitely include anorectal abscesses, complicated fistulas, and pylonidal disease. Significant heterogenecity in T1A and T2A sequences and significant diffuse restriction, which are two important imaging findings, are very helpful in distinguishing presacral epidermoid cysts from other lesions of this region.

Keywords: Epidermoid, cyst, MRI, presacral, retrorectal

P - 035

A RARE CASE: BLADDER INVASIVE APPENDIX ORIGIN MUCINOUS ADENOCARCINOMA

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Abstract

Objective: We aimed to present computed tomography (CT) and magnetic resonance imaging (MRI) findings of an appendix appendiceal mucinous adenocarcinoma.

Materials and Methods: A 53-year-old male patient was admitted to our hospital with complaints of abdominal pain, burning while urinating, and intermittent yellowing particles of the urine. We performed patient-contrast computed tomography (CT), which detected a lesion in the posterior wall of the bladder, and abdominal magnetic resonance (MRI) imaging, for detailed examination. Approximately 5x4 cm sized dilate tubular structure extending from the caecum to the posterior wall of the bladder and invading the mesentery was observed. There was no evidence of free fluid in the abdomen, inflammation in the perilesional mesentery, and pseudomycosis peritonei. Surgical right hemicolectomy and partial cystectomy were performed for the mass.

Results: T4b mucinous adenocarcinoma originating from appendix vermiformis, appendix full-layer invasive and extending to bladder serosa was reported as a pathologic conclusion.

Conclusion: Primary neoplasms of the appendix are very rare and less than 2% of the appendectomy materials are detected. According to WHO 2010 classification, appendiceal mucinous neoplasms are defined in 3 categories: mucinous adenomas, low grade mucinous neoplasms and adenocarcinomas. Pseudomycosis peritonei may occur due to overgrowth of musculus mucosa or peritoneal dissemination of tumor resulting from perforation. We aimed to present this case because of the absence of pseudomyxoma peritoneum and the first case in the literature with bladder invasion.

Keywords: Appendix, bladder invasive, mucinous adenocarcinoma

P - 036

TORSION OF WANDERING SPLEEN, PELVIC MASS MIMICS, A CASE OF CHILD

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Abstract

Wandering spleen is a term used for hypermobile spleen following abnormal localization. The spleen loses fixation on the abdominal wall in its normal location and changes its position. It is one of the rare causes of acute abdomen. It is usually asymptomatic but may be detected as a painless mass. However, rarely, tinnitus may result in splenic congestion, infarction that may be accompanied by adjacent tissuesIn our case, a 12-year-old girl was a case. Pelvic US; showed torsion of pelvic mass with pelvic pain. However, the ovaries were separately provided. In the MRI, vascularization in the pelvic region was decreased and hypointense pelvic mass was observed.Postoperative spontaneous torsion of the spleen was found in the pelvic region. It was presented with the reason that it was a rare acute cause.

Keywords: Wandering spleen, pelvic mass, torsion

P - 037

A RARE, RADIOLOGICAL AND CLINICAL DILEMMA: INGUINAL HERNIA OR NUCK CANAL CYST?

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Abstract

Nuck canal cyst is a rarely seen pathological condition due to the presence of patent processus vaginalis. Spermatic cord cysts that are detected

in males and nuck canal cysts are equivalent lesions. Typically irreductible, painless cystic mass lesion located at the inguinolabial region is seen. Redness, increase in temperature and pain extending from inguinal region to labium majus can be seen when cystic mass infected. A 36-year-old female patient admited to outpatient policlinic due to painless swelling in the left inguinolabial region. Ultrasonography (USG) and Magnetic Resonance Imaging (MRI) performed with a provisional diagnosis of inguinal hernia. On USG; a cystic mass with intralesional thin septations in the left inguinal canal was detected. There was no Doppler signal noted within lesion during sonograhic examination. In the left inguinofemoral region, non-enhancing cystic mass lesion with a size of 28x14 mm, which is hypointense on T1-weighted series, hyperintense on T2-weighted series demonstrated. After lesion surgically removed, pathologically diagnosed as Nuck canal cyst. Differential diagnosis of Nuck canal cyst also includes inguinal hernia, lymphadenopathy, neoplasia, bartolin cyst. In conclusion; Nuck canal cyst is rare but should be remember in female patients who had a cystic lesion containing pure cystic or septa in the inguinal region. Radiologists should be familiar with these rare lesions and these patients are playing a key role in getting them to be diagnosed faster.Thus; the number of unnecessary MRI examinations could be reduced and unnecessary surgeries may be prevent by diffrentiating Nuck canal cysts from inguinal hernia accurately.

Keywords: Inguinal hernia, nuck canal cyst and nuck canal hydrocele

P - 038

RENAL AND URETERIC TUBERCULOSIS RADIOLOGIC FINDINGS

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Abstract

A 53 year old woman who has DM history presented urology policlinic with painful urination. She had has this symptoms for five years. Her analysis result of urineare; leucocytes were three pozitive, glucose was three pozitive, erythrocyte was one pozitive. Because of these result MRI Urography was wanted. In MRI Urography; it was calyceal dilatation and peripheral wall thickining with contrast enhancement in left kidney superior zone. Left collecting system's wall were thickining and irregular. Correspondingly; pelvicalcyceal system was expansion in inferior zone and there was infindibular stenosis. Ureter tract was destroyed and from place to place narrowing and enlarged. Grade I-II hydronephrosis was left pelvicalyceal system. These findings are special for tuberculosis a patient has DM story who has these sypmtoms longstanding. In urine culture was proliferated TBC.

Keywords: Renal tuberculosis, MRI findings

P - 039

WHY SHOULD RADIOLOGISTS BE FAMILIAR WITH RETRORECTAL CYSTIC HAMARTOMA?

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Abstract

Presacral tailgut cysts, also known as retrorectal cystic hamartomas, are rare congenital lesions most often discovered incidentally in middle-aged women and believed to arise from aberrant remnants of the postanal gut when incomplete involution occurs during embryogenesis. Patients usually asymptomatic, patients may develop symptoms resulting from local mass effect. Patients may suffer from tenesmus, constipation, pain rectal fullness and urinary rate changes. Initial presentation may also be delayed until complications occur, including infection The most important complications of these cysts are infection with secondary fistulization and malignant degeneration. Cystic nature of the lesion can be demonstrated on sonographic examination. CT delineates a well- circumscribed hypodense mass. On MRI; lobulated, multloculated cystic lesion can be seen wich is hypointense on T1 and homogenously hyperintense on T2 sequences. Herein, we reported MRI findings of a patient with Retrorectal Cystic Hamartoma.

Keywords: Retrorectal mass, retrorectal cystic hamartoma, tailgut cyst

P - 040

A RARE CAUSE OF SONOGRAPHIC MURPHY SIGN: LOW GRADE GALLBLADDER CANCER PRESENTING AS A XANTHOGRANULOMATOUS CHOLECYSTITIS

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Abstract

Xanthogranulomatous cholecystitis (XGC) is a rare chronic inflammatory process characterized with multiple intramural nodules due to progressive fibrosis of gallbladder wall. The reported frequency of XGC is ranged from 1.3% to 5.2%. It is usually seen in women between 60 and 80 years of age. Approximately most of the patients has gallbladder calculus. In a small number of cases, cause of XGC and abdominal pain can be a gall bladder malignancy. Therefore; it is important to note that XGC and malignancy can be seen coexistently in a same gall bladder. Severe complications such as perforation, abse formation, adhesion to the intestinal wall and fistula may be seen. Sonographically diffusely or focal wall thickening of the gallbladder, hypoechoic nodule formation in the gallbladder wall, adhesion to liver parenchyma and generally accompanying gallbladder stones can be seen. On computed tomography, heterogeneously enhancing hypodense areas within the wall can be observed corresponding to sonographic appearance. Despite the fact that there is a limited literature data about Magnetic Resonance Imaging findings of XGC; continuous mucosal line, luminal surface enhancement, and gallbladder

stone highly suggest XGC. XGC may be misinterpereted as gall bladder malignancy due to increased wall thickness and focal adhesions or may be seen with gall bladder malignancy. In conclusion, although it is not a malignant pathology because of the severe complications of XGC and possible coexistence with malignancy, early diagnosis and appropriate surgical treatment are necessary. we presented a case in which sonographic Murphy sign was positive, sonographically wall irregularity observed and intramural collection and contrast enhancement seen on magnetic resonance imaging. Herein, we discussed MRI findings of a case pathologically confirmed as XGC and accompanying low grade gall bladder malignancy.

Keywords: Xanthogranulomatous cholecystitis, low grade gallbladder cancer, murphys sign

P - 041

IMAGING FEATURES OF ATYPICAL LOCALIZED LEIOMYOMA

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Abstract

Introduction: Leiomyomas are benign mesenchymal tumors that originates from smooth muscle. The most common area of occurrence in the body is the uterus. Rarely, they may develop at any sites where smooth muscle cells are found. Also malignant mesenchymal tumors such as leiomyosarcomas must be considered in the differential diagnosis of soft tissue tumors. Here, we report the computed tomography (CT), and magnetic resonance imaging (MRI) findings of a leiomyoma in the abdominal wall of the inguinal region.

Case Report: A 67-year-old female was referred a history of palpating mass in the right inguinal region. A physical examination showed a large and stiff mass at the anterior portion of right inguinal region. Consequently, CT, and MRI were performed. Contrast-enhanced-CT of the abdomen revealed a heterogeneously hypodense, lobulated mass in the right inguinal region, anteriorly and superior to the muscle pectineus, medial to femoral artery and vein. The lesion extends into the skin-subcutaneous fatty tissue and has irregular border with homogeneous enhancement. MRI images reveal, hypointense and lobulated mass on T1-weighted images (WIs) and mildly heterogenous hypointense on T2WIs compare to muscle. Fat-suppressed T1-weighted images obtained after administration of a gadolinium-based contrast material showed strong heterogeneous enhancement of the mass. The pathology revealed a leiomyoma of the abdominal wall.

Conclusion: MRI is the best radiologic imaging tools for the diagnosis of the soft tissue tumors. A leiomyoma in the inguinal region present as a well-defined and homogeneous soft tissue lesion on the MRI.

Keywords: Leiomyoma, magnetic resonance imaging

P - 042

METASTATIC POSTERIOR MEDIASTINAL NEUROBLASTOMA MRI FINDING

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Abstract

Objective: In this case, we aimed to present a case of metastatic neuroblastoma located in atypical localization in a 10 year old patient.

Materials and Methods: A 10-year-old girl, who was followed up for one week due to pneumonia at the external center, applied to the hospital for further examination.PA chest X-ray showed suspicious opacity in the lower right zone.Pulmonary and upper abdominal MRI examinations were performed for differential diagnoses.

Results: In the MR examination, 78x74 mm mass consisting of heterogeneous contrasting and cystic degenerated areas was observed in the right lower thoracic paravertebral region. The lesion could not be distinguished from the right adrenal gland. The lesion extends through the foramen on the medial side and narrows the right half of the spinal canal in a crescentic manner. In addition, the lesion was extended to the left paravertebral area and under the skin and signal changes compatible with invasion in adjacent ribs were observed. In the anterior of right lobe of the liver, a solid mass measuring 11x10 mm in size compatible with metastasis was observed. The case was diagnosed as neuroblastoma result of histopathologic examination.

Conclusion: Neuroblastoma is the second most common tumor encountered during childhood. Approximately 20% of all neuroblastomas originate posterior mediastinum. Neuroblastoma is seen as mixed intense masses in MRI. Neuroblastoma shows different staining patterns with intravenous contrast material. The staining can be diffuse homogeneous, heterogeneous or circumferential thin. When the mass reaches large dimensions, it can be observed that the ribs are displaced, thinned, and separated from each other.

Keywords: Neuroblastoma, posterior, mediastinal, metastatic

P - 043

PANCREATIC ADENOCARCINOMA ORIGINATING FROM HETEROTOPIC PANCREATIC TISSUE OF THE JEJUNUM; MRI FINDINGS

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Abstract

Objective: MRI findings of pancreatic adenocarcinoma originating from heterotopic pancreatic tissue of the jejunum. Heterotopic pancreas (HP) can be located in anywhere in the gastrointestinal system from the esophagus to the rectum. It has no vascular or anatomic contact with the pancreas. Spleen, liver, Meckels diverticulum, gallbladder, bile duct, or fallopian tube involvement is reported. It's a very rare entity (0.6–5.6% of autopsies) and usually incidentally detected. If symptomatic; epigastric pain, ileus, intussusception, bleeding, pancreatitis or very rarely carcinoma can occur. Fifty-one years old male patient consulted to emergency department with vomiting, intestinal obstruction symptoms.

Results: On contrast enhanced MDCT an infiltrative mass with no connection to pancreas in the duodenojejunal junction extending to jejunum was detected. On abdominal MRI, lesions enhancement and morphologic pattern was identical with pancreatic adenocarcinomas, diffusion was restricted. After excision of the jejunal tumor by laparotomy, biopsy revealed pancreatic adenocarcinoma in the jejunum.

Conclusion: Morphological and radiological findings of asymptomatic HP of the gastrointestinal system are very similar to other submucosal gastrointestinal stromal tumors. HP can show homogenous or heterogeneous enhancement pattern depending on the predominant histologic composition (acini or cystic ducts) of the heterotopic tissue (Heinrich's classification). When symptomatic, MRI demonstrates signal characteristics that may vary according to the cellular component of the lesion. Our case demonstrated similar signal, enhancement and morphologic characteristics with pancreatic adenocarcinomas. HP should be kept in mind, when a gastrointestinal pathology –a submucosal mass, an infiltrative tumor, inflammation or bleeding- reveals similar imaging patterns to pancreatic tissue.

Keywords: Heterotopic pancreas, MRI, pancreatic adenocarcinoma

P - 044

MRI FEATURES OF PROSTATIC MUCINOUS ADENOCARCINOMA: A CASE REPORT

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Abstract

Introduction: The mucinous subtype of prostate adenocarcinoma, also referred to as colloid adenocarcinoma, is extremely rare as a primary prostate lesion. The mucinous subtype of prostate adenocarcinoma has aggressive clinical behavior Surgical resection is the main therapeutic option. Herein, we describe the clinical and magnetic resonance imaging (MRI) features with histopathological correlation of a patient with prostate mucinous adenocarcinoma.

Case Report: A 48-year-old male presented with urinary symptoms, which were described as progressive urinary retention. The prostate-specific antigen (PSA) value was 2,55 ng/mL. MRI of the prostate was performed. MR images revealed a tumor extending from the base of prostate to the apex of prostate. The transitional zone of the prostate gland compromise of macrolobulated heterogenous, hyper-intense mass with hipointense capsule on the T2-weighted images (WI). The prostatic mass has central hyperintense areas within the mass on the T1WIs competible with mucin lakes. After contrast administration, the lesion demonstrated strong heterogeneous enhancement. Surgery was performed using a retropubic approach. Histopathological examination confirmed the presence of a prostatic adenocarcinoma with extraluminal mucinous pools involving >50% of the tumor volume. The final Gleason score given was 4+4=8 and the stage pT4.

Discussion and Conclusion: Primary prostatic mucinous adenocarcinoma is a rare and aggressive malignant tumor. The MRI features of mucinous adenocarcinoma is nonspecific, however, it can be seen hyperintense regions in the prostatic mass on on T1-WI and T2-WI due to presence of mucin pools. MRI is also helpful for detecting the invasion of adjacent tissues and staging.

Keywords: Prostatic mucinous adenocarcinoma, magnetic resonance imaging

P - 045

TYPE 2 LEFT RENAL VEIN VARIATION: MRI FINDINGS

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Abstract

We aimed to present the MRI findings of Type 2 left renal vein variation. Lomber MRI examination of a 59-year-old male patient revealed the incidental finding of Type 2 left renal vein variation where left renal vein had a retroaortic course joining inferior vena cava at the level of iliac vein bifurcation at the level fourth lomber vertebra. It results from the obliteration of the ventral pre-aortic limb of the left renal vein and the remaining dorsal limb turns into a retroaortic left renal vein. Variations in the vascular anatomy should be reported when they are detected to aid the surgical or interventional procedures which can potentially take place in the future.

Keywords: Renal vein, retroaortic, variation, MRI

P - 046

RARE PELVIC BASE HERNIA: SUPRAPRIFORM FORAMEN HERNIA

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Abstract

Perineal hernias are rare pelvic hernias, occurring through a defect in the pelvic floor musculature. More common in females, with peak

age of presentation between 40 and 60 years. Perineal hernias are classified as anterior or posterior depending on their relationship with the transverse perineal muscle. Anterior hernias are more common than posterior hernias, and occur almost exclusively in females.Large sciatic foramen-based hernias in the posterior group may cause symptoms such as sciatica, lumbago, and priformis syndrome. Clarification of etiology is very important for definite treatment and comfort of patient. We aimed to share the imaging findings of the patient who had followed as suprapriform syndrome for years and diagnosed as suprapriform herniation which was detected on perianal MRI examination in our clinic.

Keywords: MRI, suprapriform hernia, perineal hernia

P - 047

GIANT CISTERNA CHYLI

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Abstract

Cisterna Chyli is a normal anatomic structure in the retrocrural area where lymphatic channels are formed as a saccular dilatation just to the right of the abdominal aorta. Its main funciton is to transport digested fat. The size can be changed by contraction waves. It may also be confused with cystic lesions of the pancreas and retro-cranial lymph nodes due to its location. Differential diagnosis can be made with some criterias; such as, its characteristic location, structure, isointensity with CSF, and no significant change in the dimension within follow-ups. We wanted to share the findings of ultrasonography, computed tomography and magnetic resonance imaging of this rare giant cisterna chyli case.

Keywords: Cisterna chyli, MRI, cystic lesion

P - 048

ANCIENT SCHWANNOMA OF THE ISCHIORECTAL FOSSA-A RARE CASE WITH MRI FINDINGS

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Abstract

Ancient schwannomas are rare, encapsulated tumors of long duration and are benign in nature. Ancient schwannoma, a degenerative neurilemmoma, is a schwannoma subtype characterized by degeneration and diffuse hypocellular areas. These changes are believed to occur because it takes a long time for schwannomas to develop. Schwannomas with these degenerative changes can be misdiagnosed as sarcomas or as other forms of soft-tissue neoplasms. However, the radiologic features of Ancient schwannoma occurred in the ischiorectal fossa have been rarely reported. In this case, we describe the MRI findings in a case of a Ancient schwannoma involving the ischiorectal fossa of a known primary breast cancer 67-year-old woman.

Keywords: Ancient schwannoma, ischiorectal fossa, MRI

P - 049

ACCESSORY PANCREATIC LOBE: CASE REPORT

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Abstract

Accessory pancreatic lobe is a rare congenital duplication anomaly. Currently, Magnetic Resonance Imaging (MRI) and MR cholangiopancreatography (MRCP) is the first choice for investigating and diagnosing parenchymal and ductal pancreatic variations noninvasively. We aimed to report a case of a 68-year-old female patient diagnosed with accessory pancreatic lobe who investigated for biliary stone disease. She presented with recurrent episodes of epigastric and right upper quadrant pain since few months. MRI and MRCP investigated minimal biliary and gallbladder dilatation with cholelithiasis. Additionally, the duplicate pancreas detected incidentally that derived from the head of the normal pancreas, looped back to the duedonum, course inferiorly adjacent to the second portion of duedonum and ended adjacent to the right pararenal space. The duct of duplicated pancreas drained into main pancreatic duct at the head of the pancreas. The main pancreatic duct drained into the duedonum separately from the choledoc. The patient was explored for cholesistectomy and surgery confirmed MRI findings. Although these cases usually remain asymptomatic; duplicated pancreas, if undetected, may be the cause of postoperative complications following pancreaticobiliary interventional procedures or surgery. Congenital anomalies of the pancreas cause variable morphological changes of the organ that can be evaluated by means of imaging modalities including MR and MRCP.

Keywords: Pancreas, MRI, MRCP, accessory pancreatic lobe

P - 050

TRIORCHIDISM (CASE REPORT)

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Abstract

Introduction: Polyorchidism is a very rare anomaly, which is defined by the presence of more than two testicles. To date about 200 cases have been reported in literature. Triorchidism -three testicles- is the most common form of polyorchidism. Extra testicles are usually found on the left scrotum. The etiology of polyorchidism is thought to be an embryological developmental abnormalty during the formation of testicles. Usually, patients present with an asymptomatic mass. These extra testicles are at increased risk to develop malignancy and torsion. Polyorchidism classified into four types. Polyorchidism is usually diagnosed on the basis of color Doppler US, further supported by MRI.

Case Report: 32 years old man suffering from right testicular pain applied to our hospital. On physical examination there is a painless mass in the left scrotum; than he referred to our department for testis US.

Discussion: In testis US there were two testis in the left scrotum with their own epididymis. Than he was underwent to pelvic MRI. In pelvic MRI, there were two testis in the left scrotum. Both of them had their own epididymis and vas deferens (Type 4 polyorchidism). There were no sign of torsion or malignancy so patient was discharged by recommended to US follow- up per year.

Conclusion: Polyorchidism is a very rare anomaly. Doppler US is the preferred method for diagnosis and follow-up. MRI may use in complicated cases. Extra testicles are at increased risk to develop malignancy and torsion. When such risk developed the extra testicle must be excised surgically.

Keywords: Triochidism, color doppler US, MRI

P - 051

MR UROGRAPHY: URETEROVAGINAL FISTULA WITH DUPLICATED URETER

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Abstract

Ureterovaginal, vesicovaginal fistulas can occur after pelvic operations and the probability of them increases by the acompaniment of radiotheraphy. Other ethiologies are pelvic infectious and inflammatory diseases, traumas. Patients present with drainage of urine from vagina. Scopic imaging techniques, computed tomography and magnetic resonance (MR) imaging can be used for diagnosis. We aimed to demonstrate the probable fistula between urinery system and vagina with MR urography in our patient who complained of urine discharge into the vagina after hysterectomy operation. MR Urography images showed bilateral dublex collecting systems. On the left side both of the ureters fused proximally to the ureterovesical junction level and fistulised to vagina. Findings were compatible with ureterovaginal fistula. There was no vesicovaginal fistula detected. MR Urography findings were verified with cystoscopy and ureterovaginal fistula was repaired with transabdominal approach successfully without complication.

Keywords: Fistula, magnetic resonance imaging, urography, ureter, vagina

P - 052

EXTRAGENITAL ENDOMETRIOSIS MIMICKING CARCINOMA: A REPORT OF TWO CASES

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Abstract

Introduction: Endometriosis is characterised by the presence of functional endometrial glands outside the uterus. The most common extragenital location of the disease is gastrointestinal tract (GIT). Cases may be misdiagnosed as neoplastic diseases if this relatively rare entity is not evaluated

particularly. Here in this report of two cases, we aimed to present MR imaging findings of rectal and small bowel endometriosis.

Case 1: A 25-year-old woman had history of intermittant abdominal pain and defecation difficulty. Abdominal computed-tomography (CT) revealed a mass lesion that extend along cul-de-sac, invade cervix and posterior wall of uterine corpus. Pelvic magnetic resonance imaging (MRI) showed an

enhancing, diffusion-restricting lesion arising from posterior cervical wall, extending along cul-de-sac, invading rectum wall and radiating into surrounding tissue. Sagittal T2-weighted MR images showed "mushroom cap sign", which is considered as a specific finding of solid invasive endometriosis. In the direction of these findings an endoscopic ultrasound-guided biopsy was performed, the final pathologic results showed endometriosis with rectum involvement.

Case 2: A 44-year-old woman presented with chronic abdominal pain. Abdominal CT revealed segmental ileal bowel thickening and a soft tissue mass. MRI showed a diffusion restricting, progressive enhancing segmental intraluminal lesion which was thought to be a carcinoid tumor.

Colonoscopy was not diagnostic. Surgery was performed; pathologic results revealed multiple endometriotic lesions.

Conclusion: The most common extragenital location of endometriosis is GIT and it occurs in 3-37% of patients with endometriosis. Diagnosis of extragenital endometriosis can be difficult. Owing to the fact that differantial diagnosis consists mainly of neoplastic diseases which need radical surgical procedures, it is essential for radiologists to be aware of imaging findings of this entity.

Keywords: Endometriosis, bowel involvement, magnetic resonance imaging

P - 053

BLACK KIDNEYS: SIGN OF HEMOLYSIS ASSOCIATED WITH G6PDD

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Abstract

Iron overload results in susceptibility effect especially on gradient-echo sequences of magnetic resonance imaging (MRI). The major ethiologic factor of renal hemosiderosis is intravascular hemolysis which can be caused by paroxysmal nocturnal hemoglobinuria, sickle cell disease, valvular heart disease. Renal cortex is totally involved and seen in hypointense signal on both T1- weighted and T2-weighted images. A 64 year-old female patient who presented with epigastric pain, diarrhea and icteric sclera-skin. Allergy to fava bean and aspirin was detected in her medical history. Anemia, hyperbilirubinemia, and Glucose-6-phosphate dehydrogenase deficiency (G6PDD) was found in laboratory tests.There was no sign for renal failure. Abdomen MRI showed bilateral entire renal cortex hypointensity on T1- weighted in-phase, isointense on T1- weighted out of -phase, and hypointense on T2-weighted images, accompanied with hepatosplenomegaly. Findings were compatible with renal hemosiderosis caused by hemolysis as a result of G6PDD.To the best of our knowledge, there has been no case report presenting renal iron overload MRI characteristics on MRI. Acute hemolytic episodes can cause renal injury in G6PDD patients. MRI can be used for evaluating predisposition to renal injury in such patients, which needs to be investigated with further studies.

Keywords: Glucosephosphate dehydrogenase deficiency, hemosiderosis, kidney, magnetic resonance imaging

P - 054

A CASE OF CHOLESTEATOMA RARELY LOCATED IN THE MASTOID

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Abstract

Objective: We aimed to present a 33-year-old male with mastoid congenital cholesteatoma cholesteatoma that manifested as left otorrhea was presented in the presence of computed tomography (CT), magnetic resonance imaging (MRI) and diffusion-weighted image(DWI)

Materials and Methods: CT, MRI and DWI was used for diagnosis

Results: CT scan revealed a 3.5x2 cm size destructive lesion at left – sided mastoid cellüler. MRI scans revealed a 3.5x2 cm size cholesteatoma at left -sided with characteristic bright signal in T2 weighted imaging and restricted diffusion on DWI. Histopathologic studies revealed left mastoid cholesteatoma.

Conclusion: Congenital cholesteatoma confined to the mastoid process is a rare lesion. Symptoms are often lacking or nonspecific, and although cases have a congenital origin, the diagnosis often is not made until adulthood. CT, MRI and DWI are invaluable in the diagnosis of occult congenital cholesteatomas, especially those originating in the mastoid.

Keywords: Congenital cholesteatoma, CT, MRI, DWI

P - 055

A RARE LESION OF THE NECK: INTRANODAL MUCOEPIDERMOID CANCER

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Abstract

Mucoepidermoid cancers of the head and neck are mostly seen in the major salivary glands or in the intraoral minor salivary glands. It is quite rare to see in the neck lymph node without another known primary focus. In this case report, a 28 year old female patient with intranodal mucoepidermoid cancer in the neck is presented with magnetic resonance imaging findings.

Keywords: Neck, mucoepidermoid cancer, lymph node, magnetic resonance imaging

P - 056

SKIN METASTASIS OF LARYNGEAL SQUAMOUS CELL CARCINOMA

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Abstract

Skin metastasis is very rare in larynx cancer. It is often regarded as a sign of poor prognosis. The incidence of skin metastasis in head and neck cancers is less than 1%. In this case report, a 62-year-old male patient with skin metastasis of laryngeal squamous cell carcinoma is presented with magnetic resonance imaging findings.

Keywords: Larynx, squamous cell carcinoma, neck, magnetic resonance imaging, skin

P - 057

SINONASAL MYXOFIBROSARCOMA: MAGNETIC RESONANCE IMAGING FINDINGS

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Abstract

Myxofibrosarcoma is a malignant soft tissue tumor of fibroblast origin. It is more common in the trunk and extremities. It is rarely seen in the head and neck region. It is usually a slowly growing tumor with a high recurrence rate and occasionally distant metastasis. In this case report, a 55-year-old male patient with sinonasal myxofibrosarcoma is presented with magnetic resonance imaging findings.

Keywords: Myxofibrosarcoma, neck, magnetic resonance imaging, paranasal sinus, neck

P - 058

SECONDARY MIDDLE TURBINATE EXTENDING INTO THE CONCHA BULLOSA

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Abstract

Secondary middle turbinate is a rare osteomeatal variation. It is a bone structure extending from the lateral nasal wall to the middle meatus and covered with soft tissue. The frequency of appearance varies between 0.8% and 14.3% in different publications. It can be one-sided or two-sided. It can be accompanied with other osteomeatal variations. Secondary middle turbinate extending into concha bullosa is very rare. In this case report, a unilateral secondary middle turbinate extending into the concha bullosa encountered incidentally on magnetic resonance imaging of the brain is presented.

Keywords: Secondary middle turbinate, concha bullosa, middle turbinate

P - 060

SINONASAL INVERTED PAPILLOMA WITH THE CHARACTERISTIC SIGN "CONVOLUTED CEREBRIFORM PATTERN": A CASE REPORT

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Abstract

Sinonasal inverted papilloma (SIP) is a rare benign neoplasm of sinonasal cavities. It is locally aggressive and has malignant transformation potential; despite its benign histology. Thus making distinctive diagnosis of SIP from other benign sinonasal cavity lesions and careful surveillance for malignant transformations are essential. In this article, a 63-year-old man is reported who presented with nasal obstruction, headache and recurrent sinusitis. The patient was evaluated with CT and MRI. The preliminary diagnosis of SIP was confirmed histopathologically. With this case report we aimed to draw attention to characteristic imaging findings and highlight the risk of malignant transformation of SIP.

Keywords: Sinonasal inverted papilloma, malignant transformation, convoluted cerebriform pattern

P - 061

THYROID RELATED ORBITOPATHY CASE REPORT

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Abstract

Introduction: Graves' disease is a common thyroid-related autoimmune disease. Graves' ophthalmopathy is one of the complications of this disease and which is reduce the quality of patients life and makes visual disturbances. We presented MR images of a patient who had graves ophthalmopathy.

Case Report: 36-year-old female patient with diagnosis of Graves' disease was admitted to the hospital with the complaints that her eyes had protruded outward and restricted her eye movements. MR examination revealed exophthalmos, hypertrophy in all extraocular muscles and T2 hyperintensities in these muscles which were thought to be due to infiltration of fat tissue, retrocular fat tissue increase, lacrimal gland size increase, and maxillary sinus indentation of orbital floor.

Discussion: Graves disease is a multisystem disease of unknown cause characterized by one or more of the three pathognomonic clinical entities: Hyperthyroidism, infiltrative ophthalmopathy and infiltrative dermopathy. In the clinical features of thyroid orbitopathy are exophthalmos, upper and lower eyelid retraction, limitation of eye movements and eyelid edema. CT and MR imaging may show only markedly swollen retrobulbar orbital contents causing bilateral proptosis. Coronal images should be carefully assessed in evaluating the amount of orbital muscles hypertrophy and the optic nerve pressure. Other CT and MR imaging findings are increased orbital fat, edema (fullness) of the eyelids, enlargement (engorgement) of the lacrimal glands, proptosis, anterior displacement of the orbital septum, and stretching of the optic nerve. The increased orbital fatty tissue results in anterior displacement of the orbital septum and occasionally prolapse of lacrimal glands.

Keywords: Thyroid orbitopathy, graves disease, graves ophthalmopathy

P - 062

SKULL METASTASIS IN AN INFANT WITH NEUROBLASTOMA

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Abstract

Metastatic involvement of the skull can be seen in up to 25% of patients with neuroblastoma. Typical appearances include bone thickening, "hair-on-end" periosteal reaction, lytic defects, enhancing soft tissue masses, and separation of sutures. Here we present classic CT and MRI findings of skull metastasis of neuroblastoma in a six-month-old girl.

Keywords: Neuroblastoma, metastasis, bone, CT, MRI

P - 063

TAKAYASU ARTERITIS: MR ANGIOGRAPHY FINDINGS

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Abstract

Objective: Takayasu arteritis is an inflammatory disease that involves the major branches of the aorta, the aorta, and the pulmonary arteries. It affects large vessels and causes damage to the vessel wall. We have tried to present magnetic resonance imaging angiography (MRA) findings in a 30 year-old-female patient.

Materials and Methods: Neck MRA examination was performed in a 30-year-old woman with complaints of dizziness, fatigue and weakness with a 1.5 Tesla MR device (Magnetom Avanto, Siemens Healthcare).

Results: In our case, bilateral common carotid arteries, internal and external carotid arteries, vertebral artery, subclavian arteries and aorta to be more prominent on the right side showed luminal narrowing and increased wall thickness. Erythrocyte sedimentation rate (ESR) and serum C-reactive protein (CRP) levels, which are indicators of inflammation as laboratory findings, were also high. Takayasu arteritis was diagnosed due to the present findings and differences in blood pressure values between arms.

Conclusion: Takayasu arteritis is characterized by prominent intimal proliferation in the arterial wall, granulomatous inflammation causing fibrosis development in the media and adventitia. Stenosis, occlusion and occasionally poststenotic dilatation and aneurysm may occur in the vasculature. ESH, CRP elevation, blood pressure difference between both arms can help to diagnose. Conventional angiography, CT angiography and MRA are used for diagnosis. CT angiography and MRA can clearly show vessel wall changes that are difficult to detect in conventional angiography. Corticosteroids are used in the treatment of the disease, but stenting in partial or fully occluded vessels and surgical by-pass surgeries are also performed.

Keywords: Takayasu arteritis, magnetic resonance imaging angiography

P - 064

EXTENSIVE ABSCESS FORMATION DUE TO MANDIBULAR OSTEOMYELITIS

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Abstract

Osteomyelitis is defined as an infection of medullary cavity which reaches to periosteum via Haversian canals. Although rare, mandibular ostemyelitis is more frequent than maxillary osteomyelitis and is usually seen with involvement of adjacent soft tissues. Here we present a case of a 33 year old man with extensive abscess formations involving masseter, pterygoid and temporal muscles secondary to mandibular osteomyelitis.

Keywords: Mandibula, osteomyelitis, MRI

P - 065

A RARE CASE OF PURPURA FULMINANS WITH PRECENSE OF BRAIN INVOLVEMENT

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Abstract

Objective: Purpura fulminans (PF) is a rare syndrome with intravascular coagulation and vascular collapse. Multiorgan can lead to insufficiency. MRI holds an important place in the diagnosis. We aimed to use and present MRI patients with PF.

Materials and Methods: An 8-year-old male patient was followed up with ichthyosis, Central Hypothyroidism, Glaucoma and Protein C, S, AT-III, common skin rashes, coagulation parameters in laboratory tests and general condition further deteriorated. MR images showed T1 hyperintense diffusion restriction area accompanied by left parietotemporal bleeds. T2AG had edema and moderate hattan shift.

Results: MRI is considered as the ideal examination in showing PF brain involvement. Differential diagnosis should be made from the mass lesions showing limited disease diffusion and the etiologies that may cause bleeding. Thus, the shape of the treatment can be given direction.

Conclusion: PF is acute onset and aggressive disease that is occured after infectious diseases and coagulation disorders; Intravascular hemorrhage, thrombosis and infarcts result in multisystem involvement resulting in ischemia, necrosis, loss of integrity in the skin. It can rarely be seen with haemorrhagic infarct in the brain as well as in our case. Brain involvement of the disease is non-specific and can interfere with many lesions. Although physiopathology is not fully understood, it is thought to play a role in multiple factor damage mechanisms. Extremity involvement is almost always a rule, but we can not reach clear literature information on brain involvement. Diagnosis is made in the clinic and laboratory but sometimes biopsy is needed for diagnosis. In the present case we were diagnosed by clinical biocompatibility as well as biopsy from the skin. In accordance with histopathology, hemorrhagic infarct areas in the brain parenchyma of the patient were also thought to develop due to purpura fulminans.

Keywords: Purpura fulminans, magnetic resonance imaging, brain

P - 066

INVERTED PAPILLOMA OF THE ANTERIOR CLINOID PROCESS

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Abstract

Inverted papilloma (IP) is a benign tumor that usually occurs the nasal cavity and paranasal sinuses. The clinical presentation of IP is nasal obstruction and headache as other nasal tumors. We aimed to discuss the MRI

features of a 48-year-old male patient who admitted to our clinic due to headache. Magnetic resonance imaging (MRI) of the brain with contrast showed mild expansile heterogeneous bone mass localized in the right anterior clinoid, extending laterally to the sphenoid sinus. The lesion was reported as a possible inverted papilloma. Anterior clinoid IP is the first case report in the English literature to our knowledge.

Keywords: Inverted papilloma, anterior clinoid process, schneiderian papilloma, MRI, anterior clinoid inverted papilloma

P - 067

PAROTIS ADENOCARCINOMA AND ITS METASTASIS, REPORT OF TWO CASES

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Abstract

Two cases with parotis adenocarcinoma were presented here, both masess were located in the left parotid gland, one was in the superficial, the other was in the deep glandular localization. In both cases, lots of noduler pulmonary and plevral metastasis were shown in the lungs. In the superficially located parotid malignancy; multiple thoracic and mediastinal LAP, massive pleural effusion and right pulmonary artery thrombus were present. Left iliac crest and right transverse process of L4 were also seen in this case. In the deep glandular one, Lots of Liver metastasis were shown. Both cases were eveluated by Torax CT-Head and neck MRI-Abdominal MRI.

Keywords: Parotis-Adeno-carcinoma-metastasis-MRI

P - 068

METASTATIC THYROID CARCINOMA, REPORT OF THREE CASES

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Abstract

Three metastatic papillary thyroid carcinomas were presented here, All three cases were evaluated by CT and MRI. In the first case, multiple pulmonary metastatic nodules and multiple liver masses with iliac bone invasion were shown. In the second case, multiple bone metastasis involving thoracolumbar vertebrae-both acetabulum-symphisis pubis-ischium-bilateral caput femoris etc. were seen. In the third case, multipl LAP in the mediastinum, retroperitoneum, mesentery and anterior-posterior servical chains with occipital bone invasion were revealed

Keywords: Thyroid-metastasis-carcinoma-MRI-CT

P - 069

BILATERAL CERVICAL ECTOPIC THYMUS

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Abstract

Objective: We aimed to present Ultrasonography (USG) and Magnetic Resonance Imaging (MRI) findings of ectopic thymus tissue which is a rare cause of neck masses. The differential diagnosis of neck masses should be considered especially in children.

Materials and Methods: An 8-month-old male patient was admitted to our hospital with complaints of swelling in the neck. In USG review; continuing bilaterally submandibular area to the inferior, hypoechoic according to thyroid parenchyma, with multiple echogenic linear seals, doppler examination with vascularity, lesions were observed that did not affect the surrounding tissues. Anterior mediastinal lesions were found to be echogenic and similar to thymus tissue. In MRI review the same intense lesions as the thymus tissue at the anterior mediastinum were detected at T1 and T2 weighted series.

Results: Detected lesions were evaluated as bilateral ectopic thymus tissue with USG and MRI findings. Monitoring of the patient was recommended.

Conclusion: Ectopic or aberrant thymus tissue can be seen anywhere from angulus mandibular to anterior mediastinum due to thymus descent during embryological development or involution anomaly of the thymopharyngeal canal. It may show a solid or cystic character. Congenital lesions, lymphadenopathies, benign and malignant tumors can often be confused with ectopic thymus. USG is considered as the first imaging method. Computed tomography (CT) is rarely used in infants and children because of ionizing radiation. Magnetic resonance imaging (MRI) is considered to be the most reliable imaging modality for ectopic thymus. It is stated that in cases with characteristic features after being diagnosed with imaging methots, histopathological diagnosis is not necessary and follow-up is sufficient.

Keywords: Cervical ectopic thymus, ultrasonography, magnetic resonance

P - 070

FETAL MAXILLOFACIAL TERATOMA MRI FINDINGS

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Abstract

Teratomas are germ celled tumors that may consist all of the three germ leaf. Fetal teratomas are very rare and they can be observed in 1/40.000 rate. Facial placed teratomas are very rare and they are approximately in 1-2% rate. Fetal teratomas are generally not providing any findings so that they can be determined as incidental. In general they have solid and cystic component and it must be kept in mind that they can be monitored as contoured mass rarely. Facial teratomas are important due to air way

obstruction and pressure on other structures, high morbidity and mortality rates related with poly-hydra-amnios, hydrops fetalis, preterm birth and rupture. In this proceeding fetal maxillofacial teratomas and magnetic resonance imaging (MRI) findings had been presented

Keywords: Fetal MRI, maxillofacial teratoma

P - 071

INSIDENTALLY FOUNDED ASYMPTOMATIC UNILATERAL SUBMANDIBULAR GLAND AGENESIS (CASE REPORT)

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Abstract

Introduction: Congenital absence of major salivary glands is a rare condition of unclear etiology. The first case was presented in 1885 by Gruber was a bilateral submandibular gland aplasia. Since then approximitely 41 cases have been reported in medical literature. Congenital salivary gland agenesis is usually bilateral and sometimes assotiated with other development anomalies of head and neck area. Clinical syndromes, such as lacrimo-auriculo-dento-digital syndrome and mandibulo-fascial-dyostosis (Treacher-collins syndrome) may also be seen. Unilateral submandibular gland agenesis is often asymptomatic and discovered incidentally through imaging. In sypmtomatic cases dry mouth, dental problems or difficulty in chewing and swallowing are seen.

Case Report: 31 years old young woman suffering from chronic neck pain applied to our hospital. Her physical examination was normal and she underwent to cervical MRI.

Discussion: In cervical MRI it was discovered that her left submandibulary gland was absent. Than she was underwent to neck US. In US it was observed that left submandibulary gland was absent and the other major salivary glands were normal both in size and echogenity. She had no specific symptoms such as dry mouth, dysphagia, dental problems or difficulty in chewing and swallowing.

Conclusion: Submandibular gland agenesis is a rare condition. Patient has this condition either asymptomatic or suffered dental problems or difficulty in swallowing by dry mounth. Asypmtomatic patient may diagnosed incidentally through imaging. When such a case is encountered, symptoms, findings and other possible additional deformities should be reevaluated and concervative therapy should be given if necessary.

Keywords: Submandibular Gland Agenesis

P - 072

MRI FINDINGS OF CONGENITAL CERVICAL TERATOMA; A CASE REPORT

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Abstract

Introduction: We aimed to present a case of congenital cervical teratoma with prenatal sonographic and postnatal neck MRI findings; that was detected as a cervical mass during prenatal follow-up and had an operation at postnatal period. Congenital teratomas are generally benign malformations. They are extremely rare in head and neck region. Despite the fact that the majority is benign, they require immediate surgical intervention due to the high mortality rate because of compressing of the airway. Today, the widespread use of ultrasonography in prenatal follow-up allows early detection of cervical teratomas. Thus, necessary precautions are taken in the perinatal period and it is possible to intervene at birth in elective conditions and early surgical intervention in postpartum period with multidisciplinary approach. In addition, preoperative planning for total surgical resection of teratomas is done by imaging methods (MRI-CT).

Case: A 26-years-old first gravida female reported at 36th week with antenatal ultrasound of the fetus showing right sided fetal neck mass of size 78 x 47 x 95 mm. The mass had predominantly solid character with cystic areas. Congenital cervical teratoma, neuroblastoma and sarcoma were considered in differential diagnosis. After the fetus was born by caesarean section ın the MRI examination; a minimal heterogeneously enhancing mass was observed, of size 90x50x83 mm, which is predominantly solid character with cystic areas. The mass filled right parapharyngeal area and extended exophytic to subcutaneous soft tissue. Oropharyngeal and laryngeal air column were slightly narrowed and vascular structures were deviated to posteromedial. The mass was excited in early neonatal period and teratoma was confirmed on histology.

Conclusion: The diagnosis of congenital cervical teratomas with prenatal US is important in terms of postnatal morbidity and mortality. MRI examination should be performed to show the relationship of the cervical mass with other neck regions and airway for appropriate surgical planning.

Keywords: Servical mass, teratom, prenatal us

P - 073

GIANT HEMANGIOMA ON THE TONGUE AND LIP

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Abstract

Objective: Hemangiomas are frequently seen in children with head and neck tumors. We aimed to present magnetic resonance imaging (MRI) findings of giant-sized hemangiomas involving the lips and the tongue.

Materials and Methods: A 9-year-old girl was admitted to our hospital with the complaint of red-purple colored swelling of her tongue and lower-upper lips, which was born. Magnetic resonance imaging (MRI) was performed after clinical examination. In MRI examination; hypointense on T1-weighted images and hyperintense on T2-weighted images, a lobulated contour mass lesion with millimetric signal fields was observed. It was seen that the lesion reached the oropharynx and narrowed the air column.

Results: According to MRI findings, the patient was diagnosed with hemangioma. She received beta blocker therapy and a 1-year follow-up showed minimal reduction in lesion size.

Conclusion: Hemangiomas are considered a benign proliferation of endothelial cells. They are frequently found in childhood age groups of head and neck tumors. Hemangioomas are rarely seen in the mouth. We aim to present it with MRI findings because of being a rare localization and being in large size.

Keywords: Giant hemangioma, tongue, lip

P - 074

A RARE CASE, POST-TRAUMATIC ARTERIOVENOUS FISTULA OF THE SCALP

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Abstract

Objective: In this case, we aim to present a rare case of posttraumatic arteriovenous fistula of the scalp.

Materials and Methods: A 21-year-old male patient admitted to our hospital due to noise on the left side of the head resulting from head trauma 3 months ago. When there was no pathology on the direct graphy, MRI examination was performed on the patients in terms of differential diagnosis.

Results: MRI examination revealed enlargement of the subcutaneous veins and tortious appearance in the left temporo parieto frontal region. Doppler USG examination was performed because clinical and MRI findings suggested an arteriovenous fistula.In the Doppler USG examination, fistula flow was observed in the tortuous vascular structures under the skin therefore an arteriovenous fistula was diagnosed.

Conclusion: An arteriovenous fistula (AVF) is an abnormal connection between an adjacent artery and vein. AVF of the scalp is relatively rare disease. The etiology of the AVF of the scalp is still controversial, however, it may be either of congenital or traumatic origin. There are two theories about pathogenesis of the traumatic AVFs. One is a disruption of the arterial wall and its vasa vasorum with endothelial proliferation to adjacent veins. The other is simultaneous lacerations of the artery and the accompanying vein result in a single fistula. An abnormal early signal enhancement in venous structures on MR angiography may help to find the point of arteriovenous fistulae. Time-resolved imaging sequences in MRI (e.g. TRICKS or TWIST) may be helpful.

Keywords: Arteriovenous, fistula, traumatic, scalp

P - 075

NASOLABIAL CYST: A CASE REPORT WITH CT AND MRI FINDINGS

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Abstract

Introduction: Nasolabial cyst also known as Klestadt's cyst is relatively rare soft tissue lesion of nasal alar region. It is a benign, slow-growing, non-odontogenic, primarily unilateral (%90), extraosseous soft tissue lesion located in the nasal alar region below the nasolabial fold. Common clinical features include slowly growing painless mass which results in obliteration of nasolabial sulcus, nasal vestibule and maxillary labial sulcus. Nasolabial cysts cannot be seen on conventional radiography if there are no associated bone changes. CT can show a well demarcated, rounded, homogeneous, low-density soft tissue lesion in the nasolabial region. MRI can show the characteristics of a liquid-containing cyst, with hypointense on the T1-weighted images and hyperintense on the T2-weighted images.

Case Report: 35 years old woman suffering from painless swelling on the right alar region and nasal obstruction applied to our haspital. On physical examination there is painless, fluctuant, mass lesion at the right nasal alar region. Patient was underwent to paranasal sinus CT and maxillofacial MRI.

Discussion: In MRI well shaped, extraosseous located, T1 hypointense T2 hyperintense cystic mass lesion at the right alar region causing partially obliteration of nasal vestibule was reported as nazolabial cyst. In paranasal CT there is no bony destruction. Than mass lesion was totally excised by operation. Lesion was reported as nasolabial cyst hystopathologically.

Conclusion: Nasolabial cyst should be considered in the differential diagnosis in patient who have a cystic mass in the nasal vestibuler area. Its clinical diagnosis is supported by its typical CT and MRI features.

Keywords: Nasolabial cyst

P - 076

WYBURN-MASON SYNDROME: A CASE REPORT

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Abstract

Introduction: Wyburn-Mason syndrome (WMS) is an extremely rare nonhereditary disorder and associated with multiple arteriovenous malformations (AVMs) containing the orbit, brain and face.

Case Report: We present the radiological features of a 33-year-old-woman with Wyburn-Mason syndrome, who suffered from decreased

visual acuity, headache and vomiting. In addition, she had a dark purple nodular mass located in medial canthus and upper eyelid. MRI examination demonstrated an arteriovenous malformation from the orbit to the deep gray matter along the optic nerve on the left side. Cavernous sinus was also affected. Large arteriovenous malformations were detected in the thalamus, basal ganglia and hypothalamus. Angiomas and enlarged vessels were seen in the skin, especially in the orbital medial part.

Discussion: The cause of Wyburn-Mason syndrome is unknown. AVMs may range from absence of the capillaries to the presence of large masses of widened and twisted blood vessels; mostly extend thru orbit into the midbrain. According to the sporadic brain AVMs, those are seen at a younger age. Orbit is the region that mostly affected. The complete form of WMS was defined as vascular malformations involving all 3 zones, while the partial form of WMS was defined as vascular malformations involving 2 zones only. Decreased visual acuity, proptosis, blepharoptosis, dilated conjunctival vessels and nerve paralysis may occur in some individuals with WMS and retinal racemose hemangioma can be seen with ophthalmic examination. Neurological symptoms associated with Wyburn-Mason syndrome include severe headaches, vomiting, seizures, paralysis of various cranial nerves and neck stiffness also spontaneous hemorrhaging of these AVMs can lead to the sudden onset of symptoms. In rare cases, the skin may be affected and angiomas may be seen.

Conclusion: In conclusion, WMS is associated with a wide spectrum of multiple vascular malformations involving frequently unilateral orbits, brain and/or face. This congenital malformation could be easily detected by MRI.

Keywords: Arteriovenous malformation, Orbit, Brain, MRI

P - 077

SINONASAL MUCOSAL MELANOMA

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Abstract

Malignant melanomas are rarely seen in the sinusoidal cavity; accounting for %0.3 of all mucosal malignant melanomas and 4% of head and neck tumors. It is commonly seen in man and women whom in advanced years. CT/RT is performed after surgery. Prognosis is very poor. Prognosis is determined by the size of the tumor, time of diagnosis and surgery. In our case, we presented a sinonasal malign melanoma case in a patient with unilateral nasal obstruction and edema.

Keywords: Malign melanoma, sinonasal, MRI

P - 078

PLASMACYTOMA OF THE PAROTID GLAND

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Abstract

Myeloma is a neoplasm of plasma cells that causes painful, bone-destructive lesions. It may present as a solitary lesion (plasmacytoma), or involve multiple sites (multiple myeloma). Extramedullary plasmocytoma is a relatively rare neoplasm. 90% of cases occur in the head and neck region. Soft tissue plasmacytomas of the head and neck tend to involve the nasal cavity or nasopharynx instead of oral cavity. Solitary plasmocytomas in the parotid gland are rarely seen. We aimed to present the imaging findings in this case.

Keywords: Plasmacytoma, parotid, MRI

P - 079

ACCESSORY PAROTID GLAND

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Abstract

23-year-old female with a known disease of spondiloartropathy presented to the romathology department of hospital with pain around her right ear radiating to her mandibula and neck. There was no other imaging findings to explain her pain. Neck magnetic resonance (MR) images showed accessory parotid gland presented on the lateral aspect of the masseter muscle, anterior and adjacent to the main parotid gland. Accessory parotid glands have the same ultrasound echotexture, computed tomography density and MR imaging signal as the main parotid glands. These have a typical appearence so that diferantiate from the other pathologies easily. Accessory parotid glands are a normal variant and represent ectopic salivary tissue separate from, but usually in close proximity to, the main parotid glands. Occasionally the accessory tissue is contiguous with the main glands.

Keywords: Accessory parotid gland, normal variant, magnetic resonance imaging

P - 081

SARCOIDOSIS PRESENTING AS TRIGEMINAL NEVRALGIA: A CASE REPORT

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Abstract

Introduction: Sarcoidosis most commonly presents as a systemic disorder. Infrequently, sarcoidosis can present as central nervous system disorder, with granulomas involving the leptomeninges and presenting with facial nerve weakness. Sarcoid of the trigeminal nerve is exceedingly rare.

Case Report: A 43-year-old woman presented with left-sided facial numbness and pain. Magnetic resonance imaging demonstrated thickening of left trigeminal nerve and upon contrast administration, enhancement of all its course. There was also abnormal enhancement of the meninges along the Meckels caves. The right trigeminal nerve course showed minimal signal change and mild enhancement. There was also mild enhancement of bilateral fascial nerves. We suspected of neurosarcoidosis with this MRI findings and asked the patient about other systemic symptoms. She declared that she has been in the follow up for pulmonary sarcoidosis in another hospital for 14 months.

Discussion: Imaging findings in neurosarcoid include dural thickening or mass, leptomeningeal involvement, enhancing and non-enhancing parenchymal lesions, cranial nerve involvement and spinal or nerve root enhancement. The most common cranial nerve deficit involves the facial and optic nerves. Trigeminal nerve involvement, as in this case, is very rare with only few cases described in literature. Although rare, sarcoid infiltration of the Gasserian ganglion must be considered in the differential diagnosis of contrast-enhancing and T2 hypointense lesions at Meckel's cave.

Conclusion: The diagnosis of neurosarcoidosis is always a challenge. For this reason definitive diagnosis requires the exclusion of other causes of neuropathy. Recognizing and correctly diagnosing neurosarcoid leads to proper treatment and decreased morbidity in patients.

Keywords: Sarcoidosis, cranial neuropathies, magnetic resonance imaging

P - 082

MR FINDINGS OF RETINAL DETACHMENT

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Abstract

Objective: Retinal detachment occurs when the neurosensory retinal layer and the retinal pigment epithelium are separated from each other. The liquid accumulates in the potential space created by separation. Retinal detachment may result in decreased visual function or complete loss of vision. In this case, MR images of retinal detachment in a 75 year old male patient were presented.

Materials and Methods: Brain imaging with a 1.5 T MRI device (Magnetom Avento, Siemens Healthcare) was performed to the patient who complained of headache and visual impairment.

Results: In brain MRI, in the right globe, in classical V-shaped T1 SE and T2 TSE-TRIM, where its apex in the optic nerve region, slightly hyperintense compared to vitreous fluid, and appearance compatible with retinal detachment was observed.

Conclusion: Retinal detachment occurs when the neurosensory retinal layer and retinal pigment epithelium are separated from each other. There are four major types of retinal detachment, tractional retinal detachment, exudative retinal detachment and combined retinal decollement. Exudative retinal decollement is less common than regmatoin retinal decollement and tractional retinal detachment, and is a detachment of the character with subretinal fluid accumulation without traction or tear. The causes of retinal detachment include diabetic retinopathy, trauma, high myopia, congenital cataract, surgery, congenital glaucoma, sickle cell disease, leukemia, systemic lupus erythematosus and metastasis. Retinal detachment may result in complete loss of vision in late diagnosis. MRI is a guiding for a diagnosis.

Keywords: Retinal detachment, MRI

P - 083

TWO CASES OF EPIGLOTTIC LARYNGEAL CYSTS WITH DIAGNOSTIC MR APPEARANCE

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Abstract

Epiglottic cysts are rarest laryngeal cysts reported in english literature since 19th century as several case series or separate case reports. They have different histogenetic origins diagnosed incidentally or causing diverse symptoms related to their location and size. Symptoms are generally hoarseness and dysphagia. Adult patients are mostly around sixth decade, though many pediatric cases has been reported. Two middle-aged male patients both with difficulty in swallowing and hoarseness were referred to our radiology department at different times . Before imaging , all patients were examined laryngoscopically. On otolaryngologists note lesions were described as well defined swellings with smooth mucosal surface bearing anterior vallecular wall and lingual face of epiglottis. In all scan series, signal intensities were identical in both patients with slight different location along with sagittal plane (first case in the midline second one from right vallecula extending to midline). Because of hypointensity on T2 weighted images lesions were almost isointense to air column. They had no mural solid component and had homogeneous T1 hyperintensity. No enhancement was apparent after routine iv gadolinium injection. There are several classifications of these cysts representing a mixed group of benign laryngeal lesions that can cause diagnostic and the rapeutic difficulties. Early diagnosis and surgical excision must be planned especially those with large dimensions. There are some case reports of stridor and/or respiratory distress in neonates and young infants due to their small airway.

Keywords: Laryngeal cyst, epiglottic cyst

P - 084

SINONASAL MENINGIOMA

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Abstract

Meningioma consists of approximately 20% of all intracranial neoplasms and are the second most common tumors of the central nervous system

following the gliomas. Meningiomas rarely (2% of all menengiomas) show extracranial localization, mostly in the head-neck, especially paranasal sinuses. Clinical and radiological features of these tumors are nonspecific and histopathological evaluations are required for diagnosis. We aimed to present the patient with sinonasal meningioma patient including his imaging and histopathology findings.

Keywords: Extracranial meningioma, MRI, sinonasal

P - 085

INCIDENTALLY DETERMINED PERIRENAL HEMANGIOMA IN ADULT FEMALE PATIENT: CASE REPORT

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Abstract

Hemangiomas are benign, vascular tumors and can be seen anywhere in the body. Renal hemangiomas are rare and most commonly localised in the medulla and renal pelvis. Perirenal hemangiomas that will be mentioned on this poster are much more rare lesions. A 62-year-old woman was examined with urinary ultrasonography due to a slight increase in creatinine values, and a solid lesion in the left kidney, which may be consistent with angiomyolyoma was discovered. MRI confirmed the diagnosis of angiomyolipoma in the left kidney. We also diagnosed a perirenal hemangioma at renal hilus, the size of 16x15 mm, observed as hyperintense at T2WI and hypointense in T1WI. The lesion shows peripheral-globular enhancement in arterial phase, and progressive increase in contrast enhancement in the following phases. Perirenal hemangiomas are rare, benign, mesenchymal vascular tumors. Small hemangiomas rarely have preoperative diagnosis because their findings are nonspecific. MR imaging shows homogeneous hypointense T1AG signals and hyperintense T2AG signals. Signaling loss in the lesion is primarily thought of as phlebolithia, and the existence of phlebolitia makes it easier to diagnose with CT. Contrast-enhanced series show contrast enhancement in the arterial phase and progressive contrast enhancement in the ongoing phases. However, findings are nonspecific and may mimic hypervascular tumors, transitional cell carcinoma, and renal cell carcinoma. The diagnosis of perirenal hemangiomas can be confirmed by histopathology or by long-term follow-up and characteristic imaging findings. In our patient, the defined lesion was diagnosed by the presence of classic imaging findings and stability in 6 year follow-up.

Keywords: Hemangiomas, perirenal hemangiomas

P - 086

FETAL MR IMAGING FINDINGS

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Abstract

Objective: Fetal imaging is the most commonly used and first choice method due to its low cost of ultrasonography (US). However in some cases US is insufficient. Fetal Magnetic Resonance Imaging (MRI) is applied in order to validate any abnormal condition we determined or we suspected and also execute distribution and anatomic relations of complex lesions and to determine additional abnormal conditions. Also in case of conditions like maternal obesity, oligo-anhydramnios or other inappropriate fetal positions that limits US causes MRI indication. In this proceeding there had been fetal MRI examinations and monitored pathologies had been submitted.

Materials and Methods: Patients has been taken into this survey between November 2012-February 2018 in which are examined by 1.5 TESLA MR device. There has been coronal, axial and sagittal T2 HASTE, axial and coronal T1 weighted images and axial diffusion weighted images taken.

Results: 89 patients have been evaluated. There was twin pregnancy in 2 patients. There has been intra-cranial examination conducted in 71 patients, spinal examination has been conducted in 6 patients, thorax has been conducted in 3 patients, maxillo-facial examination conducted in 2 patients and abdominal pathologies has been examined in 3 patients. There has been no pathology found in 12 patients. For detected pathologies ventriculomegaly (n=10), colpo-cephaly (n=16) had been monitored and corpus callosum agenesis (n=10), corpus callosum disgenesis (n=3) had been accompanied with them. Isolated corpus callosum agenesis (n=1), isolated unilateral lateral ventricular dilatation (n=12), lissencephalia (n=4), hydrocephalia (n=4) and secondary hydrocephalia has been monitored in 1 patient at MCA infarction. Dandy walker variance (n=5), dandy walker malformation (n=2) has been monitored. Agria (gyrus deficiency) -pachygria (n=4), meningocele (n=3), encephalocoele (1) has been observed. In one each patient maxilo-facial teratoma, lymphangioma in oral cavity, omphalocele, renal agenesia, renal hypoplasia, bronchopulmonary sequestration, cystic adenoid malformation, diaphragmatic hernia, sacral tail-gut cystic, alobar holoprosencephaly has been monitored.

Conclusion: MRI is more functional than US for distinguishing normal tissue from pathological tissue and it has higher contrast resolution properties and due to these superior properties it is started to be used widely in common and it must be used in case of requirement.

Keywords: Fetal MRI, ventriculomegaly, agenesis

P - 087

MAGNETIC RESONANCE IMAGING IN SCROTAL DISORDERS

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Abstract

Scrotal pain may result from testicular or extra-testicular pathologies. Early diagnosis and treatment of acute scrotal pathologies is important due to risk of infertility. Color Doppler ultrasound (CDU) is a recommended initial method to patients affected by scrotal pain. The dependence of the observer's experience and device quality has disadvantages of CDU and in some cases CDUmay be insufficient for diagnosis. Recently, the use of magnetic resonance imaging (MRI) has been increasing in patients with scrotal pathologies, due to more detailed anatomical resolu-

tion. Radiologists should be familiar with MRI findings of common scrotal and testicular disorders for accurate diagnosis. In this report, we aimed to present the MRI findings of patients with scrotal disorders.

Keywords: Scrotal imaging, testicular tumors, testicular torsion, scrotal pseudotumors, trauma, magnetic resonance imaging

P - 088

INFLAMMATORY MYOFIBROBLASTIC TUMOR OF LUNG: CT AND MRI FINDINGS

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Abstract

Inflammatory myofibroblastic tumor of the lung is a rare primary lung tumor previously called as "inflammatory pseudotumor". The tumor appears more common in young adult patients. Patients may be asymptomatic, or present with nonspesific symptoms like cough, hemoptysis, dyspnea or pleuritic pain. Because of atypical symptoms and signs, those patients initially misdiagnosed as lung cancer and other pulmonary diseases. Here we present CT and MRI findings of 18-year-old male patient with pathologically proven inflammatory myofibroblastic tumor.

Keywords: Inflammatory myofibroblastic tumor, inflammatory pseudotumor, lung, computed tomography, magnetic resonance imaging

P - 089

MALIGNANT SOLITARY FIBROUS TUMOR OF THE PLEURA

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Abstract

Objective: Solitary fibrous tumor of the pleura (SFTP) is a very rare neoplasm arising from the submesothelial mesenchymal layer of the pleura. SFTPs are commonly benign lesions with potential malignant transformation. Most of SFTPs are clinically asymptomatic and diagnosed incidentally in radiological imaging modalities. The clinical symptoms include cough, chest pain, dyspnea, finger clubbing and hypoglycemia. We aimed to present a case of a SFTP with malignant transformation.

Materials and Methods: A 67-year-old male patient admitted to our clinic with complaints of cough and dyspnea. A round mass lesion with sharp margins was detected posterior to the hearth, in chest X-ray. Computed tomography showed a huge lesion with the size of 10x12x13 cm in posterior inferior mediastinum. Possible differential diagnoses were neurogenic tumors, neoplasms originated from pleura and diaphragm. Magnetic resonance imaging revealed for detailed examination and showed a lesion heterogenous signal in both T1 and T2 weighted images. The lesion revealed significant enhancement after intravenous contrast material administration. The patient underwent thoracotomy and surgical excision was applied. Histology revealed a fibrous tumor with malignant features originating from the pleura.

Conclusion: SFTPs are commonly benign and rare neoplasms. There is a risk for recurrence and malignant transformation. Magnetic resonance imaging reveals adjunctive details for tumor margins and invasion to adjacent organs.

Keywords: MRI, pleura, tumor

P - 090

MRI APPEARANCE OF TESTICULAR ADRENAL REST TUMOR

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Abstract

Testicular adrenal rest tumor (TART) is a rare primary testicular tumor and described as an important complication of congenital adrenal hyperplasia (CAH). Patients who were diagnosed as CAH should be followed-up for testicular imaging because TART has risk of testicular damage and infertility. TART can mimic other primary testicular tumors like germ cell tumors. Here we present MRI appearance of 23-year-old male patient with TART, formerly diagnosed as CAH.

Keywords: Testicular adrenal rest tumor, testicular, congenital adrenal hyperplasia, magnetic resonance.

P - 091

PILOMATRIXOMA LOCATED ON UPPER EXTREMITY

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Abstract

Pilomatrixoma is a rare, benign, limited, calcifying epithelial neoplasm that arises from the hair pluripotent precursor matrix cells. It is usually seen as an asymptomatic hard mass on the head and neck and on the upper extremity, skin or under the skin. Multiple occurrences often have family history, and are associated with some syndromes. The treatment is simple excision. The definitive diagnosis is performed after histopathological evaluation. In this case report, we aimed to increase the knowledge of the physicians about pilomatrixoma and to consider the differential diagnosis of pilomatrixoma among skin neoplasms.

Keywords: Pilomatrixoma, skin, tumor, cyst

P - 092

A RARE CASE: CASTLEMAN DISEASE PRESENTING IN THE LUNG PARENCHYMA

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Abstract

Objective: Castleman Disease (CD) is a rare lymphoproliferative disorder of unknown cause.Mediastinum is the most commonsite of localized CD.Extranodal involvement is rare. Here, we report the case of a patient presenting with the hyalin vascular variant of the disease presenting as a solitary pulmonary mass, with CT and MR finding.

Materials and Methods: 20-year-old woman presented with nonspecifik caugh. CT revealed a solid hyperattenuating, well-circumscribed right lung lower lob. On MRI, the lung mass was homogeneously iso-hyperintense to muscle on T1-T2WI.Postcontrast imaging revealed avid enhancement of the lung mass. After performing open lung excisional biopsy, pathological examination revealed hyalin-vascular type Castleman Disease.

Discussion: CD is one of the more common causes of nonneoplastic lymphadenopathy.CD typically affects mediastinal lymph nodes, it can also affect intra-abdominal lymph nodes, as well as lymph nodes located in the axillary, cervical, pelvis. Extranodal involvement may occur in lung, larynx, parotis, pancreas, meninx and muscles, in only 5% of cases.CD may be classified morphologically as localized and multicentric, histologically Hyalin Vascular-type, Plasma Cell-type and mixedtype. The most common type is localized hyalin-vascular-type (%90). Majority of multicentric-CD is associated with an immunodeficiency state and patients also have an increased risk for development of Kaposi sarcoma and lymphoma. Homogenous high enhancement is typically observed in Hyalin-Vascular-type CD due to the abundance of blood vessels.

Conclusion: Castleman disease can mimic many disease according to the involved region. As in our case, if lung is involved, it can mimic adenocancer. CD should be kept in mind in differantial diagnosis of solitary lung masses, in the case of well circumscribed, especially avid enhaenced lesions.

Keywords: Lung castleman disease, MRI

P - 093

PARASPINAL CYSTIC DEGENERATING MASSES –ATYPICAL PRESENTATION OF EXTRAMEDULLARY HEMATOPOIESIS

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Abstract

EH (Extramedullary hematopoiesis) is the proliferation of hematopoietic precursor cells outside of bone marrow. In adults it is compensatory mechanism, that is always associated with insufficient blood formation. Among the various atypical presentations paraspinal involvement deserves special attention due to irreversible neurologic damage. Thalassaemia is a hereditary haemolytic anaemia caused by deficiency of globulin chains. In this report, we present 34 year-old patient with Talasemia intermedia and typical MRI findings of paraspinal EH. Bilateral multipl large, lobulated ,smooth-margined paraspinal masses along the thoracic vertebra were demonstrated in obtained MRI. Massescaused widening of the neural foramens and thickening of the adjacent posterior rib heads. There were not any sign of neural compression nor any bone invasion. Lesions were composed of T1 and T2 hypointense homogenous enhanced solid components and cystic degeneration areas. Also, there were a decrease in the bone marrow intensity, a decrease in the T2 star value due to significant iron accumulation in liver and hepatosplenomegaly. MRI can clearly show anatomical details and extent of the masses within the spinal canal. In differential diagnosis NF1 and other neurologic tumors must be questioned. During atypic soliter presentation biopsy can be done to conform diagnosis. In our case differential diagnosis was easy due to characteristic topography ,history and past MRI series.

Keywords: Extramedullary hematopoiesis, paraspinal mass, thalassaemia intermedia

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P - 094

TUBOOVARIAN ABSCESS ARTER DELIVERY: CASE REPORT

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Abstract

A 32-years-old woman presented to the obstetrıc clinic with history of low abdomen pain after just delivery. She had fever and unremarkable abdominal signs on physical examination. She had no complaint during the pregnancy. Pelvic magnetic resonance imaging (MRI) revealed a cystic lesion at the right adnexal region that was hypointense on T1 weighted (T1W) images and hyperintense on T2 weighted (T2W) images. After gadolinium administration, there was peripheral enhancement of the cystic lesion. Magnetic resonance imaging also showed multiple tubal ectasia Based on the above findings, the patient was diagnosed with tuboovarian abscess. At the surgery its revealed tuboovarian abscess with massive purulent contamination of the abdominal cavity. Tuboovarian abscess can occur at any during the any time periods. Tuboovarian abscess during pregnancy or immediately after birth are rare but it has been previously reported. According to an early literature, delayed diagnosis and intervention may cause maternal death or fetal loss but in our case it's not complaint during the pregnancy. We report the case of a patient with tuboovarian abscess after just delivery.

Keywords: Tuboovarian abscess, delivery, pregnancy

P - 095

BRONCHIAL ATRESIA MIMICKING PULMONARY ARTERY ANEURYSM

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Abstract

Objective: Bronchial atresia is a developmental anomaly characterised by focal obliteration of the proximal segment of a bronchus associated with hyperinflation of the distal lung. It is usually asymptomatic and may be found incidentally. On imaging, it commonly presents as a proximal focal tubular shaped opacity radiating from the hilum. In the differential diagnosis, pulmonary sequestration, bronchogenic cyst, endobronchial carcinoid tumor, pulmonary artery aneurysm, and allergic bronchopulmonary aspergillosis should be considered. We aimed to evaluate the radiological findings of a 56-year-old man with an opacity in the lung.

Materials and Methods: A 56-year-old man was admitted to our instution with weakness, weight loss, and back pain. Contrast-enhanced thorax computed tomography (CT), and magnetic resonance imaging (MRI) were performed.

Results: Our case has a history of hyperlipidemia, hypertension, diabetes mellitus, and coronary artery disease. Twenty years ago, he had an acute ischemic stroke improved completely. Twenty-five years ago, he had a lung disease improved with treatment that was not clearly diagnosed. He has been complaining from weakness, weight loss, and back pain for 2 months. Chest X-ray revealed a tubular opacity in the left upper zone. Pulmonary artery aneurysm, tumor, and bronchial atresia were considered as a preliminary diagnosis. On contrast-enhanced CT, a lobulated lesion in the left upper lobe without marked enhancement was demonstrated. MR image showed the non-enhancing tubular lesion with a finger-in-glove appearance. The diagnosis of a bronchial atresia was made. In the follow-up, control CT after 1 year revealed the lesion without any change.

Keywords: Bronchial atresia, computed tomography, magnetic resonance imaging, pulmonary artery aneurysm

P - 096

CONGENITAL MUSCULAR DYSTROPHY FETAL MRI FINDINGS

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Abstract

Congenital muscular dystrophy (CMD), early onset hypotonia, weakness, myopathic findings and muscle in electromyography hereditary disease with frequent dystrophic changes in biopsy muscle disease group. The incidence in the society is estimated to be about 1/100,000. Early diagnosis is very important for the management of the disease. Fetal MRI examination with pathologic changes in fetal intracranial structures should be performed in US. Brain structures in fetal MRI are examined in more detail, and MRI is superior to US in terms of maternal obesity, oligo-anhydramnios, or inappropriate fetal positions, and US in distinguishing normal tissue from pathologic tissue, necessity due to its superior features such as higher contrast resolution. In this proceeding there had been fetal MRI examinations and monitored pathologies had been submitted.

Keywords: Fetal MRI, congenital muscular dystrophy

P - 097

A RARE CASE OF THYMUS GLAND: TYMOLIPOMA

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Abstract

Thymolipomas are rare anterior mediastineal benign tumors that can occur at any age. Tumors are usually asymptomatic which grow slowly causing mass effect to adjacent thoracic structures. These fat containing slow- growing lesions usually give benign appearance which can enlarge in years and present with cough, dyspnea, hemoptysis, chest pain, hoarseness or paroxysmal atrial tachycardia. Thymomas can also arise from such lesions so close monitoring is necessary. Thymoma, thymic variation, hyperplasia of mediastinal fat, and neoplasms should be differentiated. Aplastic anemia, Graves, lymphoma and leukemia are described in association with thymolipoma. We present the case of 53 year-old man who admitted to the Respiratory Disease Department with upper respiratory tract infection. Computed tomography demonstrated heterogeneous soft tissue mass with areas of extensive fat. Magnetic resonance imaging demonstrated anterior mediastineal mass containing multiple areas of high signal in both T1 and T2 sequences with homogeneous enhancement. The patient was referred for surgical treatment and histopathology confirmed the diagnosis of thymolipoma.

Keywords: Tymolipoma, mediastinal mass, magnetic resonance

P - 098

EXTRAMEDULLARY-INTRADURAL HEMANGIOMA

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Abstract

A 48-year-old male patient; contrast-enhanced thoracic MRI images were obtained upon mass lesion detection on the spinal cord in unenhanced thoracic MRI images taken for back pain. Made in review; Mass , which is extramedullary-intradural and 7x1 cm measured, was observed in the posterior of spinal cord.In addition,the lesion is hypointence in T1A images compared with spinal cord and hyperintence in T2A images compared with spinal cord. Spinal cord level is between T4-T7 spinal level.This mass is recognizable with diffuse contrast material after contrast injection. The lesion was bilaterally located at C5-C6 level and right neural foramene at C6-7 level. It was observed that it was anteriorly marked. In addition, linear enhancement was observed, which is showed to be compatible with the superior and inferior dural tail of the lesion. Meningioma was first considered in the differential diagnosis of lesions with present findings. However, other intradural lesions (schwannomas, metastases ...) were not ruled out. Histopathologic examination of the mass after surgery showed that the lesion was compatible with hemangioma.

Keywords: Intradural-extramedullary, hemangioma

P - 099

PRECOCCYGEAL EPIDERMOID CYST PRESENTING AS TENESMUS

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Abstract

A 23-year-old woman was admitted to our department with low back pain, tenesmus and functional constipation for a long time. MRI revealed a well-defined, unilocular, thin-walled cystic lesion in the retrorectal precoccygeal space. The lesion had homogeneous hyperintense signal characteristics on T2-weighted images . The cystic lesion also showed diffusion restriction with corresponding low intensity on apparent diffusion coefficient (ADC) map. Thus, the lesion was considered as epidermoid cyst accompanied by radiological features. The patient underwent surgical excision and the epidermoid cyst was corrected by histopathologically.

Keywords: Precoccygeal epidermoid cyst, tenesmus, MRI

P - 0100

CALVARIAL MASS CONFUSED WITH TRICHILEMMAL CYST: HCC METASTASIS

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Abstract

Introduction: The hepatocellular cancer (HCC) calvarial metastasis is a rare condition that commonly present cranial swelling. Therefore, calvarial swelling may confuse with frequently lesions of the scalp. Our patient was operated as trichilemmal cyst. But, intracranial extension was seen in operation. Calvarial metastasis of HCC was observed by examination of the patient.

The hepatocellular cancer is the third most frequent tumor among cancer types. In addition, liver metastasis is the most frequent metastasis of hepatocellular cancer. The most frequent metastasizes is observed in the liver and lymph nodes among extrahepatic locations. The skeletal system involvement of HCC is limited. The skull metastasis of hepatocellular cancer has been described rarely. Our case is demonstrated the calvarial involvement which is rare involvement of HCC. The cranial lesion has been presented such as trichilemmal cyst different from described cases in published data. There is no another case reported with first presentation form like ours and diagnosed with HCC in similar way to our case in published data.

Case Report: 66-year-old male patient was admitted to neurosurgery clinic with complaint of cranial mass. The complaint of cranial swelling was noted in history of patient. Also patient was admitted to another hospital with these complaints. Thereafter, he was diagnosed with the trichilemmal cyst in that center and operation decision has taken by clinicians. Clinical operation has been terminated due to intracranial extent of lesions in plastic surgery department. The patient was referred to our hospital. Craniography was performed on patient. The bone defect was presented at the vertex level in graph. Cranial CT and MRI were performed on patient. A bone lesion was observed at vertex level with intracranial and extracranial extension. The lesion was well-circumscribed and destructed the bone. Patient was operated by neurosurgeon. HCC metastasis was diagnosed histopathologically after the operation. In addition, CT was performed on the patient. HCC carcinoma was observed in liver at the CT.

Discussion: Common primary neoplasms of metastatic cranial tumors are lung cancer, breast cancer, melanoma and colorectal cancer. Calvarial metastasis is reported between 0.4% to 1.6% in patients with HCC. HCCs calvarial metastasis has been described rarely in the literature. 3 type pattern of growth were observed in involvement calvarial. The first is intracranial, second is extracranial and the third is both intracranial and extracranial growth pattern. The lesion presentation shows differences according to the growth pattern. It has been described in the literature, especially the masses which represent an intracranial growth pattern confused with hemorrhage. There is the both intracranial and extracranial growth pattern in our case. Extracranial growth pattern may confuse with frequently lesions of the scalp. Also, trichilemmal cysts are frequently observed in the scalp. This cyst may be calcification or remain in solitary structure. In this case, it may confuse with all solitary lesions of the head. The treatment of the trichilemmal cyst is surgical removal. Therefore, the imaging is important before interventional procedure in solitary lesions of the head. Imaging detects the actual size and the extensions of the lesion. Also it shows that the lesions originated from skin or bone. Therefore, possible mistakes would be observing in diagnosis without utilization of the imaging methods. Consequently, the HCC, rare metastatic involvement of head, may be confused with other solitary lesions. Therefore, utilization of the imaging methods is important for accurate diagnosis and therapy.

Keywords: Calvarial mass, trichilemmal cyst, hcc metastasis

P - 0101

RARE AND SERIOUS COMPLICATIONS OF SINUSITIS IN PEDIATRIC PATIENTS: EPIDURAL ABCESS

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Abstract

Introduction: Intracranial abscess has serious mortality. Therefore, early diagnosis and treatment is important. Intracranial abscess is rarely seen as a complication of sinusitis. Specially in children it has been reported rarely. Fever and headache can indicate complications in children. Intracranial abscesses are rarely reported in children and emerge due to bacterial

infections. Intracranial abscesses may observe as complication of sinusitis. In addition, they were associated with high mortality and morbidity. Therefore, recognition of them is important. We have tried to show the rare and serious complication of isolated sinusitis in patient with headache and fever presented to the emergency department.

Case Report: 13-year-old male patient applied to the pediatric clinic with headache and fever. Patients had occasionally complained of headaches for a long time. Recently, the complaints such as fatigue and fever has emerged and headache became constant in patient. A significant pathology was not observed in patients physical examination. The slightly increased leukocytosis was reported in laboratory results. Patient was scanned cranial computerized tomography. The subdural fluid collection was observed at the right frontal level in cranial CT. The cranial MRI was performed on the patient. There was collection restricted diffusion at MRI in the right frontal. Appearance was evaluated as abscess. Moreover, there was sinusitis in the right maxillary sinus and ethmoidal cells. Also the bone defect was not detected at this level. The antibiotherapy was started on patient. The patient was operated for epidural abscess in neurosurgery service. Subdural abscess was drained. The symptoms of the patient were decreased after the treatment.

Discussion: Epidural abscess is an important clinical entity. It may occur with hematogenous spread or direct contact. Direct contact is often observing as a complication of sinusitis. The intracranial transition has occurred with spread on lamina paprecea or direct contact with after post- traumatic fracture. The meningitis, cavernous sinus thrombosis, potts puffy tumor and intracranial abscesses are located between intracranial complications of sinusitis. Patients are generally presented to the clinic with triad of headache, fever and focal deficit for epidural abscess. The fever and headache were observed but focal deficit was undeveloped in our case. Therefore, early diagnosis and treatment are important to protect from focal deficits and complications in these patients. The most frequently isolated pathogens are Streptococcus, Hemophilus influenza and Staphylococcus. Treatment of antibiotic and drainage may also be applied at epidural abscess. The treatment process is long and difficult. The high mortality and morbidity are observed in patients with untreated timely. Furthermore, the treatment of sinusitis have an important role in the process. Especially, early diagnosis and treatment of sinusitis protect from complications in patients with headaches.

Conclusion: Epidural abscess is uncommon but serious complication of sinusitis. Therefore, the clinicians sufficiently should pay attention to the presence of complications as much as diagnosis and treatment of sinusitis in patients with headaches.

Keywords: Sinusitis in pediatric patients, epidural abcess

P - 0102

SIGN OF INTRACRANIAL EXTENSION IN SOLITARY PLASMACYTOMA

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Abstract

Solitary plasmacytoma usually gives systemic findings. Particularly the involvement of the head without systemic symptoms is uncommon. If cranial involvement occurs, the patient usually comes with a complaint of calvarial swelling. Development of headache complaints in the patient may indicate intracranial extension.

Keywords: Solitary plasmacytoma, intracranial extension, headache

P - 0103

A RARE COMPLICATION OF CRANIOCERVICAL TRAUMA AND THE IMPORTANCE OF THE MAGNETIC RESONANCE IMAGING

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Abstract

Craniocervical injury generally occurs secondary to trauma. Imaging findings are important for diagnosis. Because these patients may be unconscious. Pseudomeningocele appearance is important for diagnosis. Accompanying complications such as epidural hematoma can occur with craniocervical magnetic resonance imaging (MRI). MRI may be guided for guiding therapy and diagnosis.

Keywords: Craniocervical trauma, magnetic resonance imaging, pseudomeningocele

P - 0104

A RARE COMPLICATION AND PRESENTATION OF THE NEUROFIBROMATOSIS TYPE -1

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Abstract

Neurofibromatosis is a genetic disease. Characteristic features of the neurofibromatosis include Lisch nodules, café au lait spots, and neurofibromas. It can also cause musculoskeletal abnormalities. Atlantoaxial dislocation associated with neuro fibromatosis is also very rare. Atlantoaxial dislocation often leads to neurological symptoms. In our case, lesion observed at oropharyngeal area. We reported a unique case in which there was presence of dyspnea and progressive quadriparesis in the setting of neurofibromatosis and atlantoaxial dislocation.

Keywords: Neurofibromatosis Type -1, atlantoaxial dislocation, dyspnea

P - 0105

HYDATIDOSIS WITH MULTIPLE ORGAN INVOLVEMENT

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Abstract

A 79 year-old woman was admitted to our department with intermittent non-specific pains. MRI revealed a well-defined, unilocular, thin-walled multiple cystic lesion in the spleen, liver and cardiac. The lesions had homogeneous hyperintense signal characteristics with the hypointense rim on T2-weighted images. Some cystic lesions had germinative membranes. Thus, the lesions were considered as hydatid cyst accompanied by radiological features. Hydatid cyst was corrected by histopathologically and supported by enzyme-linked immunosorbent assay (ELISA) for echinococcosis. The patient was treated with albendazole at a dose of 15 mg/kg/day.

Keywords: Hydatidosis, ELISA, MRI

P - 0106

GRANULOMATOUS INFECTION OF THE FACET JOINT

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Abstract

A 17 year-old male presented to the pediatric clinic with complaints of lumbar pain and high fever. There was no history of trauma and surgery. There was history of tuberculosis. The spinal magnetic resonance (MR) imaging was performed. Magnetic resonance imaging (MRI) showed lumbar 4/5 vertebrae facet joint heterogeneous hypointense on T1 weighted (T1W), heterogeneous hyperintense T2-weighted (T2W) images and it was heterogeneously enhanced after contrast administration. Laboratory findings showed increased inflammation markers. Lesion was identified as a granulomatous inflammation via pathological examination. According to radiological and laboratory findings, the lesions were evaluated primarily tuberculosis involvement of the facet joint. Septic arthritis is most prevalently secondary to a bacterial infection with less common, more slowly progressive infections resulting from fungal or mycobacterial causes. Septic arthritis is most prevalently seen in larger peripheral joints, however rarely reported in facet joints.

Keywords: Granulomatous Infection, spinal magnetic resonance, facet joint

P - 0107

A RARE NONOBSTRUCTIVE MASS OF THE URETER: NON-HODGKIN'S LYMPHOMA

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Abstract

A 69-year-old man presented to hematology clinic complaining of fever and abdominal pain. Patient had non-Hodgkins lymphoma history. Abdominal computed tomography (CT) and Magnetic resonance imaging (MRI) were performed. MRI imagings revealed a massive increase in the ureteral wall thickness. On the diffusion-weighted imaging, the mass has relatively homogeneous increased signal intensity. The apparent diffusion coefficient (ADC) map reveals decreased ADC. CT imagings showed that the ureter was completely involvement. Non-Hodgkin lymphoma arising primarily from the ureteral wall is exceedingly uncommon. Also, obstruction was not observed against the massive involvement. The absence of obstruction and restriction of diffusion is typical for lymphoma.

Keywords: Nonobstructive mass of the ureter, non-hodgkins lymphoma, magnetic resonance imaging

P - 0109

A RARE CAUSE OF EPISODIC PARESTHESIA: SPINAL CAVERNOMA

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Abstract

A 57-year-old male patient was admitted to our neurosurgery department with episodic numbness in both lower extremities during the past 6 months. Neurological examination and cranial magnetic resonance imaging were normal. Spinal magnetic resonance imaging was performed. Magnetic resonance images showed intramedullary cavernous angiomas (CA) at cervical spinal cord. Cavernous angiomas are vascular malformations that occur throughout the central nervous system. Cavernous angiomas most commonly occur in the cerebral hemispheres, but spinal CA are rare. Spinal CA can be intramedullary, intradural extramedullary, or extradural lesions. Intradural spinal CA are uncommon. Spinal CA occur mostly in the thoracic spine.

The common symptoms of spinal CA include paraesthesia, pain, and weakness. The mechanism of episodic deterioration in these patients is most likely episodic hemorrhage into the spinal cord parenchyma. A complete surgical resection is the goal of the treatment for spinal CA.

Keywords: Episodic paresthesia, spinal cavernoma, MRI finding

P - 0110

A RARE LOCALIZATION: PRIMARY PLEOMORPHIC UNDIFFERENTIATED SARCOMA

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Abstract

A 51-year-old man with a 1 year history of back pain presented to our neurosurgery clinic. Lumber magnetic resonance imaging (MRI) revealed a mass hypointense T1-weighted image and hyperintense T2-weighted image at the L1–T12 vertebrae and paravertebral tissue. The mass was also spread into the retroperitoneal space. After injection of a contrast agent, magnetic resonance imaging showed a heterogeneous enhancement in mass. The tumor was incompletely excised. It was diagnosed as undifferentiated pleomorphic sarcoma. Undifferentiated pleomorphic sarcomas are very rare but have been reported in the literature.

Keywords: Primary pleomorphic undifferentiated sarcoma, vertebrae, MRI findings

P - 0111

SEVERE TOXIC LEUKOENCEPHALOPATHY ASSOCIATED WITH TACROLIMUS AFTER LIVING DONOR LIVER TRANSPLANTATION

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Abstract

A 32-year-old woman underwent living donor liver transplantation from her mother in April 2013 and received tacrolimus therapy. About 8 weeks after starting immunosuppressive therapy, the patient presented to our emergency radiology department with acute onset of aphasia and headache. No other neurological deficits were noted. Magnetic resonance imaging (MRI) during the episode showed significant diffusion restriction, with reduced ADC values in the bilaterally frontal, parietal and occipital white matter, internal capsule, middle cerebellar peduncle, corpus callosum. Tacrolimus blood level was within therapeutic range: 16.9 ng/mL (normal values 5–20 ng/mL). The tacrolimus dosage was decreased and stopped; it was replaced by cyclosporine A. After a decrease in tacrolimus dosage, the lesions gradually disappeared. The radiologic findings of the patient were consistent with the tacrolimus neurotoxicity. Clinical recovery was complete within 3 months.

Keywords: Tacrolimus, liver transplantation, acute toxic leukoencephalopathy

P - 0112

UTERINE ABSCESS AS A COMPLICATION OF ACUTE APPENDICITIS

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Abstract

Acute appendicitis is a common cause of abdominal pain that requires surgical intervention. Main complications of acute appendicitis are perforation, abscess formation, peritonitis, bowel obstruction, septic seeding of mesenteric vessels and gangrenous appendicitis, although in some rare occasions complications like appendico-vesical, appendico-cutaneous or appendico-uterine fistula formations may also occur. Here we present a case of a 83-year-old woman who was found to have uterine abscess due to acute appendicitis.

Keywords: Acute appendicitis, uterus, appendicitis complications

P - 0113

AN ATYPIC MELANOMA METASTASIS

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Abstract

A 64 year old men with previous diagnosis of malignant melanoma, was referred to CT and MRI unit for suspicion of metastasis, in the Torax CT metastatic pulmonary nodules were observed. In Abdominal CT and MRI, Metastatic masses were shown in liver and spleen; Bilobar multiple metastasis were visualized in liver, parencymal and subcapsular multiple spleen metastasis were seen. In the Brain MRI, multipl cerebellar and cerebral metastasis were also observed mainly as Hyperintensities in T1W images.

Keywords: Melanoma-metastasis-MRI-ATYPIC

P - 0114

ERDHEIM-CHESTER DISEASE (ECD); PRESENTATION OF A CASE WITH MULTISYSTEMIC INVOLVEMENT USING MULTIMODALITY IMAGING

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Abstract

ECD is a very rare multisystemic non-Langerhans-cell-histiocytosis. The disease has a broad spectrum of organ manifestations. Bones are the most common sites of involvement and scintigraphic appearance is pathognomonic. However nearly every organ may be involved. Cardiac disease commonly presents as right atrial pseudotumor. Retroperitoneal

disease involves the perirenal fat and kidneys. Herein, we present a case with bone, cardiovascular, retroperitoneal and renal involvement. An 81y old male patient was referred to radiology for Cardiac MRI for further investigation of a suspicious mass on echocardiography. MRI showed right atrial pseudomass with mediastinal/atrioventricular groove extension and superior vena cava (SVC) encasement. CT demonstrated additional distal right coronary artery encasement and bilateral perirenal-renal infiltrations. Skeletal survey revealed patchy sclerotic appendicular skeleton lesions which showed high tracer uptake on bone scintgraphy. FDG PET/CT revealed moderately increased metabolic activity of the right atrial/mediastinal lesion. Non-Langerhans-cell histiocytosis was diagnosed after CT-guided core biopsy of the retroperitoneal lesion.

Keywords: Erdheim-Chester disease (ECD), multimodality imaging, multisystemic involvement, Non-Langerhans-cell histiocytosis

P - 0115

PIRIFORMIS SYNDROME MIMICKING LOMBER DISC HERNIA

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Abstract

The piriformis muscle originates from the anterior of sacral 2 and 4 vertebrae and from the sacroiliac joint capsule. The PS is a rare entrapment neuropathy in which the sciatic nerve is compromised by an abnormal piriformis muscle. Several variations in the anatomical relationship of the sciatic nerve and the piriformis muscle may be seen. Hypertrophy, inflammation, traumatic injury, anatomical variations of the piriformis muscle and/or the sciatic nerve, and myositis ossificans can cause PS. Approximately 6% of lower back pain and sciatica cases seen in a general practice may be caused by PS. However, this ratio may be higher because it's similarity with radicüler pain. The rarity, nonspecific clinical symptoms, and absence of definite diagnostic tests may cause the diagnosis of piriformis syndrome to be missed or delayed. MRI can be used to make a correct diagnosis, to specify anatomic relationships for preoperative planning, and to differentiate piriformis syndrome from the more common causes of lower back pain and sciatic. In this case report, the patient presented to us as lumbar disc hernie who has with a complaint of pain spreading from hip to lower back and to left foot was evaluated by MRI. On MRI images it was seen that piriformis syndrome due to inflammation in the left piriformis muscle.

Keywords: Piriformis syndrome, sciatic nerve, magnetic resonance imaging

P - 0116

PULMONARY SEQUESTRATION: INTRAUTERIN ULTRASONOGRAPHY AND MRI FINDINGS

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Abstract

Pulmonary sequestration, also called accessory lung, refers to the aberrant formation of segmental lung tissue that has no connection with the bronchial tree or pulmonary arteries. The estimated incidence is 0,1%. There are two types:intralobar sequestration (ILS) and extralobar sequestration (ELS). ELS more commonly presents in newborns as respiratory distress, cyanosis, or infection, whereas ILS presents in late childhood or adolescence with recurrent pulmonary infections. Overall, sequestration preferentially affects the lower lobes. 60% of intralobar sequestrations affect the left lower lobe, and 40% the right lower lobe. Extralobar sequestrations almost always affect the left lower lobe, however, ~10% of extralobar sequestrations can be subdiaphragmatic. In this case report, ultrasonography and MRI findings of the pulmonary sequestration in the lower lobe of the left lung during 26 week intrauterine pregnancy examination was emphasized.

Keywords: Pulmonary sequestration, fetal MRI, ultrasonography

P - 0117

PARASITIC LEIOMYOMA IN THE LUNG

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Abstract

Thoracic CT of 78-years-old female patient complaining of dyspnea and weight loss revealed well defined multiple enhancing mass lesions together with infected bronchiectasis in the both lung parenchyma. For characterization of masses MRI was performed. Leiomyoma was diagnosed on biopsy. Myomectomy and coronary artery by-pass surgery were present on history of the patient. Uterine leiomyomas are one of the most common tumors in women. Parasitic leiomyoma is an uncommon type of uterine leiomyoma. It may present with a wide spectrum of symptoms. A parasitic leiomyoma that had blood supplies from the common iliac vessels was diagnosed during the operation. Total abdominal hysterectomy and mass removal were performed without complication. Even though a parasitic leiomyoma is uncommon, it should be included in the differential diagnosis of pelvic and lung mass.

Keywords: Parasitic leiomyoma, lung mass, hysterectomy

P - 0118

A RARE LOCATION OF HYDATID CYST

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Abstract

Hydatid cyst is an endemic parasitic disease seen in people who are engaged in agriculture and animal husbandry. It is most commonly localized in the liver and lungs. In this case report, we aimed to identify MRI findings of a rare localization of cyst hydatid. A 25-year-old woman with a complaint of swelling is seen in the left posterior cervical region with a hydatid cyst located at C2-4 level in the side of the left arch of the vertebra.

Keywords: Hydatid cyst, neck, magnetic resonance imaging

P - 0119

COR TRIATRIATUM SINISTER WITH PRIMUM ATRIAL SEPTAL DEFECT

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Abstract

Cor triatriatum sinister is a comperatively rare congenital malformation in which the left atrium is divided by a fibromuscular membrane into two seperated chambers. The embryologic origin of this congenital defect is still debated. The presentation of patients can be during infancy, childhood, or adulthood, and this is due largely to variation in both the degree of obstruction to pulmonary venous return and the presence of associated lesions. We describe the case of a patient presenting in early adulthood with symptoms associated with cor triatriatum sinister and an primum atrial septal defect.

Keywords: Atrial septal defect, cardiac MRI, cor triatriatum sinistrum

P - 0120

PATTERNS OF MYOCARDIAL LATE ENHANCEMENT

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Abstract

Magnetic resonance imaging (MRI) was initially utilized to distinguish viable myocardium from scar tissue in the evaluation of cardiac pathologies. The use of MRI for this purpose is important for evaluating different cardiac pathologies with a non-invasive examination method. Myocardial late contrast enhancement has an important role in cardiovascular magnetic resonance imaging. In this review, we aimed to describe late contrast enhancement patterns on ischemic and non-ischemic cardiomyopathy cases such as myocarditis, sarcodiosis, amyloidosis, systemic sclerosis, Duchenne muscular distrophy, Becker muscular distrophy, systemic lupus erythematosus, hypertrophic cardiomyopathy, dilated cardiomyopathy, left ventricular non-compaction, arrhythmogenic right ventricular dysplasia, pulmonary hypertension and infective endocarditis.

Keywords: Cardiac imaging, ischemic cardiomyopathy, myocarditis, amyloidosis

P - 0121

CONSTRICTIVE PERICARDITIS MR IMAGING FINDINGS

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Abstract

Introduction: Constrictive pericarditis; is a rare disease that develops due to chronic inflammation of the pericardium and results in thickening of the pericardium, adhesion between the pericardial leaves and occasionally calcification. Diastolic filling of the heart is typically reduced, resulting in an increase in diastolic pressures. As a result, symptoms of systemic and pulmonary venous congestion occur. A case of constrictive pericarditis is presented with imaging findings.

Case Report: A 62-year-old male patient with chronic liver failure was admitted to our hospital. Dynamic liver computed tomography (CT) examination revealed contour nodularity compatible with chronic liver disease in the liver and hypertrophy of the caudate lobe. Hepatic venules and inferior vena cava were significantly dilated. Pericardial thickening and calcification was observed in the pericardium in the thorax sections included in the study. Contrast-enhanced cardiac MR images, revealed biatrial enlargement. The pericardium was thickened diffusely, especially in the vicinity of the right ventricle. The lateral wall of the right ventricle was compressed. There was mild enhanecement in the pericardium. Paradoxical wall motion was observed in the interventricular septum. The findings were consistent with constrictive pericarditis.

Conclusion: Constructive pericarditis is a rare but important disease that causes high morbidity and mortality. Diagnostic imaging methods can be used and MR imaging provides a significant advantage over other imaging modalities in terms of constrictive pericarditis in many ways.

Keywords: Cardiac MRI, constrictive pericarditis, pericardial thickening

P - 0122

FOUR PATIENTS WITH CARDIAC HYDATID CYST IN UNUSUAL LOCATIONS

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Abstract

Hydatid disease commonly involves liver but in rare cases, it can involve cardiac structures. Cardiac involvement in hydatid disease is uncommon, constituting only 0.5–2% of all cases of hydatidosis. We report three cases of hydatid cyst in unusual locations of heart. All patients underwent MR examination with a 1.5-T system (OPTIMA MR 450,GE) with ECG triggering. Areas of cardiac involvement in hydatid disease usually include the left ventricle (60% of cases), right ventricle (10%), pericardium (7%), pulmonary artery (6%), and left atrial appendage (6%); involvement of the interventricular septum is rare (4% of cases). One of our patients was 38 years old and the hydatid cyst was located in AV groove. In 13-year-old patient, hydatid cyst was located in the right ventricular free wall with pericardial massive effusion. the other patients cardiac mass was located in the lateral wall of the left ventricle. The diagnosis of hydatid cyst was confirmed by serological tests and operation. Early diagnosis and surgicomedical treatment is the success key of treatment for cardiac hydatid disease. In endemic areas, hydatid cyst should be considered in differential diagnosis of heterogeneous echogenic lesions in ECHO on even if the serologic tests are negative. Physician can use cardiac MRI to earn valuable information about the lesion and its relation to other structures.

Keywords: Hydatid cyst, cardiac MR, unusual involvement

P - 0123

MASS-LIKE HYPERTROPHIC CARDIOMYOPATHY: A DIFFICULT CASE TO DISTINGUISH FROM CARDIAC MASSES

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Abstract

Objective: Hypertrophic cardiomyopathy (HCM) is a cardiomyopathy which continues with focal or diffuse ventricular wall thickening without any other systemic or cardiological disease. HCM is the most-common primary cardiomyopathy and it has autosomal dominant genetic background. But some HCM types are difficult to diagnose like mass-like HCM. To describe MRI features of a case with mass-like HCM.

Materials and Methods: 49-year-old female patient with complaint of shortness of breath on exertion has been referred to our radiology department for cardiac MRI imaging. Cardiac MRI showed T1 and T2 hypointense focal lesion in the basal-mid cardiac portion of the interventricular septum. Lesion shows contractility on cine-steady state free precession (SSFP) and cine grid-tagged images. There were patch-like late gadolinium enhancement (LGE) areas in the lesion on phase sensitive inversion recovery (PSIR) images.

Conclusion: Mass-like HCM's are visualized as mass as similar intensity with myocardium and causes lobulation in myocardium contours. These findings lead to interpretation of this HCM subtype as a cardiac mass. Cardiac MRI plays a critical role in distinguishing mass and mass-like HCM at this point. Diffuse or focal myocardial thickening and patch like late gadolinium enhancement on thickened part are the main diagnostic imaging findings of HCM. But, these findings may not be enough to distinguish the focal/mass-like HCM from the cardiac masses. In such cases, demonstration of myocardial contractility gains importance in differential diagnosis. Myocardial contractility can be assessed in cine-SSFP sequences or more prominently in cine myocardial tagging images.

Keywords: Hypertrophic cardiomyopathy, tagging, mass-like HCM

P - 0124

CALCIFIED AMORPHOUS TUMOR OF HEART: A RARE CASE REPORT

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Abstract

Objective: Calcified Amorphous Tumor (CAT) is a rare, non-neoplastic mass which can mimic malign lesions of heart. It is first described in 1997. Before that time non-neoplastic masses of heart are known as pseudotumor and they were usually used for conditions related with thrombi. To describe cardiac magnetic resonance imaging (CMR) and computed tomography angiography (CTA) features of a case with cardiac calcified amorphous tumor.

Materials and Methods: 62-year-old female patient with mass conforming findings near to mitral valve on echocardiography imaging, has been referred to our radiology department for further evaluation. CTA imaging showed a calcified lesion near the posterior leaflet of mitral valve. After that patient evaluated with CMR. CMR showed a mobil, hypointense lesion on T1 and T2-weighted images near the annulus on mitral valve posterior leaflets inferior surface. Late gadolinium enhancement on the around the lesion which associated with fibroinflammatory process was observed.

Conclusion: Cardiac CAT is associated with nodular calcium deposits and with a background of fibrin and amorphous fibrillary material. Cardiac CAT usually seen as calcified or partially calcified mass on CT images. They usually visualized as hypointense lesions on T1 and T2 weighted images on MRI images. They can be seen as mobile mass depending on the attachment point. Cardiac CATs usually don't show enhancement on early or late gadolinium images. But our lesion showed peripheral enhancement related with fibroinflammatory reaction near lesion. Surgical excision in suitable patients can be curative. Valve repair may be necessary to prevent valvular dysfunction.

Keywords: Calcified tumor, pseudotumor of heart, CMR, cardiac MRI

P - 0125

SACCULAR ANEURYSM IN GREAT SAPHENOUS VEIN WHICH IMITATING HERNIA

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Abstract

Objective: Venous aneurysms are rare lesions and are important for the risk of life-threatening pulmonary embolism. Differential diagnosis should be made with inguinal hernia, femoral hernia or lymphadenopathies with the location of the Great Safen venous aneurysm. In this case report, MRI findings of a 64 year old female patient with a large saccular aneurysm were included.

Matherials and Methods: In the right femoral region, a thigh imaging with a 1.5 T MRI device (Magnetom Avento, Siemens Healthcare) was performed to the patient who complained of increasing swelling and pain for 1 month.

Results: In the MRI taken for the right thigh region, signal changes were observed proximal to the large saphenous vein, which corresponded to a 4.5 cm diameter, broad necked saccular aneurysm and a lumen thrombus.

Conclusion: In primary venous aneurysms, jugular vein, anterior part of the arm, femoral vein and popliteal vein aneurysms are frequently seen, and rarely are large saphen vein aneurysms. Serious problems can be encountered if there is not enough evaluation before the operation or biopsy.

Keywords: Vein, aneurysm, MRI, hernia

P - 0126

SYNOVIAL HEMANGIOMA AND VARICOSE VEINS OF THE KNEE JOINT

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Abstract

Introduction: Synovial hemangiomas are rare benign tumors of the knee joint. In childhood and early adulthood, there is confusion with knee pain and non traumatic hemarthrosis. They are often diagnosed late. Magnetic resonance imaging is the best diagnostic method and the best radiological examination in the differential diagnosis of other lesions of the knee joint.

Case Report: A 40-year-old male patient presented to our clinic with complaints of swelling and limitation of movement in the left knee. MRI showed suprapatellar, infrapatellar lobuleted mass containing fibrous septa and common varicose vein around the knee joint.

Conclusions: Synovial hemangiomas should be considered in patients with recurrent pain and swelling of the knee joint. Patients with late diagnosis develop osteoarthritis at an early age. For this reason, typical MR findings should be evaluated correctly.

Keywords: Synovial hemangioma, knee joint, MRI, varicose veins

P - 0127

FREIBERG DISEASE IMAGING FINDINGS: A COMMON CAUSE OF METATARSALGIA REVISITED

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Abstract

Freiberg disease, osteochondrosis of metatarsal heads, is a common cause of metatarsilgea. It is the only osteochondrosis seen more frequently in women than in men. When first identified, it was so called aseptic or avascular necrosis of the metatarsal head, and defined as the inco mpleteness of the metatarsal head. Normally, the current load is distributed to each metatarsal bones. Overloading of one of the metatarsal head in Freibergs disease causes micro fractures in the cortical changes of the long but less mobile metatarsal head. Recurrent microtrauma results in impaired subchondral flow, resulting in chondral collapse and necrosis. Wearing high-heel shoes may be a reason especially in adolescents and young women, in which one foot and one metatarsal is usually involved. One in ten of the patients may have both feet involvement. Accompanying reactive synovitis may cause swelling and limitation of motion in the joint. Pain is more pronounced in weight bearing and lean feet walking. MRI is important in the diagnosis at early stage. Surgical rescue osteotomy is performed in the early period of recovery and plays an important role management of the diseases. We aimed to present the radiological features of Freiberg disease including radiographic, CT, and MRI findings.

Keywords: Freiberg disease, metatarsalgy, avascular necrosis of metatarsal head

P - 0128

OSGOOD SCHLATTER DISEASE FOLLOWING SINDING-LARSEN-JOHANSSON SYNDROME: MRI FINDINGS OF TWO OSTEOCHONDROSIS OF KNEE IN SAME PATIENT

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Abstract

Introduction: Sinding-Larsen-Johansson (SLJ) syndrome is an osteochondrosis of the inferior pole of the patella. SLJ affects the proximal end of the patellar tendon as it inserts into the inferior pole of the patella. The SLJ syndrome is caused by increased tension and pressure due to repetitive traction by the patellar tendon on the lower pole of the patella. SLJ disease is seen in active adolescents, typically between 10-14 years of age . SLJ syndrome has a pathogenesis similar to that of the Osgood-Schlatter disease and two disorders sometimes occur simultaneously. In this case report, we aimed to present MRI findings in an 11-year-old-boy with a prior diagnosis of SLJ in whom Osgood Schlatter Disease and Clergyman knee developed in a year after SLJ diagnosis.

Case Report: A 11-year-old boy presented to a pediatric outpatient clinic with a 2-month history of knee pain. The pain was exaggerated especially after climbing stairs or walking for long distances. Standard X Rays on AP and lateral projections and right/left knee MRI were performed. A bony fragment at inferior pole of patella was seen on plain radiograph. There was also associated thickening of proximal patellar tendon. On MRI, the inferior pole of the patella, proximal and posterior part of the patellar ligament and surrounding soft tissues were hypointense on T1-weighted MRI sequences and hyperintense on fluid sensitive T2-weighted MRI sequences. A diagnosis of Sinding-Larsen-Johansson syndrome (osteochondrosis of the inferior pole of the patella) was made and patient was treated conservatively. At 1-year follow-up examination another series of X ray and knee MRI was performed for the same knee as the patient's symptoms hadn't resolved. On X ray, fragmented apophysis at tibial tuberosity and obscuring of infrapatellar fat planes were seen suggesting edema/effusion in this region. On MRI there were soft-tissue swelling anterior to the tibial tuberosity, loss of the sharp inferior angle of the Hoffa's fat pad, thickening and edema of the inferior patellar tendon and infrapatellar bursitis. Patient was diagnosed as Osgood Schlatter disease and Clergyman's knee.

Conclusion: Osteochondrosis of the tibial tuberosity (Osgood Schlatter disease) and osteochondrosis of the inferior patella (SLJ syndrome) occur at tendinous insertions of the patella at the distal and proximal levels, respectively. Infrapatellar bursitis (clergyman knee) occurs with inflammation of bursae around the insertion of the distal patellar tendon. Infrapatellar bursitis may be a component of Osgood-Schlatter disease.

Keywords: Sinding-Larsen-Johansson syndrome, Osgood-Schlatter, MRI

P - 0129

GIANT SOLITARY SYNOVIAL OSTEOCHONDROMA OF THE HIP

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Abstract

Giant or solitary osteochondroma is part of a rare disorder known as synovial osteochondromatosis. Usually arising from the juxta-articular soft tissues without attaching to the bone, these lesions can be large and show clinical and radiological features of a malignant process. It usually present in adult population and is rare in children. The main symptoms are pain, swelling and limitation of movements in the affected joint. This report is about 22 old male patient present with pain and limited range of motion at hip and right leg caused by giant solitary synovial osteochondroma of the hip. In this rare case we demonstrate the X-ray and MRI findings of the giant osteochondroma.

Keywords: Solitary osteochondroma, pain, hip

P - 0130

HUMERAL CHONDRAL DEFECT AND LABRAL TEAR ASSOCIATED WITH PARAGLENOID LABRAL CYST: A CASE REPORT

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Abstract

Objective: To report an unusual combination of paraglenoid labral cyst and labral tear with chondral defect of the humeral head.

Clinical Presentation: A 34-year-old man presented with right shoulder pain. Conventional MR imaging showed paraglenoid labral cyst. MR arthrography revealed a humeral chondral defect and labral tear associated with paraglenoid labral cyst, and a defect of the posterior inferior labrum extending to the superior labrum and humeral chondral defect. The patient underwent arthroscopic surgery.

Conclusion: This case showed the importance of MR arthrography in a case that involved an unusual combination of paraglenoid labral cyst and labral tear with chondral defect.

Keywords: Paraglenoid labral cyst, 3D VIBE MR arthrography sequence, labral tear, chondral defect

P - 0131

RIGHT HAND 2ND FINGER A1 PULLEY RUPTURE

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Abstract

Flanks movements are provided by deep and superficial flexor tendons. The fibrous construct that provides stabilization of the flexor tendons is called pulley. Pulleys are 2 types including anulus and krusiform. While the annular scales are thicker and stronger than the crusiform scales are thinner and the annular scales prevent tendon dislocation, they also allow optimal joint motion. Krusiform pulley facilitates the movement and contributes to flexibility. Scales sticking to the periosteum and volar plate of phalanges slide along the fibrous canal. Except for the thumb, there are a total of 8 pulleys, 5 of which are annlar and 3 of which are crusiform. The pulleys supporting the synovial sheath are separated according to joint levels. There is A1 at the level of the MKP joint, A3 at the PIF joint level, and A5 Pulleyi at the DIF joint level. A2pulley is from the MP joint to the begining of proximal phalanx. A4 pulley is proximal to middle phalanx. In the absence of A2 and A4 pulleys, finger flap loss increases. Thus it must be repaired absolutely. Generally pulley rupture include long fingers. Pulley injuries usually start at A2 and these injuries are called climber's finger. Isolated A1 pulley injury is rare. We aimed to present A1 rupture findings in a 34-year-old man who presented with hand pain complaints.

Keywords: Pulley rupture, A1 pulley injury, climbers finger

P - 0132

MALIGN PERIPHERAL NERVE SHEATH TUMOR: A CASE REPORT

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Abstract

By definition, malignant soft tissue tumors arising from nerve tissue, including neurofibrosarcoma, neurosarcoma and malignant schwannoma, are included. The origin may be the schwann cell as well as the fibroblast and the perineural cell. These are called malignant peripheral nerve sheath tumors (MPSCT) because of the difficulty in distinguishing them. The great nerve involvement in the extremity and body is frequent. It is seen in 2-5% of patients with neurofibromatosis. However, half of the patients with MPSCT are NF-1. Involvement in children is rare. The mass does not show any sign until it reaches a certain size, so the mixture comes out as massive masses. Symptoms such as pain, weakness and numbness occurs late. 1/5 of the tumors come to the upper extremity. This constitutes approximately 3% of all malignant tumors of the hand. We aimed to present the radiological features of malignant peripheral nerve sheath tumors in a 79-year-old woman with wrist pain.

Keywords: MPSCT, NF-1, Nerve sheath tumor

P – 0133

CHARCOT SHOULDER: A DIFFERENTIAL DIAGNOSIS TO BE KEPT IN MIND

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Abstract

Neuropathic arthropathy, also known as Charcot joint, is a progressive and chronic degenerative disease which causes loss or reduction of sensation

and pain or destruction of the affected joint. One of the most common causes is syringomyelia. Patients with syringomyelia frequently suffer from shoulder involvement. Neuropathic arthropathy may develop early or late in the course of syringomyelia and occurs 25% all cases of syringomyelia. MRI is the most useful imaging modality to diagnose syringomyelia and neuroarthropathy. In the early stage of the disease, joints can be warm and erythematous and it can be difficult to differentiate from septic arthritis. In addition to this, joint effusion, soft-tissue swelling, joint space narrowing, subchondral sclerosis and osteophytes are early radiologic findings in common with primary osteoarthrosis in the early stages. It is important to think about differential diagnosis due to varied treatment plans. Herein, we present MRI findings of a patient with neuropathic arthropathy of the shoulder secondary to Chiari type I malformation associated with syringomyelia.

Keywords: Charcot joint, syringomyelia, neuropathic artropathy

P - 0134

INTRAMUSCULAR EXTRAOSSEOUS PLASMACYTOMA: A CASE REPORT

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Abstract

In multiple myeloma, secondary infiltration of muscle structures adjacent to bone lesions is frequently seen. Nevertheless, plasmacytoma, which occurs directly in muscle tissue without bone lesions, is rarely reported. Typically seen in the head and neck. It accounts approximately 3% of all plasma cell neoplasms. MRI examination of a 78-year-old male patient who presented with swelling and pain on the way to our institution revealed a solid mass lesion within the triceps muscle. The result of the biopsy was an extraosseous plasmacytoma. In this case report, we present radiological imaging findings of isolated extraosseous plasmacytoma in the triceps muscle without bone lesion.

Keywords: Multiple myeloma, muscles, neoplasms, plasmacytoma, plasma cell

P - 0135

SYNOVIAL CHONDROMATOSIS MIMICKING SOFT TISSUE CHONDROSARCOMA

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Abstract

Synovial chondromatosis, joint, tendon sheath or synovial membrane of the bursa metaplasia is characterized by the formation of multiple chondral or osteochondral nodules within the resultant synovium. It is benign and usually monoarticular. It is most often seen in large joints such as the knees, hips, shoulders and elbows, less frequently in the joints of the foot and ankle. In this case report, we present MRI findings of a 39-year-old female patient with synovial chondromatosis diagnosed as aggressive behavior that mimics soft tissue chondrosarcoma causing erosion in adjacent bone structures in infiltrative form at the level of intertarsal and tarsometatarsal joints.

Keywords: Synovial chondromatosis, joint, soft tissue chondrosarcoma

P - 0136

A RARE ENTITY; OSTEOID OSTEOMA OF TALUS

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Abstract

Osteoid osteoma is a benign, osteoblastic well circumscribed tumor of spongy bone. Osteoid osteoma can be localized in all bones. It is more common in the lower extremities. It is most common in femur and secondly in tibia. Osteoid osteoma is localized approximately % 60 in femur and tibia. In %20 of the cases, it locates in hand and foot bones. It is seen most in proximal phalanx, metacarpal bones and scaphoid. It is seen % 4-5 in talus, %2-3 in calcaneus. Approximately %10 of cases is localized vertebrae. High degree of suspicion is needed for early diagnosis and delay in diagnosis can cause significant disability because of osteoid osteoma is a rare entity in the tarsal bones. If the diagnosis is made early, it can be treated without complication. Radiofrequency ablation is safe, minimally invasive method especially to treat juxta-articular and inaccessible lesions.

We present radiological findings of a osteoid osteoma of the talus which was not been suspected over a long time because of its rare location.

Keywords: Osteoid osteom, talus, CT, MRI

P - 0137

KNEE SYNOVYAL SARCOMA: MRI FINDINGS

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Abstract

Objective: Synovial sarcoma is a malignant soft tissue tumor. It is seen around joints in the young adults. The most common sight after the knee is the foot. We present a magnetic resonance imaging (MRI) scan of a 55-year-old female patient with synovial sarcoma of the left knee.

Materials and Methods: A 55-year-old female patient who presented with swelling and pain in the left knee and had no trauma history was examined by magnetic resonance imaging with a 1.5 Tesla MRI device (Magnetom Avanto, Siemens Healthcare) for knee imaging.

Results: In our case, there was a lobulated, enhancing mass which is seen as heterogeneous hypointense on T1-weighted images, heterogeneous hypo-hyperintense on T2-weighted images in periarticular soft-tissue on the lateral side of the left knee joint. The case was diagnosed as synovial sarcoma histopathologically after surgical resection.

Conclusion: Synovial sarcoma accounts for 5-10% of all soft tissue sarcomas. It is seen often between 3 and 5. decades. 65% of the cases have lower extremity location around the knee is the most common location. The most common finding is a mass with pain and sensitivity. Biphasic type, monophasic fibrous type and poor differentiated type are the histopathological types. The prognosis is poor. Synovial sarcoma often grows slowly. The organ in which soft tissue sarcomas metastasize

in the first place is the lung. For this reason, computerized tomography of thorax and whole body bone scintigraphy should be requested. The tumor site can be best demonstrated by MRI. Standard treatment is surgery and lesion show sensitivity to chemotherapy. In the postoperative period, recurrence or pulmonary metastasis should be controlled at intervals.

Keywords: Synovial sarcoma, MRI

P - 0138

A CASE REPORT - MULTIPLE ENCHONDROMATOSIS (OLLIER DISEASE)

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Abstract

Olliers disease (OD) is one of the rare disorders which is characterised by non-hereditary multiple enchondromatosis with at least 3 enchondromas seen in the metaphyseal regions of appendicular skeleton. The prevalence of the disease is 1 / 100.00.The phalanges and metacarpals are the most commonly effected sites by the disease. It is often manifested in first decade of life. A 12-year-old female who was complaining pain on her left hand for 3 months after trauma had gone to X-ray study. An osteolytic lesion was seen on the 3rd phalanx. Hence she was refered to MRI. The findings were regarded as a multiple enchondromatosis. OD was first described by Ollier in 1899.Spranger classification which is comprehensive for multiple enchondromatosis is used for the definition of the disease. OD is Spranger type 1.The pathogenesis of enchondromatosis is not clearly understood. Recently, some authors believe that the heterozygous mutations of PTHR1, IDH1(most common) and IDH2 genes play some role in pathogenesis of the disease. Approximately 30% of cases with multiple enchondromatosis may transform into chondrosarcomas similar to other echondromas.In addition they are at risk of developing glioma, pancreas tumors and ovarian juvenile granulosa cell tumors. Even if OD is a rare disorder, proper diagnosis and follow-ups are crucial because of the risk of malignant transformation. Our aim present a case repor with Ollier Disease and talk about the epidemiology, diagnosis and radiological findings of ollier disease.

Keywords: Multiple enkondrom, syndrom, malignity

P - 0139

ACCESSORIES MUSCLES AND OSSICLES IN THE MUSCULOSKELETAL SYSTEM

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Abstract

Accessory ossicles are secondary ossification centres these are discrete from the attached bones. Sesamoids and accessory ossicles are often found on the feet, knees and hands. They are often congenital, although they appear as a result of trauma or local degenerative diseases. The incidence of symptomatic accessory bones is relatively small. Accessory ossicles may be associated with painful syndromes, as well as trauma, infection, inflammation, degenerations.it can be very difficult to differentiate between incidental variants and what is really symptomatic. However, the main clinical importance of accessory bones is their ability to mimic avulsion fractures and lead to compression syndromes. Accessories muscles are anatomical variants characterised by an additional distinct muscle encountered along a normal muscle. Although they are generally asymptomatic, and randomly encountered. Sometimes, these may be symptomatic. Such symptom often mass effect of the supernumerary muscle. The other presenting with either a palpable swelling or secondary compression of near structures such as nerves, vessels, or tendons. Our purpose in this report is to present the radiological features of accessory muscles and bones that causing various clinical symptoms.

Keywords: Accessory bone, accessory muscle, compression syndrome

P - 0140

CARDIAC METASTATIC TUMOURS

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Abstract

Metastatic cardiac tumors are seen about 30 times more common than primary cardiac masses in adult population. Many patients with cardiac metastatic disease usually have no significant symptoms therefore their diagnosis is usually discovered postmortem. Cardiac metastatic tumours can spread to heart through four alternative pathways:by direct invasion from peripheral adjacent tissues (lung, breast, esophagus), lymphatic extension, hematogenous spread by blood vessels (melanoma, lymphoma, leukemia) or transvenous extension to both atriums (renal cell carcinoma, hepatocellular carcinoma). The most common tumors that metastasize to the heart are lung and breast carcinomas, lymphoma, malignant melanoma. Cardiac magnetic resonance imaging is very sensetive and specific to detect cardiac massses but there is no specific signal characterization of cardiac metastases on magnetic resonance imaging. These masses are usually seen hypointense on T1 weighted series and hyperintense on T2 weighted series except malignant melanoma metastases. Almost all malignant lesions will show detectable signal enhancement on contrast-based sequences. In this report, cardiac metastases from different origins that spread to heart through different pathways, such as invasive thymoma, anaplastic thyroid cancer, hepatoselluler carcinoma, leukemia, lymphoma nasopharynx carcinoma, renal cell carsinoma and lung carcinoma were emphasized.

Keywords: Cardiac magnetic resonance, metastatic cardiac masses, spread of metastasis to heart

P - 0141

A RARE CAUSE OF MEDIAN NERVE ENTRAPMENT NEUROPATHY: CARPAL LIPOMA

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Abstract

Introduction: Lipomas are common benign soft tissue tumors and may appear in different anatomical regions of the body, are rarely seen in the hand. These lesions, in varying sizes, can cause some complications and clinical symptoms depending on the mass effect on the anatomic region. Especially lesions in the hand, can cause carpal tunnel syndrome (CTS), due to the proximity to the median nerve or to compression effect. In this article, the lipoma causing median nerve entrapment will be discussed, although it is not located just in the carpal tunnel but distally.

Case Report: A 75-year-old female patient presented to the orthopedic clinic with a right hand palmar mass and median nerve entrapment clinical symptoms. EMG examination, than radiologic imaging was performed considering CTS as a preliminary diagnosis. EMG results supported CTS. On MRI, in the 3-4. metatarsal levels, a lipomatous mass was found in the dimensions of about 3x3x4 cm, displacing the tendons of the flexor group on the palmar side of the hand. The histopathologic evaluation obtained after surgical intervention was compatible with lipoma.

Conclusion: Lipomas causing carpal tunnel syndrome are very rare lesions and can lead to symptoms of entrapment neuropathy, particularly in the carpal tunnel or near it, by compression of median nerve. CTS is the most common entrapment neuropathy of the upper extremity, often seen between the ages of 36-60 years and mostly in female. EMG is quite useful in diagnosis. However, MRI plays a very important role in the differential diagnosis of mass lesions that may cause CTS, and also demonstrate lesion characteristics and the relationship between the mass and the adjacent anatomic structures detailly, thus contributing to the highlightening the symptomatology as well as to the management of the treatment.

Keywords: Carpal tunnel syndrome, lipoma, MRI

P - 0142

AN ANATOMICAL VARIANT OF ACETABULUM: 'SUPERIOR ACETABULAR NOTCH'

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Abstract

Introduction: A superior acetabular notch has been described as an anatomic variant where there is a focal defect within the subchondral bone of the acetabular roof. The purpose of this case is to describe this anatomic variant of acetabulum to distinguish it from pathologic osteochondral lesions.

Case Report: A magnetic resonance imaging (MRI) was obtained from a 15-year-old male who presented to the orthopedic outpatient clinic with a complaint of low back pain and hip pain on the left side for six months. On pelvic MRI, an millimetric interruption was observed on the subchondral bone and the cartilage of the left acetabulum. A defect was detected on the left pars interarticularis of the L5 vertebra on lumbar MRI and the patient's complaint was attributed to this lesion.

Conclusion: The radiological interruption of the medial portion of the acetabular roof which is commonly seen in normal subjects is an anatomical notch in the apex of the acetabulum. This has no known function and represents an anatomic variant. Superior acetabular notchs are commonly seen on MR and MR-arthrograms. That a superior acetabular notch is symmetric, that it has well defined borders and an absence of pathologic signal change of the medulla, is important to distinguish a superior acetabular notch from an osteochondral defect. The remarkable aspect of our case was that the lesion was unilateral, because this unilaterality might lead to a wrong diagnosis as an osteochondral lesion. Besides this, the typical localization, morphology and absence of pahologic signal changes in the periphery all support the presence of normal variation.

Keywords: MR, normal variant, superior acetabular notch

P - 0143

SPINAL DYSRAPHYSM SPECTRUM REMEMBER WITH CASES

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Abstract

Introduction: The spine and spinal cord are a complex anatomic structure. That's why their congenital anomalies tend to be complex and confusing. This complexity make the neuroradiologic diagnosis challenging. Because magnetic resonance imaging plays a crucial role in both diagnosis and postoperative evaluation, we aim to remember useful Tortori-Donati and Rossi classification with understandable short notes and to provide an algorithm for an organized approach.

CASE 1: Syringohydromyelia + cervical diastematomyelia

CASE 2: Closed dysraphism with no mass + complex form (diastematomyelia + causdal agenesia) + cervical ectasia + dermal sinus

CASE 3: Closed dysraphism with no mass + simple form (tight filum terminale) + filar cyst + ventriculomegaly

CASE 4: Closed dysraphism with no mass + simple form (dermal sinus + tight filum terminale + diastematomyelia + persisten terminal ventricle)

CASE 5: Spinal dysraphism mimicker postoperative changes

CASE 6: Postoperative lumbar dural tear and subcutaneous CSF leak

Conclusion: Congenital malformations of the spine and spinal cord can be complex and confusing. An organized approach to imaging findings allows greater ease in diagnosis.

Keywords: Spinal dysraphysm, algorithm, classification

P - 0144

THE RARE CAUSES OF THE KNEE PAIN AND CHRONIC EFFUSION: LIPOMA ARBORESCENS

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Abstract

Objective: We aimed to present magnetic resonance imaging (MRI) findings of lipoma arborescens, a rare cause of long-lasting pain and recurrent effusion attacks in the knee joint.

Materials and Methods: A 53-year-old male patient was received to our hospital with the complaint of a knee pain which continued for a long time and increased with movement. No increase in temperature was observed on physical examination. Patients with no significant laboratory findings knee MR imaging was performed in the radiology clinic. Effusion in suprapatellar bursa and multiple nodular lesions with hyperintensities on T1 and proton density-weighted images in the synovium was detected. The signal intensity of the lesions was coexistent with subcutaneous adipose tissue. Suppression was detected in oil-imprinted sequences. The signal intensity of the lesions was coexistent with subcutaneous adipose tissue. Suppression was detected in oil-imprinted sequences

Results: According to the findings of knee MRI, the patient was diagnosed with lipoma arborescens (LA).

Conclusion: Lipoma arborescens (LA) is a rare intraarticular lesion formed by lipomatous proliferation of synovium. There are slowly increasing, painless swelling in the knee joints of patients for many years and recurrent effusion attacks. Diagnostic magnetic resonance imaging (MRI) is the gold standard. Pathologically, villous proliferation of synovial membrane and hyperplasia of mature fat tissue in subsynovial tissue are present. LA is usually seen in middle-aged men. LA is a disease that should be remembered in patients with long-standing swelling in the knee joint.

Keywords: Lipoma arborescens, magnetic resonance, knee pain

P - 0145

A RARE MASS LESION IN HOFFA: EXTRASKELETAL CHONDROMA

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Abstract

Objective: Hoffa's pad is an intracapsular extrasynovial wedge shape adipose tissue that is localized anterior of the knee. Abnormalities related with Hoffa commonly are the consequences of trauma and degeneration, but inflammatory and neoplastic diseases can arise in the fat pad. The purpose of this paper is to describe a rare mass lesion with in Hoffa's pad and to increase awareness about Hoffa's pad tumors.

Materials and Methods: 35 years old women who is complaining about chronic pain on the anterior part of her knee is consulted to our radiology department. On rontgenogram, CT and MR images findings are consistent with edema, inflammation and ossifying mass lesion with in her infrapatellar fat with no bone destruction.

Results and Conclusion: Hoffa's pad tumors are an uncommon and rarely diagnosed lesions that can be misinterpreted as any knee pathology. It's important to diagnose this clinical condition early and to start the appropriate treatment in order to avoid morbidity. Although the majority of tumours are benign, malignant tumours should be considered especially in the paediatric population.

Keywords: Hoffas pad, extraskeletal chondroma, chronic pain

P - 0146

PATELLAR TENDON GANGLION IN PATELLAR TENDON-LATERAL FEMORAL CONDYLE FRICTION SYNDROME

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Abstract

Intratendinous ganglia are rare. We report the case of a 55 year old woman with chronic anterolateral pain of the knee and a ganglion of the patellar tendon as indicated on magnetic resonance (MR) examination. There was evidence of patellar tendon-lateral femoral condyle friction syndrome with significantly close contact between the patellar tendon and the lateral facet of the femoral trochlea. To our knowledge, we report the second case of a ganglion of the patellar tendon subsequent to patellar tendon-lateral femoral condyle friction syndrome. We believe that this case is illustrative of mucoid degeneration in connective tissue due to chronic repetitive microtraumas.

Keywords: Patellar tendon, ganglion, friction syndrome

P - 0147

A RARE CASE, PRIMARY PATELLAR ANEURYSMAL BONE CYST MRI FINDINGS

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Abstract

Objective: Aneurysmal bone cyst (ABC), which is seen in 1% of primary bone tumors, is a rare bone lesion and patellar location is very rare. In this case, we aimed to present primary patellar aneurysmal bone cyst.

Materials and Methods: A 15-year-old male patient was admitted to our hospital because of left-sided knee pain which continued for one year, increased activity and decreased at rest. The last 15 days have developed swelling in the area of pain. A direct radiograph was requested from the patient in terms of differential diagnosis.

Results: On a direct X-ray examination, a multiloculated lytic lesion causing enlargement of the patella was detected. In terms of differential diagnoses, MRI examination was requested. On T1-weighted and T2-weighted MR images, a multiloculated cystic lesion filled with the entire patellar lumen with fluid-fluid levels was observed (and 3). Post contrast images showed septal contrast nhancement. The patient was evaluated as primary ABC with radiological and histopathological findings.

Conclusion: ABC is a tumor-like, benign, enlarging bone lesion that occurs in 1% of primary bone tumors. ABC can develop in normal bone, and it can develop in a pre-existing lesion base such as giant cell tumor, chondroblastoma, chondromyxoid fibroma, osteosarcoma, fibrous dysplasia, eosinophilic granuloma, trauma, and it is called as secondary ABC. Typical radiographic appearance of ABC is eccentrically located, expansile, occasionally osteolytic bone lesion.In computed tomography and magnetic resonance imaging, the lesion resembles honeycomb with internal septa and fluid-fluid levels.

Keywords: Aneurysmal, cyst, patellar, primary

P - 0148

HEREDITARY MULTIPLE EXOSTOSES WITH GIANT PELVIC CHONDROSARCOMA: MR IMAGING FINDINGS

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Abstract

Hereditary multiple exostoses (HME), also known as diaphyseal aclasis, is an rare disease with autosomal dominant condition, characterised by the development of multiple osteochondromas. Ostochondomas are cartilage-covered bone tumors that arise from metaphyses of long bones and grow outwards. The diagnosis can be made with radiological and / or clinical findings. Many complications of HME have been described., but the most feared is malignant transformation. The prevalence of chondrosarcoma in the general population is 1 in 250,000-100,000. In patients with HME, the risk is 5%. Axial skeletal elements (pelvis, scapula, rib, vertebrae) are the most common sites of sarcomatous degeneration in osteochondromas. We will present MRI findings of a 38-year-old male patient referred to our hospital with a complaint of giant palpable mass in his pelvis. Pelvic localization of the lesion caused to marked increase in lesion size without any symptoms. Histopathologic examination of the giant pelvic mass was found to be compatible with chondrosarcoma. On the skeletal survey; Madelung deformity and a large number of osteochondromes in the upper and lower extremities and in the ribs were observed.

Keywords: Hereditary multiple exostoses, osteochondroma, chondrosarcoma

P - 0149

NORMAL DEVELOPMENTAL IRREGULAR OSSIFICATION OF THE LATERAL FEMORAL CONDYLE: IMAGING FINDINGS

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Abstract

The process of ossification of long bones during skeletal maturation is a complex and dynamic process. The ossification centers within the cartilage-containing epiphysis centers undergo endochondral ossification. During this process, a nodular and fragmented appearance may occur at the edges during ossification. Irregular ossification centers are commonly seen at the distal femoral condyle epiphysis, humeral trochlea, and navicular bone. Females are more frequently affected during rapid growth periods. The medial compartment is affected more frequently than the lateral compartment, however irregular ossification areas may be bilateral. This normal variations in developmental period may be confused with osteochondral defects and OCD. The absence of bone marrow edema helps to diagnosis. Both has a similar appearance on plain radiographs. Irregular cortical borders on the radiographs may also mimic fracture lines. Irregular ossification centers are frequently located in the posterior inferior portion of lateral femoral condyle. The cartilage must be intact in irregular ossification. MRI is helpful in differential diagnosis. We aimed to present the radiological findings of irregular ossification at knee joint in a 7 year-old-male.

Keywords: Irregular ossification, lateral femoral condyle

P - 0150

ANEURYSMAL BONE CYSTS CAUSED TO FORAMINAL OBLITERATION AND MONOPARESIA

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Abstract

Objectives: Aneurysmal bone cysts (ABCs) are rare entities that causes expansile and destruction of bone tissue lesions characterized by response to reactive proliferation of connective tissue.. We aimed to present MR findings of ABC that caused significant foraminal compression and monoparesia in this case.

Materials and Methods: A 16-year-old female patient admitted to clinic with lomber pain, swelling and suffering of being unable to walk which started 3-4 months ago. After the examination, lomber MR planned to the patient in our department.

Results: On the contrast-enhanced spinal MR, showed that neural foramen obliteration with in the right half of the L1 vertebra approximately 63x46 mm dimension, lytic and expansive, hypointense with septations on T1-weighted images, heterogeneous hyperintense showing fluid-fluid levels in T2-weighted images, peripheric and septal contrast enhancement lesions were observed after intravenous contrast material injection. The lesion, which was interpreted as an ABC, was reported as ABC with postoperative pathologic result.

Conclusion: ABC is a benign, tumor-like, high vascular quality, local aggressive and relatively rare osteolytic lesion. Lesions occur primary in the first two decades of life, with relatively female dominance. The third most common benign bone tumor is aneurysmal bone cyst after osteoid osteoma and osteoblastoma. Primary aneurysmal bone cysts constitute 1.4% of primary bone tumors. They holds vertebral column especially the lumbar-posterior bone elements and forms 3-30% of cases. Differential diagnosis of the ABC are other benign-malignant tumors with fluid-fluid levels (giant cell tumor, chondroblastoma, and telangiectatic osteosarcoma).

Keywords: Aneurysmal bone cysts, MR findings, bone tumours

P - 0151

A RARE CAUSE OF HEEL PAIN: BAXTER NEUROPATHY

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Abstract

Objective: Entrapment of the primary branch of lateral plantar nerve (Baxter nerve entrapment) is one of the rare causes of heel pain. Clinically it is difficult to diagnose but there are clues for a radiologist who knows what to look for. In this presentation, magnetic resonance imaging (MRI) findings of a case with Baxters neuropathy (BN) are summarized.

Materials and Methods: Forty-one year old female patient with chronic heel pain for 1.5 years, unresponsive to conservative treatments, was referred to our clinic for further investigation. Frontal and lateral view radiographs of the ankle and 3.0 T MRI were performed, which revealed a calcaneal spur and severe, isolated fatty atrophy in the adductor digiti minimi muscle.

Conclusion: Differantial diagnosis of heel pain includes various entities such as plantar fasciitis, fat pad atrophy, calcaneal stress fracture, neoplasia, infections. BN is a rare cause for which treatment of choice is decompression surgery. It presents with medial sided heel pain similar to plantar fasciitis, which itself may be a cause of nerve entrapment. Characteristic MRI findings are atrophic changes in adductor digiti minimi muscle due to denervation, which are best appreciated on T1- weighted images without fat suppression at late stages as in our case. MRI plays a key role both in revealing the undelying pathology as well as ruling out other possible differential diagnoses such as stress fractures, masses, plantar fasciitis, tendon pathologies.

Keywords: Baxter neuropathy; inferior calcaneal nerve entrapment; lateral plantar nerve; magnetic resonance imaging

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ISCHIOFEMORAL IMPINGEMENT: HIP PAIN OF INFREQUENT CAUSE

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Abstract

Ischiofemoral impingement (IFI) is a recently identified clinical condition characterized by the decreased space between the lesser trochanter and ischial tuberosity leading to compression of quadratus femoris muscle in between (1). IFI usually occurs in middle-aged to elderly women, with a presenting symptom of hip pain. However, it may affect both genders at all ages, ranging from 11 to 77 years. Bilateral hip involvement has been observed in 25-40 % of patients (2). MRI findings include abnormalities quadratus femoris muscle (muscle edema, partial tear, and atrophy). Up to 50 % of patients have also associated hamstring tendon edema and 25% partial tear. We here in aimed to describe MRI findings of IFI syndrome in a 55 year-old-woman with low back pain.

Keywords: Ischiofemoral impingement syndrome, MRI

P - 0153

WRISBERG VARIANT, A RARE SUBTYPE OF DISCOID MENISCUS

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Abstract

Wrisberg variant is less common form of discoid meniscus that means lack of posterior meniscocapsular attachment to joint capsula and tibia of lateral meniscus and can leads to anteriorly flipped posterior horn of meniscus. Here, we aimed to present 18 years old female patient who have bilateral wrisberg variant discoid meniscus with anterior subluxation.

Keywords: Wrisberg variant, discoid, meniscopathy

P - 0154

DIAGNOSIS OF RARE SKELETAL MUSCLE INVOLVEMENT IN A MALT LYMPHOMA CASE USING DISTINCTIVE IMAGING FINDINGS

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Abstract

Involvement of skeletal muscles either primary or secondary is an extremely rare feature of all type of lymphomas. Extranodal marginal zone B-cell lymphoma of mucosa associated lymphoid tissue (MALT lymphoma) of skeletal muscles are even more rare. Nevertheless, the imaging findings are distinctive. Regardless of the imaging modality, long segmental and multicompartmantal involvement, intralesional vessels, infiltrative appearance, adjacent subcutaneous stranding and skin thickening are the main features of skeletal muscle lymphomas. They are highly vascular and cellular tumours. Herein, we present a MALT lymphoma case with involvement of skeletal muscles in order to highlight the imaging features. An 80y old female patient presented to opthalmology clinic with a lump on her left eyelid and right forearm. After excision of eyelid

lesion she was referred for radiological evaluation of her forearm lump. US revealed a hypervascular mass within the flexor muscle group which had echotexture similar to normal musculature. MRI demonstrated a homogeneous infiltrative lesion showing restricted diffusion. The muscles were enlarged with preserved architecture. Encasement of the neurovascular bundle and nodular subcutaneous extension were also noted. MALT lymphoma was diagnosed after US-guided core biopsy. The eyelid lesion demonstrated same histopathology. CT revealed further chest and abdominal wall masses.

Keywords: Extranodal marginal zone lymphoma (EMZL), mucosa associated lymphoid tissue (MALT), skeletal muscle lymphoma, diffusion weighted imaging (DWI), magnetic resonance imaging (MRI), ultrasound (US)

P - 0155

MRI FINDINGS OF MYONECROSIS WHICH OCCURS AFTER HIGH VOLTAGE ELECTRICITY BURN

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Abstract

Myonecrosis is a myopathy which involves the infarction of the skeletal muscle. Although secondary to clostridial infections is the main cause; trauma can be reason for myonecrosis. Differantiating from the intraabdominal abscess is important to determine the appropriate treatment regime. In this case, we both aimed to present the MRI findings of left arm myonecrosis due to high-voltage.

Keywords: MRI, electrocution, myonecrosis

P - 0156

ANGIOIMMUNOBLASTIC T-CELL LYMPHOMA MIMICKING ABSCESS: CASE REPORT

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Abstract

Angioimmunoblastic T-cell lymphoma (AITL) is a rare subset of peripheral T-cell lymphoma, which accounts for 1-2% of non-Hodgkins lymphomas. They frequently appear in the 7th decade and present with generalized lymphadenopathy and hepatosplenomegaly. Extranodal involvement such as lung, skin and bone marrow may also be present. In this case report, a 38-year-old male patient with a diagnosis of AITL mimicking abscess in biceps brachii muscle was presented with magnetic resonance imaging findings.

Keywords: Abscess, angioimmunoblastic T-cell lymphoma, extranodal

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EXTRAPLEURAL SOLITARY FIBROUS TUMOR OF THE INGUINAL AREA: CASE REPORT

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Abstract

Solitary fibrous tumors (SFT) are rare tumors of mesenchymal origin. They form less than 2% of soft tissue tumors. They mostly show intrathoracic placement although their wide anatomical distributions. One third of them show extrathoracic location and may originate from any soft tissue or visceral localization. The differential diagnosis includes benign nerve tumors, smooth muscle tumors and monophasic synovial sarcoma. In this case report, a 43-year-old female patient was presented with magnetic resonance imaging findings of extrapleural SFT in the right inguinal region.

Keywords: Extrapleural, soft tissue tumor, solitary fibrous tumor

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TWO CASES OF UNDIFFERENTIATED PLEOMORPHIC SARCOMA OF SHOULDER AND THIGH AS A PAINLESS LARGE MASS

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Abstract

Soft tissue sarcomas arises from transformed cells of mesenchymal origin. Soft tissue sarcomas are not common tumors but unfortunately in adults soft tissue malignancies are one of the most common cancers. The most common types of soft tissue sarcomas are liposarcoma, fibrosarcoma, dermatofibrosarcoma protuberans and malignant fibrous histiocytoma. Sarcoma is classified for their differentiation pattern as low grade, intermediate grade, high grade and undifferentiated respectively. Undifferentiated pleomorphic sarcoma, or named as malignant fibrous histiocytoma previously, is a type of soft tissue cancer which usually originated from arms, legs, and less often in abdominal cavity and retroperitoneum. Undifferentiated pleomorphic sarcoma are rare tumor, accounting for 4th most common soft tissue sarcoma and incidence has been evaluated to 1-9 per 100000 per year. Clinically, undifferentiated pleomorphic sarcoma has no specific signs and presents with painless large mass, pathological fractures and rapidly growing mass. We present two cases of undifferentiated pleomorphic sarcoma thigh and shoulder. A 39-year-old man presented with a 25 cm diameter rapidly growing painless mass in the left shoulder for one month and a 71- year- old man presented with a 18 cm diameter rapidly growing mass in the right thigh. In MRI examina-

tion, poorly demarcated solid masses with cystic component were seen. In T1 sequence, both masses have heterogeneity iso-high signal intensity with prominent enhancement of solid components and In T2 sequence, intermediate to high signal intensity were seen.

Keywords: Undifferentiated pleomorphic sarcoma, MRI, shoulder, thigh

P - 0159

PARADOXIC HYPERTROPHY OF THE SCIATIC NERVE AFTER LIMB AMPUTATION

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Abstract

Paradoxic sciatic nerve hypertrophy can occur in following lower limb amputation for malignant and nonmalignant conditions. Sciatic nerve hypertrophy is greatest in transection site and gradually decrease proximally. It is called paradoxic because of nerve atrophy usually occured after limb amputation. The etiology is unclear and dysregulated axonal transport may cause of paradoxical hypertrophy. It cause unnecessary biopsy whether a residual or locally recurrent tumor can occur. In this case we present of paradoxic sciatic nerve hypertrophy after left lower limb amputation. A 34 year-old man bove-knee amputation underwent a surveillance MRI of the lower extremities. It revealed an tubular structure of high signal intensity compared to muscle on coronal STIR, axial fat-saturated T1-W and T2-W images along the medial left thigh, representing a hypertrophied sciatic nerve.

Keywords: Paradoxic sciatic nerve hypertrophy, limb amputation

P - 0160

HYPOTENAR HAMMER SYNDROME

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Abstract

Introduction: Hypotenar hammer syndrome is seen in some occupational groups or some athletes who use objects that can cause trauma to the superficial palmar region of the ulnar artery. After technological develoments MRI is very important to evaluate of wrist pathology as well as angiography. By this case we aim to discuss the imaging findings of hypotenar hammer syndrome.

Case Report: 39 years male cobbler with left wrist swelling, pain and 4-5. th distal finger joint pain. Also he hasn't any chronic disease. Contrast-enhanced MRI was to be compatible that wrist level aneurysmatic dilatation of ulnar artery and superficial palmar segments and on these arteries diffuse wall thickening(reaching 4 mm) and contrast enhancement also loss of signal void due to slow flow or thrombosis of the artery lumen. The findings were thought to be compatible with vasculitis and hypotenar hammer syndrome. The MRI findings were confirmed by left upper extremity CT angiography examination and compatible with hypotenar hammer syndrome.

Discussion: Ulnar artery provides blood flow to most of the fingers. The superficial palmar arch of the hand is generally formed by the ulnar artery and superficial palmar branch of the radial artery. The arc is superficial and easily damaged. Also there are too many variations on this connection. Because of these variations, the clinical findings of hypotenar hammer syndrome are very different. On pysical examination the Allen test can provide important clues. Radiography and doppler US may be helpful for the diagnose. MRI and MR angiography provides a detailed examination of this region.

Keywords: Hypotenar hammer syndome, hand pain, MRI

P - 0161

A HUGE CUTANEOUS DERMATOFIBROMA: MRI FINDINGS

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Abstract

Introduction: Subcutaneous dermatofibroma is a benign tumor usually seen on proximal extremities. It was aimed to present MRI findings of a histologically confirmed dermatofibroma case and emphasize its distinctive features.

Case Report: A 30-year-old woman applied to the dermatology outpatient clinic with a swelling on the superolateral aspect of her thigh that had become more prominent in recent years. Ultrasonography and magnetic resonance imaging (MRI) was planned for the lesion that appeared on physical examination as a firm, solitary tumoral mass, with a regular surface. Ultrasonography revealed a hypoechoic, lobulated solid lesion showing increased vascularization. On MRI, the lesion appeared as a soft tissue mass located in the skin and subcutaneous tissue with a dimension of 5,5x5x3 cm. It was isointense compared to muscles on T1-weighted sequence, slightly hyperintense compared to muscles, but hypointense compared to fat, with a hypointense rim on T2-weighted sequence. After IV contrast infusion it showed an intense heterogenous contrast enhancement with fine aberrant, tortuous vascular structures in the periphery. The lesion was lobulated and well demarcated without any muscle and fascial involvement. Also because the lesion persisted for a long time, the soft tissue mass was considered benign. Punch biopsy was evaluated as a cellular dermatofibroma and excision was suggested.

Conclusion: Dermatofibromas may be mistaken for several benign and malignant masses like especially dermatofibrosarcoma protuberans and also other lesions like malignant fibrous histiocytoma, giant cell tumor, rhabdomyosarcoma and desmoid tumors. Accurate differential diagnosis is made by a immunohistochemical examination while MRI is quite useful in determining the localization and extension to surrounding structures and in discriminating atypical cases.

Keywords: Cutaneous, dermatofibroma, MRI

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FIBROLIPOMATOUS HAMARTOMA OF THE MEDIAN NERVE

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Abstract

Fibrolipomatous hamartoma (FLH) of the nerve or neural fibrolipoma is a rare benign fibrofatty tumor of nerves first described in 1953. Median nerve is most commonly affected nerve and usually affected at the wrist level. Affected nerve is enlarged due to fibrous and fatty infiltration around nerve fascicles into epineurium and perineurium. We report a 28 years old male patient diagnosed with fibrolipomatous hamartoma of median nerve presented with carpal tunnel syndrome findings.

Keywords: Fibrolipomatous hamartoma, median nerve, carpal tunnel syndrome

P - 0163

CARPAL BOSS CASE REPORT

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Abstract

Introduction: Carpal boss is a bone prominence at the dorsal aspect of the 2 nd or 3rd carpometacarpal joint, whose incidence is underestimated, which has been linked to various etiologies, including trauma, os styloideum, osteophyte formation, and partial osseous coalition. From the clinical point of view, the main obstacle to its recognition is the nonspecificity of symptoms, frequently attributed to dorsal ganglion cysts, since both conditions share a similar location on the dorsum of the wrist. On this case we purpose highlight the MRI findings of carpal boss impingement and secondary osteoarthritis.

Case Report: 15 years female with pain and swelling on the dorsal aspect of the right wrist for a few months, without a history of trauma. This pain has been recurrent for a few years and exacerbated by activities that require wrist movements. After routin radiographics, MRI was performed for further assessment, which revealed a dorsal bone process at the quadrangular joint representing fused to the base of the 3rd metacarpal. Minimal bone marrow edema was observed at this abnormal joint level. No ganglion cyst, a common finding in dorsal wrist pain and swelling, was evident. The fused osseous synchondrosis with the adjacent trapezoid bone at its dorsal aspect. Degenerative osteophytic spurs developing at the dorsal aspect of the base of the 3 rd metacarpal were observed and, in conjunction with the os trapezoid at the dorsal aspect of the quadrangular joint, constituted the "carpal boss".

Discussion: Clinical examination and plain radiography will usually reveal the diagnosis. US and CT also may be helpful. MRI may illustrate a variable bone morphology and additional bone and soft tissue pathologies. Bone marrow edema shows a significant correlation with a painful carpal boss. Therefore, MRI may be of additional diagnostic value in patients with persistent pain and preoperatively.

Keywords: Carpal boss, MRI, dorsal hand pain

P - 0164

MEDULLARY LIKE INVASIVE DUCTAL CARCINOMA MIMICKING PHYLLODES TUMOR

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Abstract

Medullary carcinoma of breast arises from supporting stromal cells of the breast. Invasive ductal carcinomas with some, but not all, the histologic features of medullary carcinomas are defined as medullary like invasive carcinomas (MLIDC). MLIDCs have similar radiologic features with phyllodes tumor (PT) and may be misdiagnosed. Herein we present a patient with MLIDC misdiagnosed as PT. A 32-year-old female patient with palpable right breast lesions was evaluated. Ultrasonography, mammography and magnetic resonance imaging (MRI) were applied. MRI revealed that the lesions were hypointense with internal septa in T1 and T2 weighted images. There were intense peripheral and heterogeneous central enhancements with restricted diffusion. Type 3 pharmacokinetic curves were provided. The preliminary diagnosis was PT and she was redirected to surgery. Histopathology was medullary like invasive ductal carcinoma. Histologic appearance of medullary carcinoma can mimic that of poorly differentiated intraductal carcinoma. MLIDC has similar radiologic findings with medullary carcinoma and PT. PTs may have a typical morphology with smooth margins, internal cysts, and septa at MRI. PT shows heterogeneous enhancement due to solid components. Dynamic enhancement patterns can be changed as the tumor has malignant components. In MRI, MLIDCs are mostly oval or lobular shaped with smooth margin. Additionally, peripheral enhancement is detected. In the present case, MRI examination was not useful in lesion discrimination. MLIDCs are rare and have similar imaging findings with PT. However, it is important to aware of the malignant lesions like medullary breast carcinomas and MLIBC.

Keywords: Magnetic resonance imaging, medullary like invasive carcinomas, phyllodes tumor

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METASTASIS OF OVARIAN PAPILLARY SEROUS CARCINOMA TO THE BREAST

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Abstract

Breast metastasis from primary ovarian papillary serous carcinoma is unusual. Clinical history and imaging morphology can help for metastasis vs primary tumor differentiation. Additionally Pax8, is a transcription factor, has high sensitivity in distinguishing metastasis from primary. A 47- year- old female with no familial or personal cancer history was admitted to the general surgery department due to the abdominal pain and breast lump. Dynamic contrast-enhanced breast MRI (DCE-MRI) revealed a complex cystic mass which was located at 7:00 oclock in left breast. The lesion had a large cystic component with a mural nodule of 5 mm in size. Contrast enhancement of the solid component (mural nodule) showed persistent contrast enhancement (type 1). Clinical history and immunohistochemical examinations of the lesion were typical over-induced serous papillary adenocarcinoma metastasis.

Keywords: Dynamic contrast-enhanced breast MRI, breast metastasis, serous papillary adenocarcinoma metastasis, PAX8, ovarian metastasis

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MRI FINDINGS OF A PATIENT WITH AUTOLOGUS FAT GRAFTING TO THE BREAST

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Abstract

Autologous fat grafting is a technique that involves using the patient's own adipose tissue to be applied on a subcutaneous area of the body to increase total fat volume. Autologous fat is a soft-tissue filler that is easy to harvest and does not cause hypersensitivity or foreign-body reactions on implantation. The postoperative complications of autologous fat grafting are similar to other breast augmentation techniques and include fat necrosis, sclerosis, and calcification and breast disfigurement. These patients, should be considered by breast magnetic resonance imaging (MRI) a first line screening tool or at least used when clinical suspicion or radiographic abnormality is indeterminate. Herein we present breast MRI findings of a patient with autologous fat grafting. A 35-year-old female patient with palpable right breast lesions and pain was evaluated. MRI was applied. MRI revealed that there was a global edema, ill defined, heterogeneous enhancing lesions and granulomas. Right breast findings were similar but less prominent. The findings were diagnosed as fat necrosis due to autologous fat grafting; in second look ultrasonography the diagnosis was verified. Autologous fat grafting in the breast is not a simple procedure and should be performed by highly trained and skilled surgeons. The recipient of autologous fat grafting is at risk of calcification, multiple cyst formation, focal breast indurations, pain, infection, and abscesses, abnormal breast discharge, and reactive lymphadenopathy. MRI has been reported to be more capable than mammography of early detection of fat necrosis and clinically non-detectable masses, nodules and other complications.

Keywords: Autologus fat grafting, breast, magnetic resonance imaging

P - 0167

BREAST IMAGING AFTER AUGMENTATION WITH AQUAFILLING

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Abstract

Introduction: Breast augmentation with various injectable materials has been performed for decades. Aquafilling was developed in 2005 as soft tissue filler for facial contouring and recently its use for breast augmentation has started in several countries. Although not approved by FDA the procedure is increasingly applied in Turkey. Thus, familiarity with the specific imaging findings and complications of this entity is important. Hereby we present two cases with a history of breast augmentation with aquafilling.

Case 1: The patient presented to the plastic surgery department of our hospital due to progressive swelling of the right breast. The patient has a history of augmentation mammoplasty with Aquafilling (declared composition: % 98 water, % 2 copoliamid) four years ago. The right breast was twice the size of the left breast in the physical examination. The patient was referred to our radiology department for breast sonography (US). An ill-defined complex cystic structure 11x2 cm in size with multiple and mobile hypoechoic inner foci in the retroglandular area of the right breast was noted. In addition, a similar yet smaller complex cystic structure was noted at the retroglandular location of the left breast. Then, the patient was referred for breast magnetic resonance imaging (MRI) for further investigation. Axial T2-weighted (T2-W) turbo spin echo (TSE), 2 dimensional (2D) fat saturated (fat sat) time of repetition-independent multislice (TRIM), 3D Flash T1-W, and 2D WS-FS short tau inversion recovery (STIR) sequences were obtained with 1.5T MR (Siemens Espree; Siemens Medical Solutions, Erlangen, Germany). No contrast medium was used. Breast MRI revealed hyperintense and heterogenous loculated areas in the T2-W sequences. The region of injection appeared more spheric in the right breast compared to the left breast. Hyperintense injection material was noted among pectoral muscle fibers in the superior parts of both breasts. In addition, Aquafilling material was seen between the left pectoralis major and minor muscles. Migration of the Aquafilling material into the subcutaneous fat tissue in the bilateral middle-inner quadrants was noted. The patient was referred to her clinician for the excision of the material.

Case 2: A 32-year-old female was referred to our radiology department for routine breast US. She had no complaints. The patient had a history of breast augmentation with Aquafilling one year ago. An ill-defined and complex cystic structure approximately 3x1.5 cm in size with multiple mobile hypoechoic foci in the retroglandular area of the right breast was noted. Breast MRI was performed for further evaluation and it revealed hyperintense and heterogenous loculated areas in the T2-W sequences. Also, migration of the Aquafilling material into the subcutaneous fat tissue in the bilateral middle-inner quadrants was noted. The patient was also referred to her clinician for the excision of the material.

Conclusion: In conclusion, there can be severe complications of bilateral breast augmentation with Aquafilling injection. Knowledge of the radiologic characteristics of Aquafilling injected breasts as well as of related complications is very useful to make an accurate diagnosis and suggest proper management.

Keywords: Breast augmentation, aquafilling, sonography, magnetic resonance imaging

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EXTRACAPSULAR INVASION OF LYMPH NODE METASTASIS FROM BREAST CARCINOMA: CAN WE FIND CLUES FROM MRI?

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Abstract

Objective: The aim of the study is to find radiological signs for extracapsular invasion in metastatic axillary lymph nodes in breast carcinoma.

Materials and Methods: Patients with breast magnetic resonance imaging (MRI) and consequently radical mastectomy and axillary lymph node dissection were searched. Among the 51 patients 5 had extracapsular invasion of metastatic lymph node. Non-fat saturated T1, fat saturated T2 and dynamic images were reviewed.

Results: It is found that the heterogeneous fat tissue around involved lymph nodes, ondulated border and striated fat tissue on non-fat saturated T1 images and enhancement of perilymphatic adipose tissue were seen on MRI.

Conclusion: Extra capsular invasion has been blamed for local and distant recurrences in breast carcinoma. Evaluations of lymph nodes are limited on breast MRI. Heterogeneous fat tissue around involved lymph nodes, ondulated border and striated fat tissue on non-fat saturated T1 images and enhancement of perilymphatic adipose tissue are found on patients with extracapsular invasion of metastatic lymph nodes. These findings require further studies on breast MRI in order to have information on extracapsular invasion of metastatic lymph nodes of breast carcinoma.

Keywords: Breast cancer, magnetic resonance imaging, axillary lymph nodes, extracapsular invasion

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LISTERIA RHOMBENCEPHALITIS: MRI FINDINGS

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Abstract

Listeria monocytogenes, the main cause of human listeriosis, is a gram-positive facultatively intracellular bacterium. The main way for infecting people is ingestion of contaminated food. Listeriosis usually affects immunocompromised patients, the elderly, and pregnant women. The infection of healthy individuals is rare. Two forms of the disease are defined: noninvasive gastrointestinal listeriosis (immunocompetent people) and invasive listeriosis (immunocompromised adults). A 40-year-old female, with a 2-week history of headache, vertigo,and nausea, was referred to radiology for MRI scan. On admission to hospital, she was conscious (12 points in GCS). Fever is 39°C. Neck stiffness were stated. Brain CT examination did not show any pathological finding. Lumbar puncture was performed, CSF had inflammatory features (pleocytosis withwith lymphocyte predominance). On MRI there are nonspecific white matter lesions located at brainstem, at midline and on the left. The lesions do not enhance. One day later from the MRI scan, in blood culture, ampicillin-resistant Listeria monocytogenes was identified. Listerial rhombencephalitis accounts of approximately 9% of CNS listeriosis cases. Immunocompetent patients consist of 42–92% of examined patients with listerial rhombencephalitis. Blood cultures are positive in 61% of cases. MRI is capable of detecting parenchymal lesions and usefull in early diagnosis. Patchy signal hyperintensity throughout the medulla and cerebellar peduncles on T2 weighted images, in association with a hypointense dot, and multiple gadolinium-enhanced microabscesses in the rhombencephalon are some imaging characteristics. Listeriosis is a rare cause for rhombencephalitis, and must be kept in mind in the presence of a cerebellar or medullary lesions on MRI.

Keywords: Listeria, rhombencephalitis, MRI

P - 0170

CYSTIC DILATATION OF VENTRICULUS TERMINALIS: CASE REPORT

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Abstract

Objective: Ventriculus terminalis (VT) is a space filled with CSF which is coated by ependymal cells in conus medullaris of medulla spinalis. It is also known as the ependymal cyst or the 5th ventricle. It has been reported in the literature that the dilated VT is seen in 2.6% of pediatric patients under five age, but observed rarely in adults. In this presentation, we aimed to present Magnetic Resonance Imaging (MRI) findings of cystic dilatation of VT in a middle-aged female patient with low back pain complaint.

Materials and Methods: MRI was performed in a 33-year-old female patient with a low back pain complaint.

Results: Thoracolumbar region images were obtained by using routine MRI sequences. On sagittal and axial T2-weighted images, a cystic dilatation with dimensions of 11x8mm which is isointense with CSF in all MRI sequences was detected in the centre of medulla spinalis at conus medullaris (T12-L1) level. Pre-contrast and post-contrast T1-weighted images showed no contrast enhancement in the lesion. The signal intensity of medulla spinalis was observed to be normal, perilesional cord edema was not detected. There was no septation within the detected lesion. There were no additional spinal anomalies such as hydromyelia cavity and vertebral deformities that could accompany the lesion.

Conclusion: Ventriculus terminalis is a cavity covered with ependymal cells in conus medullaris. The VT was described as a normal developmental phenomenon in newborns and pediatric cases; but it is a rare pathology in adults and few cases have been reported in the literature. Coleman et al. (2) reported that there is no pathology associated with VT and they reported also VT has no pathological prognosis in their study on 418 chil-

drens MR images. In the same study, the incidence of childhood VT was found to be 2.6% in children under the age of five. Suh et al. reported that septation, perilesional cord edema, kyphosis and arteriovenous malformation were associated with ventriculus terminalis in a study of 10 adult patients with VT.

In adults, VT is rarely encountered in thoracolomber MR images. Cystic neoplasms located at the same level take place in the differential diagnosis, therefore the image feature and intensity of the lesion must be known. VT cases are usually asymptomatic and the treatment is based on clinical findings. Patients with nonspecific symptoms are followed up by conservative treatment; however, surgical treatment may be required in cases with focal neurological deficits. The cystic dilatation of the VT is seen as an ovoid-shaped, regular wall structure in MR images, with no septation and continuing with canalis centralis. The intensity of fluid within the lesion is hypointense on T1-weighted images, hyperintense on T2-weighted images, and isointense with CSF in all MRI sequences. No contrast enhancement is found within the cyst, on the wall or in the surrounding tissues. As a conclusion, MR imaging is very important in the diagnosis and follow-up of ventriculus terminalis.

Keywords: Ventriculus terminalis, cystic dilatation, conus medullaris, magnetic resonance imaging

P - 0171

BILATERAL FRONTAL POLYMICROGYRIA AND ECTOPIA LENTIS

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Abstract

Polymicrogyria is a form of cortical displasia in which normal gyral pattern is replaced by multiple small gyri, separated by shallow sulci. Focal, diffuse, bilateral and unilateral involvement has been described. Studies to delinate the genetic basis of the finding have become frequent for the past years. Ectopia lentis is defined as displacement or malposition of the lens of the eye. It has been described in genetic syndromes like Marfan or Weill-Marchesani, also isolated forms have been reported. In this report we present a pediatric patient with bilateral frontal polymicrogyria and unilateral ectopia lentis.

Keywords: Polymicrogyria, bilateral frontal polymicrogyria, ectopia lentis

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UNUSUAL MRI FINDINGS IN A GIRL WITH ACUTE HEPATIC ENCEPHALOPATHY: LEPTOMENINGEAL ENHANCEMENT AND CORTICAL LAMINAR NECROSIS

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Abstract

A 3-year-old girl presented with acute signs of hepatic encephalopathy including abdominal pain, nausea, vomiting and impairment of consciousness. Physical examination revealed mild confusion and minimal changes in memory, concentration, and coordination. The laboratory findings indicated elevated alanine aminotransferase (ALT), aspartate aminotransferase (AST), total bilirubin levels (AST: 103 IU/L, reference levels: 6–40 IU/L; ALT: 93 IU/L, reference levels: 7–56 IU/L and total bilirubin: 3 mg/dL, reference levels: 0.1–1 mg/dL). After 12 h of acetaminophen overdoses, magnetic resonance imaging (MRI) showed the widespread edema and minimal diffusion restricted to cortical gray matter of both brain hemispheres. MRI obtained two weeks after treatment demonstrated periventricular hyper-intensities, cortical laminar necrosis and markedly diffusion restrictions. Follow-up MRI with gadolinium also showed the contrast-enhanced areas at the bilateral leptomeningeal regions.

Keywords: Acute hepatic encephalopathy, MRI, Leptomeningeal enhancement, Cortical laminar necrosis

P - 0173

GUILLAIN BARRE SYNDROME AND MRI FINDINGS: CASE REPORT

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Abstract

Introduction: Guillain-Barre Syndrome (GBS), is an acute and inflammatory polyneuropathy, that is usually progressive and ascendant and characterized by symmetrical weakness and areflexia. It emerges usually 2-3 weeks after a non-specific infection such as respiratory tract infection or gastroenteritis and is characterized by ascendant progressive weakness and areflexia. Regarding the laboratory findings, an increase of protein level without an increase of the cell count in the cerebrospinal fluid indicates GBS. GBS is most common between the ages of 4 and 9 years in the pediatric population. In this report, our objective was to present a case with Guillain-Barre Syndrome and its imaging findings.

Case Report: An eight-year-old female patient, who had gastroenteritis approximately for 2 weeks, had pain in legs and could not walk in the last three days, applied to the pediatric outpatient department of our hospital. During the physical examination, bilateral muscle strength was measured as 2-3/5 in the lower extremities and 4/5 in the upper extremities. Deep tendon reflexes were impaired in the upper extremities and could not be examined in the lower extremities. The examination of the cerebrospinal fluid showed an albuminocytologic dissociation. Electromyography showed axonal involvement and acute motor-sensorial polyneuropathy. Clinically GBS was considered and a spinal Magnetic Resonance Imaging (MRI) examination was requested. Spinal MRI revealed thickening in the cauda equina fibers at the level of conus medullaris. Following the administration of the contrast agent, prominent contrast agent uptake was observed in the nerve roots (1a, b, 2a, b). As the findings were consistent with GBS and the patient was hospitalized for follow-up and treatment.

Supplementary treatment was administered for the relief of the symptoms and intravenous immunoglobulin treatment (400 mg/kg/day) was administered for 5 days. On the 5th day of the treatment, the muscle strength became 3-4/5 in the lower and 4-5/5 in the upper extremities and the patient was able to walk. As the general status of the patient gradually improved and the muscle strength became normal, the patient was discharged on the 16th day of the hospitalization. The patient was referred to the physical therapy and rehabilitation program and included in the outpatient follow-up plan for controls. We observed that the symptoms resolved completely at the end of 2.5 months and the patient was able to walk without aid.

Discussion: GBS is an acute, inflammatory and demyelinating disease of the peripheral nerves and nerve roots. GBS was considered as an autoimmune disease, which is characterized by the production of the antibodies against antigenic proteins of the peripheral nerves following the T-cell activation (1). GBS is usually diagnosed during the clinical examination. Spinal MR imaging is useful in the diagnosis of the disease and the exclusion of the additional pathological conditions. In patients with severe back pain, sensory deficit at a certain level or sphincter dysfunction, spinal MRI examination should be urgently performed in order to exclude the compression of the spinal cord. Intracranial complications such as hydrocephaly, pseudotumor cerebri and papilledema may emerge in very rare cases. Computerized Cranial Tomography, Cranial MRI and Orbital MRI may make important contributions to the diagnosis and follow-up of these complications.

Conclusion: Guillain-Barre Syndrome is principally diagnosed with the clinical and laboratory findings. The imaging methods are mostly used for the exclusion of other conditions such as spinal cord compression and transverse myelitis.

Keywords: Guillain-Barre Syndrome, magnetic resonance imaging, peripheral neuropathy

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PETROUS APEX CEPHALOCELE AND EMPTY SELLA COMBINATION: MRI FINDINGS

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Abstract

Petrous apex cephalocele is an asymptomatic rare form of cephalocele eccentrically located on the posterolateral side of the Meckel cave. It is usually seen bilaterally and detected incidentally. There is a slight female predilection. Pathogenesis is not fully understood. Congenital or acquired CSF pulsations may lead to dehiscence in patients with pneumatized petrous apex. Histology may contain all or only one of the meninges layers. Imaging plays an important role in the diagnosis as well as differentiation of other common non-neoplastic cystic lesions of the petrous apex including cholesterol granuloma, mucocele and congenital cholestatoma., and less commonly from petrous apicitis and Meckels Cave schwannoma. Petrous apex cephalocele may be associated with empty sella and Ushers syndrome. Patients may present with headache, dizziness, sensorineural hearing loss, and trigeminal neuralgia. We herein present a left-sided petrous apex cephocele with an empty sella associatiob in a 68-year-old female patient with cerebral MRI, complaining of dizziness.

Keywords: Petrous apex, cephalocele, empty sella

P - 0175

FETAL ATYPICAL TERATOID RHABDOID TUMOUR: A RARE AND FATAL CASE

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Abstract

Congenital intracranial tumors are rare and usually fatal. The incidence of congenital brain tumors has been estimated at 0.5–1.9% of all pediatric tumors. Primary central nervous system atypical rhabdoid/teratoid tumour (ATRT) is a rare and highly malignant tumour that tends to occur in infancy and early childhood. The majority of tumours (approximately two-third) arise in the posterior fossa. The optimal treatment for ATRT remains unclear. Fetal ATRT is quite rare and nearly always fatal.

Keywords: Atypical teratoid/rhabdoid tumour, fetal MRI, fetal brain tumours

P - 0176

IMAGING FINDINGS IN PARTIAL FACIAL DUPLICATION (A RARE DIPROSOPUS): A CASE REPORT AND LITERATURE REVIEW

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Abstract

The craniofacial duplication or diprosopus (Greek; di-, ''two'' + prosopon, ''face''), which is one of the conjoined twinning types defining the duplication of all the facial structures, is a rarely seen malformation. Partial facial duplication defines the spectrum of congenital anomalies that can be symmetrical or asymmetrical and include nose, maxilla, mandible, palate, and tongue. In the present case, as well as nose, also the cerebral frontal lobes and superior sagittal sinus rostral segment were determined to be duplicated. Three anterior cerebral arteries were observed. Corpus callosum agenesis was detected. Computed tomography (CT), magnetic resonance imaging (MRI), MR angiography-venography, and MR tractography were utilized for determining the level of cranial duplications and the accompanying cranial malformations. In the present case report, we aimed to present the partial facial duplication case, which is a rare variant of diprosopus, and to review the literature.

Keywords: Diprosopus, partial facial duplication

P - 0177

MULTIPLE SYSTEM ATROPHY: CLINICAL AND MRI FINDINGS

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Abstract

Multiple system atrophy (MSA) is a sporadic, progressive neurodegenerative disorder of unknown etiology, characterized by various combinations of autonomic, cerebellar, pyramidal and extra pyramidal signs. The annual incidence of MSA is 0.6/ 1,00,000. MSA is a distinct clinic-pathologic entity previously known as olivopontocerebellar atrophy, striatonigral degeneration and Shy-Dragger syndrome are now all named as MSA.Based on the consensus criteria, patients with MSA are classified as MSA-C and MSA-P. MRI plays critical role in early diagnosis. Characteristic findings are hot crossed bun sign, brain stem and cerebellar atrophy, symmetric cerebral atrophy. In our report we present 62-yo male patient with parkinsonian features predominate (MSA-P).

Keywords: Multiple system atrophy, neuroradiology, MRI, parkinson, hot crossed bun

P - 0178

MILLER DIEKER SYNDROME: A RARE NEURODEVELOPMENTAL DISEASE

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Abstract

Miller-Dieker syndrome (MDS) is a rare, devastat-ing neurodevelopmental disease of childhood.This gene micro-deletion syndrome results from a mutation on chromosome 17p 13.3 and is char-acterized by craniofacial abnormalities and with clas-sical lissencephaly (lissencephaly type 1). We report a MDS associated with chorea,consegecious paretns, psychomotor retardation in a 6 years old girl. eneralized agyria, a figure-eight appearance of the brain, a wide and shallow Sylvianfissure, enlarged subarachnoid space, and ventriculomegaly are the main MRI findings in MDS The posterior fossa structures usually look normal.

Keywords: Miller-Dieker syndrome, MRI, brain, lissencephaly type 1

P - 0179

ISOLATED RHOMBENCEPHALOSYNAPSIS WITH MRI AND CLINICAL FINDINGS

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Abstract

Rhombencephalosynapsis (RES) is a rare cerebellar malformation of unknown etiology characterized by vermal agenesis or hypogenesis, fusion of hemispheres and the dentate nuclei. Clinical presentation and prognosis are extremely variable and generally depends one the associated supratentorial anomalies. We report RES diagnosed by magnetic resonance imaging (MRI) in a 1year-old girlborn to consanguineous parents. The child had neuromotor development delay.

Keywords: Rhombencephalosynapsis, brain, MRI

P - 0180

MRI FINDINGS OF POSTERIOR SPINAL NERVE ROOT SHEATH CYSTS AT ALL LEVELS: CASE REPORT

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Abstract

In 1938, Tarlov was first described perineural cysts in sacral spines as an incidental finding at autopsy. Perineural cysts are CSF filled dilatations of the nerve root sheath at the dorsal root ganglion. They can be asymptomatic or cause progressive neurological symptoms including pain, paraesthesia and weakness according to the localization. Generally it is incidental findings observed on MRIs or CT scans. We report MRI findings in a case of a 53-year-old female with tarlov cysts at all spinal levels presented with cervical spine and bilateral upper limb pain.

Keywords: Tarlov cyst, spine, perineural cyst

P - 0181

EXTREME WIDENING VIRCHOW-ROBIN SPACE: ASYMPTOMATIC PATIENT

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Abstract

Virchow-Robin spaces are very well-known radiological entities. They are normally surround the perforating arteries that enter the brain. But, the giant cystic widening of Virchow-Robin spaces is quite rare in asymptomatic patients. We report a patient presenting with giant cystic widening of Virchow-Robin spaces located in both cerebral hemispheres with mild cerebral atrophy.

Keywords: Perivascular space, virchow-robin space, brain MRI

P - 0182

MRI FINDINGS OF MULTIPLE ANOMALIES OF LUMBAL SPINE: CASE REPORT

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Abstract

Diastematomyelia (split cord malformation) is a rare form of spinal dysraphism characterized by a sagittal cleft that splitting the spinal cord, conus medullaris, or filum terminale. There may be other associated abnormalities including tethered cord, which is an abnormal attachment of the spinal cord to the end lower in the lumbar or sacral spinal canal, lipomyelocele and syringomyelia. Lipomyelocele is also one of the most common type of occult spina bifida generally occurs in the lowermost part of the spine and extends to subcutaneous soft tissues posteriorly through a spina bifida defect from spinal cord. Syringomyelia is a fluid-filled cystic cavity inside the spinal cord. In this case, we report MRI findings of a 42-year-old female with diastematomyelia, tethered cord, lipomyelocele and syrinx cavity.

Keywords: Lipomyelocele, diastematomyelia, tethered cord syndrome, spinal dysraphism, syringomyelia, split cord malformation

P – 0183

REVERSE TIGROID PATTERN DUE TO DIFFUSE ENLARGED VIRCHOW - ROBIN SPACES

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Abstract

Tigroid pattern is characterized by the radiating linear hypointensities (spared perivascular white matter) within hyperintense demyelinating periventricular white matter areas on T2-weighted images. It is a classical magnetic resonance imaging finding described in diseases such as metachromatic leukodystrophy, Pelizaeus-Merzbacher disease. Widespread enlarged Virchow - Robin spaces are seen very rarely. In this report, a case with radiating linear hyperintensities due to diffuse enlarged Virchow-Robin spaces within periventricular white matter on T2-weighted images that we defined as reverse tigroid pattern is presented.

Keywords: Tigroid pattern, reverse tigroid pattern, Virchow - Robin spaces, magnetic resonance imaging

P - 0184

BILATERAL THALAMIC INFARCTION DUE TO OCCLUSION OF ARTERY OF PERCHERON ACCOMPANIED BY POSTERIOR CEREBRAL ARTERY OCCLUSION

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Abstract

Introduction: Bilateral thalamic infarction is a rare condition. One of the reasons this situation is the occlusion of Artery of Percheron (AOP), which is variational structure that suppiles bilateral paramedian thalami and rostral midbrain. We presented a bilateral thalamic infarction accompanying the infarction of the posterior cerebral artery supply area.

Case Report: A 49-year-old male patient was brought to the hospital because of seizures. According to the information received from the patients' relatives, his seizures continued for about 45 minutes. In brain CT, hypodense areas were observed on bilateral thalamus. After, in the diffuse MR examination the signal changes were observed in the bilateral thalami and left posterior cerebral artery (PCA) supply area, consistent with acute diffusion restriction. The patient was diagnosed with left PCA and AOP territory infarction. Because the patient was not suitable, angiographic imaging could not performed. A month later control MRI showed chronic stage ischemic changes on this areas.

Conclusion: Bilateral thalamic infarctions are rare condition. The AOP infarction accompanied by the PCA infarct is much less common. AOP occlusion should be considered especially in ischemia where paramedian regions are present. Brain CT, diffusion MRI and if possible angiographic imaging studies should be performed in patients with impaired consciousness. The patients' story, symptoms, and evaluation of imaging findings facilitate diagnosis.

Keywords: Artery of percheron, bilateral thalamic infarct, paramedian thalami, PCA infarct

P - 0185

MRI FINDINGS OF HEMORRAGHIC BRAINSTEM GLIOMA: CASE REPORT

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Abstract

Brain tumors are second most common childhood tumors after leukemia and brainstem gliomas constitues 10 - 20 % of all childhood brain tumors. The incidence in pediatrics is higher than in adults. The most common localization of these tumors is between the aqueduct of Sylvius and the fourth ventricle. Prognosis is usually poor thus accurate diagnosis is important. Brain stem gliomas are classified into four different types: diffuse, focal brainstem glioma, (dorsally) exophytic and cervicomedullary. We here in report MRI findings in a 6-year-old with hemorraghic diffuse brainstem glioma presented with loss of consciousness.

Keywords: Brainstem, glioma, brain tumors, childhood

P - 0186

A CAUSE FOR GRE T2* HYPOINTENSE FOCI ON BRAIN MRI IN CHILDREN: EXTRACORPOREAL MEMBRANE OXYGENATION

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Abstract

Gradient echo (GRE)-T2* hypointense foci on brain MRI are expected to be seen in adults with underlying amyloid angiopathy or hypertension and represent microhaemorrhage. In children, same finding may also occur among recievers of extracorporeal membrane oxygenation (ECMO) treatment. ECMO is a life support technique which is also indicated in cardiac failure following repair of congenital heart defects. Here we present a case of a 5 year old child with tetralogy of Fallot (TOF) who had undergone cardiac repair surgery and afterwards recieved ECMO treatment.

Keywords: GRE, ECMO, MRI, brain

P - 0187

DIFFUSION WEIGHTED MAGNETIC RESONANCE IMAGING IN CEREBRAL FAT EMBOLISM SYNDROME

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Abstract

Fat embolism syndrome (FES) is a serious and life-threatening clinical picture in which respiratory, hematological, neurological, and skin manifestations of fat particles into to the circulatory system for any reason. It is estimated that after long bone fractures, the incidence of FES development is less than 1% and mortality is about 10-20%. The criteria developed by Gurd-Wilson are widely used in FES. According to these criteria, major findings are triad respiratory failure, neurological symptoms and petechiae. As minor findings including tachycardia, fever, jaundice, oliguria-anuria, retinal changes, anemia-thrombocytopenia, elevated sedimentation rate, fat macroglobulinemia. At least two major or at least one major and four minor criteria are required for diagnosis. Neurological findings are nonspecific. It extends into a coma from temporary memory loss. Magnetic resonance imaging (MRI) is the most sensitive imaging method for cerebral embolism in cases with FES. In present case, we are presented diffusion weighted imaging (DWI) MRI findings of a patient with fat embolism syndrome after traumatic femur fracture. Previously healthy, 68-year-old male admitted to emergency services after a trauma. The patient underwent operation after the intertrochanteric fracture was detected in the right femur as a result of the examinations. On the third postoperative day following surgery, MRI examination was performed because of no respond to verbal stimuli and developing tachycardia, tachypnea confusion. DWI was showed multiple hyperintense lesions in sentrum semiovale, and periventricular white matter. The lesions were seen hypointense in ADC map. MRI findings were favored by cerebral fat embolism.

Keywords: Fat embolism syndrome, trauma, MRI

P - 0188

CONGENITAL DERMAL SINUS TRACT: A RARE ENTITY

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Abstract

Congenital dermal sinus (CDS) is an epithelium-lined tract extending from the skin to the deep tissues that results from the incomplete separation of cutaneous and neural ectoderms. The tract may end within the skin layers or adjacent to the neural structures. CDS is most commonly diagnosed during childhood, though adulthood cases have also been reported. A number of pathologies such as tethered cord, bifid lamina, split cord malformation, epidermoid and dermoid cysts, tethered filum terminale, meningomyelocele may accompany CDS. Cervical CDS is the least common type and consist 1% of all dorsal CDS cases. Herein we present MRI findings of an adult CDS patient that presented with dermal ostium at the neck and had incidental stress-induced tremor.

Keywords: Congenital dermal sinus, cervical, magnetic resonance imaging

P - 0189

TRANSIENT SPLENIAL LESION PRESENTING WITH HYPERVENTILATION

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Abstract

Introduction: Transient splenal lesions of the corpus callosum are reversible isolated lesions which may also be associated with mild encephalitis/encephalopathy and are frequently detected during MR imaging (MRI) and may arise due to various etiologies. In this case, a transient splenic lesion arising in association with respiratory alkalosis due to hyperventilation and this case is presented because of rhinovirus-related MERS case.

Case Report: 4-year-old female patient presented to pediatric emergency clinic with vomiting, fever,dizziness and respiratory distress symptoms (tachypnea, abdominal respiration). Other systemic examination findings were normal. The patients routine blood count and biochemical tests were normal, blood gas pH: 7.60, pCO2:11.2, HCO3:18.3, mmol/L BE:-10.5 mmol/L and compatible with respiratuar alkalosis. Blood serological studies were normal and no pathology was detected in EEG. CSF studies were normal and CSF PCR results were negative. In the nasopharyngeal swab, multiplex PCR revealed rhinovirus was detected positive. On cranial MRI, a focal restricting area on DAG sequence, was detected in the splenium of the corpus callosum. The patient was thought to be compatible with viral encephalitis and acyclovir and single dose IVIG treatment were given. On the 7th day of follow-up tachipne was regressed and, also regression of the lesion was seen on the cranial MRI taken on the 10th day of the follow-up.

Conclusion: Transient splenic lesions are not associated with hemispheric disconnection, unlike other splenic lesions of the corpus callosum, and there

are many factors in the etiology including epilepsy and antiepileptic drug interruption, electrolyte imbalance, demyelination, ADEM, PRES, diffuse axonal injury, hypoglycemia and infections. MRI plays an important role in the diagnosis of splenic lesion and in the etiologic diagnosis stage. Prognosis is generally favorable if the lesion is due to epileptic or antiepileptic drug withdrawal, but generally varies depending on the underlying condition.

Keywords: Transient splenial lesion, MRI, encephalitis

P - 0190

TECTAL PLATE CYST MRI FINDINGS

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Abstract

Tectal plate cysts are very rare benign, tumor-like lesions. Asymptomatic patients can be diagnosed incidentally. Increased size may cause obstructive hydrocephalus and associated symptoms. Patients may present with symptoms such as headache, vomiting, diplopia, cognitive impairment, ataxia and urinary incontinence. It can be confused with pineal region tumors. As the resolution of magnetic resonance imaging (MR) devices increases, it is possible to distinguish between tumors. In this case we presented a tectal plate cyst in the adult patient who presented with headache and did not cause hydrocephalus.

Keywords: Tectal plate, pineal region, cyst, hydrocephalus

P - 0191

A RARE CENTRAL NERVOUS SYSTEM NEOPLASIA: DIFFUSE LEPTOMENINGEAL GLIONEURONAL TUMOR

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Abstract

Diffuse leptomeningeal glioneuronal tumor (DLGNT) is a rare central nervous system neoplasia. It occurs predominantly in childhood and young-adult ages. Presenting symptoms such as headaches and seizures are related with hydrocephalus due to obstruction of cerebrospinal fluid (CSF) flow. Irregular leptomeningeal thickening and enhancement, small cysts over the parenchyma surface around basal cisterns and subarachnoid spaces without intraparenchymal mass are the characteristic magnetic resonance imaging (MRI) findings. Irregular and enhancing mass can also be seen in the subarachnoid spaces. Because of the lesion patterns and locations, tuberculous meningitis and leptomeningeal carcinomatosis should be considered in differential diagnosis and absence of any abnormality except high protein levels in CSF analysis is helpful to discriminate. Specific immunohistochemical methods must be performed on the pathologic specimen for the diagnosis of DLGNT. Ventriculoperitoneal shunt placement, surgery, chemotherapy and radiotherapy are helpful in treatment. Here, we aimed to present MRI findings and clinical course of a 35-year-old male patient who was diagnosed with DLGNT.

Keywords: Glioneuronal tumor, leptomeninges, hydrocephalus

P - 0192

EXPANSILE AND DESTRUCTIVE SKULL LESION AND SUNBURST SIGN: PRIMARY OSTEOSARCOMA

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Abstract

Introduction: The primary osteosarcoma of the skull is an extremely rare tumor and the incidence is 1-2% among all skull tumors. The benign and malignant lesions such as eosinophilic granuloma, hemangiopericytoma, metastasis, and other sarcomas should be considered with the primary osteosarcoma in the differential diagnosis of an expansile, destructive skull lesion in a young patient. The sunburst sign as a CT finding may be an important clue to suggest osteosarcoma.

Case Report: A 23-year-old male patient was presented with a rubbery hard swelling of a left temporoparietal region which he first noticed 18 months ago but it has grown rapidly in the last five months. A painless mass fixed to bone approximately 7x5 cm was observed on physical examination. The CT imaging was scheduled for the patient with the normal neurological examination as well routine blood tests.

Discussion: The differential diagnosis of a skull lesion should primarily be made according to the age of the patient. The osteoma is the most common (26%) skull lesion, but eosinophilic granuloma should be considered firstly for an expansile lesion in young patients. In our case, the CT showed numerous, thin, linear calcifications within the skull lesion so-called sunburst sign which is typical for skull hemangioma and osteosarcoma have mostly seen in the long bone metaphysis.

Keywords: Calcarium, osteosarcoma, sunburst sign

P - 0193

ACUTE HYPERAMMONEMIC ENCEPHALOPATHY

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Abstract

Acute hyperammonemic encephalopathy, generally presents with altered mentality, and can even progress to coma state. The most common involving sites are insula, diffuse cerebral cortex, cingulate cortices, and bilateral thalami.

MRI has an important role in diagnosis. A 17-year-old female patient presented nausea, vomiting and lethargy. She had the diagnosis of arginase deficiency. Ammonia level is 302 ug/dL. On MRI, edema is present on cerebral and cerebellar hemispheres. On DWI, diffusion restriction is present at both caudate and lentiform nucleus. On T1WI, lineer hyperintensities belonging to laminer cortical necrosis are detected at cortical surfaces in bilateral frontotemporoparietal lobes. She was diagnosed as acute hyperammonemic encephalopathy by laboratory and imaging findings. Sudden onset drowsiness and seizures are some common signs of the disease. Lated diagnosis and treatment can cause permanent brain injury. Bilateral involvement of the insular cortex and cingulate gyrus was a strikingly common feature, restricted diffusion is seen in insula, cingulate cortex and diffuse cerebral cortex. Cortical laminal necrosis is commonly seen. Thalamic involvement (dorsomedial thalami) is told to be more common than cortical involvement. Plasma ammonia levels and MRI findings are correlated. Ammonia levels are told to correlate with clinical outcome, too. MRI features have only moderate correlation with outcome. Acute hyperammonemic encephalopathy is reversible with prompt and proper diagnosis and treatment. Seeing that, knowing the typical MRI findings and correlating them with laboratory findings is crucial for the patient.

Keywords: Hyperammonemic encephalopathy, MRI, DWI

P - 0194

THE LEPTOMENINGEAL "IVY SIGN" ON FLAIR MR IMAGING IN A CASE WITH MOYAMOYA DISEASE

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Abstract

Introduction: We aimed to present the imaging findings of the Moyamoya disease on the basis of a case got the diagnose with ivy sign on the FLAIR image. Moyamoya disease (MMD) is an idiopathic progressive arteriopathy characterized by stenosis of the terminal segment of (supraclinoid) internal carotid arteries (ICAs) and formation of an abnormal vascular network called 'Moyamoya vessels' at the base of the brain. These Moyamoya vessels are multiple enlarged telangiectatic lenticulostriate, thalamo-perforating, leptomeningeal, dural, and pial arteries develop as compensatory circulation. Moyamoya disease's etiology is unknown some of is seen with some genetic, acquired and environmental factors. When MMD presents in childhood, the initial symptoms are usually ischemic. However in adults intracranial hemorrhage from rupture of the fragile collateral vessels is more common. With high diagnostic accuracy, magnetic resonance (MR) imaging and MR angiography (MRA) are very useful in assessing moyamoya disease.

Case Repor: An 8-year-old boy was referred to our department after choreiform movement intervals. Magnetic resonance imaging of brain revealed hyperintense cerebral sulcus on FLAIR images and then we decided to examine the case with contrast enhanced T1A and MRA images. Leptomeningeal enhancements were seen on contrast-enhanced T1A images. Moyamoya disease was diagnosed with the MRA examination that revealed markedly narrowed bilateral supraclinoid ICAs and widespread lenticolostriate-thalamoperforated collaterals (Moyamoya vessels) on the base of brain.

Conclusion: Moyamoya disease is an idiopathic progressive cerebrovascular disease characterized by narrowing of the distal (supraclinoid) internal carotid artery. DSA, CTA, and MRA show predominantly marked stenosis of both supraclinoid ICAs ("bottle neck" sign). Prominent deep-seated lenticulostriate and thalamoperforator collaterals are present, forming the "puff of smoke" appearance characteristic of moyamoya. And also an "ivy" sign with sulcal hyperintensity from slow flow in leptomeningeal collaterals is sometimes seen on FLAIR and contrast enhaced T1 scans often show leptomeningeal enhacement. These are the characteristic imaging findings of Moyamoya disease.

Keywords: Moyamoya disease, ivy sign, puff of smoke

P - 0195

COMMON BENIGN CHOROID PLEXUS TUMORS

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Abstract

Introduction: Choroid plexus tumors are rare. Choroid plexus papillomas are far more common than carcinomas (ratio of 5:1). In some cases distinction between choroid plexus papillomas and choroid plexus carcinomas may only be made by histologically. Choroid plexus carcinoma is a highly aggressive malignant tumor (WHO grade-III) that usually presents with CSF obstruction. The differential diagnosis includes choroid plexus papilloma (WHO grade-I), meningioma and metastatic papillary neoplasms. In this paper, we describe two cases of choroid plexus tumors to discuss and remember the radiological characteristics.

Case Report:

1st Case: Choroid Plexus Papilloma

2nd Case: Intraventricular Menengioma (we assumed it was plexus carcinoma and frozen examination was malign but final pathology report is atypical menengioma)

Conclusion: Choroid plexus tumors arise from the choroid plexus epithelium in ventricles especially derive from lateral ventricles in children and fourth ventricle in adults. Approximately 80% of choroid plexus carcinomas arise in children. In adults choroid plexus carcinomas are rare. There is currently no accepted treatment protocol for choroid plexus carcinoma. The main treatment option is complete resection of the tumor; however, a gross total resection sometimes may not be possible. Chemotherapy and postsurgical radiotherapy may be considered if the patient is an adult.

Keywords: Choroid plexus, carcinoma, menengioma, papilloma

P - 0196

A CASE OF GASTRIC CANCER MANIFESTING AS A SOLITARY CEREBELLAR METASTASIS

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Abstract

Introduction: Gastric cancer is fourth most common cancer in worldwide. Therewithal gastric cancer is third leading cause of cancer-related mortality. Stomach cancer metastasize most commonly to peritoneum, lymph nodes, liver, lungs and bones. Brain metastasis of gastric cancer is extremely rare with less than 1% frequency. Our aim is to present a rare case of stomach cancer with cerebellum metastasis.

Case Report: A 37-year-old female patient was diagnosed with stomach cancer in 2014 and had an operation. On the follow-up, the patient underwent brain CT due to headache complaint. The brain MR is being taken after the headache of the ongoing patient. CT revealed a decrease in the depth of the cerebellar sulci, an isodense mass lesion in the right cerebellum which is 39x37 mm in length with a peripheral hypodense ring. Then the patient was examined with MRI. MRI showed a mass lesion in right cerebellum which is approximately 38x36 mm in length, heterogenously hyperintense (thought to contain blood-degrading products) in T1-weighted sequences, heterogeneously hyperintense appearance in T2-weighted sequences, heterogeneously enhancing after contrast medium injection. The lesion caused no diffusion restriction.

Discussion: Brain metastasis from gastric cancer is rare. Also solitary brain metastases are even rarer compared to multiple metastasis. The differential diagnosis of intracranial solitary hemorrhagic lesion must include metastases if the patient has a primary tumor history; even if the histologic type of the tumor has low incidence of brain metastases.

Keywords: Gastric cancer, brain metastasis, solitary

P - 0197

A RARE CASE; MRI FINDINGS OF AICARDI SYNDROME

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Abstract

Objective: In this case, we aimed to present the MRI findings of aicardi syndrome.

Materials and Methods: Infantile spasm type seizure was detected in the EEG examination performed in our 10-month-old girl. Chorioretinal lacunae were observed in the optic disc. Brain MRI examination was performed for the diagnosis.

Results: n MRI examination, no corpus callosum was observed, lateral ventricles were wide, contours were curved, and occipitotemporal horns were parallel to each other. The right cerebellar hemispherical anterior was 21x14 mm in size and the left occipital lobe parafalin was 23x17 mm in size, with extraaxial placement and arachnoid cyst compatible lesions. Cystic lesions of 6x5 mm in the right lateral ventricle and 7x5 mm in the fourth ventricle were observed. The retrobulbar area in the right eye had a 5x5 mm sized cystic lesion compatible with the optic nerve coloboma. In both frontal lobes, heterotopes were observed in periventricular and subcortical areas. The case was diagnosed as Aicardi syndrome with clinical and radiological findings.

Conclusion: Three cardinal findings of the disease; corpus callosum agenesis, infantile spasms, chorioretinal lacunations. In addition, major findings include cortical malformations, periventricular and subcortical heterotopia, choroid plexus papillomas, third ventricle or intracranial cysts, optic nerve coloboma. Microphtalmia and other ocular anomalies, vertebral or extremity anomalies, cerebral hemispheric asymmetry, hipsaritmia or burst-suppression in EEG are the supporting findings of the disease. The diagnosis is made by three cardinal findings or two cardinal findings + two major findings or two cardinal findings±major findings+supportive findings.

Keywords: Aicardi sydrome, MRI, chorioretinal lacunae

P - 0198

WERNICKE ENCEPHALOPATHY AFTER SLEEVE GASTRECTOMY: MR IMAGING FINDINGS

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Abstract

Introduction: The number of surgical treatment for obesity has risen in recent years. Bariatric surgeries suh as sleeve gastrectomy and gastric banding are effective for controlling the body weight but they can cause surgical and metabolic complications. Wernicke encephalopathy can occur due to thiamine defficiency after obesity surgery. This metabolic complication presents with confusion, ophtalmoplegia, nystagmus and ataxia. MR imaging is useful in early diagnosis of Wernicke encephalopathy. In this case we present MR imaging of Wernicke encephalopathy, occurs after sleeve gastrectomy and recovery after administration of thiamine.

Case: 19 years old woman who had undergone laparoscopic sleeve gastrectomy surgery 2 months prior to our examination. She was referred for MR imaging because of neurologic symptoms. She had ataxia, disartry, vision problems, difficulty in walking and alter in mental state. On MR imaging symmetrical alterations and diffusion restriction in the basal ganglia are seen. After administration of thiamine her symptoms were disappeared. 2 weeks later MR imaging confirmed again and no definite structural abnormalities or signal changes seen.

Conclusion: Depending on the increase in surgical treatment for obesity, metabolic complications such as Wernicke encephalopaty need to be known and early diagnosed. MR imaging is useful in early diagnosis of acute Wernicke encephalopathy.

Keywords: Wernicke, obesity, sleeve gastrectomy

P - 0199

A RARE CASE: SUBAKUT SKELEROUS PANENSEFALITE (SSPE)

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Abstract

Objective: Subacute sclerosing panencephalitis (SSPE) is a rare neurodegenerative disease caused by measles virus. We aimed to present cranial magnetic resonance (MRI) findings due to its rare nature.

Materials and Methods: A 16-year-old girl was admitted to our hospital with complaints of spasm two years ago. In contrast cranial MRI, several hyperintense foci were detected in T2-weighted and FLAIR-weighted images in bilateral frontal, parietal, and temporal lobe anterior white matter. Contrast and diffusion restriction were not detected. No specific diagnosis could be made for the patient according to MRG findings. A cranial MRI examination was performed 6 months after the onset of akinetic mutism. More pronounced in the frontal lobe bilateral frontal, parietal and temporal lobe common white matter, hyperintense on T2 and FLAIR weighted images, hypointense lesions on T1-weighted images and newly developing atrophy in the brain were detected.

Results: Patient who had positive measles antibody in CSF examination and who supported by MRI findings was diagnosed as SSPE. The patient who started myoclonus and drop attacks and whose clinic became worse was unfortunately died 7 months later.

Conclusion: SSPE is a rare late complication of measles infection. It is most commonly seen between 5 and 15 years. Cranial magnetic resonance (MR) and CT may be normal or have non-specific findings in the early stages of the disease. However, progressive cortical atrophy, gray matter changes with inflammation in the early stages, hyperintense lesions usually occur in the subcortical white matter. Over time, symmetric periventricular white matter changes become more pronounced

Keywords: Subacute sclerosing panencephalitis (SSPE), magnetic resonance

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P - 0200

SPORADIC MENINGIOANGIOMATOSIS: CT AND MRI FINDINGS

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Abstract

Objectives: Meningioangiomatosis is a rare benign hamartomatous lesion involving the leptomeninges and the cerebral cortex. Meningioangiomatosis may occur sporadically, or in association with neurofibromatosis type II in up to 50% of patients. We aimed to present a case of sporadic meningioangiomatosis.

Materials and Methods: A sixteen year-old girl presented with headache and seizure for 3 months. Neurological examination was normal. Electroencephalography recorded epileptiform discharge in left temporal lobe. Computed tomography (CT) and magnetic resonance imaging (MRI) were performed. The diagnosis confirmed by operative and pathological findings.

Results: CT showed cortical calcification and hypodensity of the subcortical white matter around the silvian fissure in the left temporal lobe. At the same localization, MRI showed gyriform enhancement with subcortical edema. There was no mass effect. Restricted diffusion was not observed on diffusion MRI as increased perfusion was not detected on perfusion MR. MR spectroscopy showed no choline peak. The patient underwent left temporal craniotomy and the lesion was resected. Histopathology confirmed the diagnosis of meningioangiomatosis.

Conclusion: Meningioangiomatosis is a rare benign tumor that has not malignant potential. These lesions usually cause refracter epilepsy. Resection is the only curative treatment in 85% of meningioangiomatosis cases. The differential diagnosis includes oligodendroglioma, granulomatous meningitis, meningioma, parasitic disease, and calcified vascular malformation. The radiographic findings of meningioangiomatosis may show a variety of features and recognition of meningioangiomatosis is important for correct treatment.

Keywords: Meningioangiomatosis, MRI, seizure, sporadic

P - 0201

BRAIN MR FINDINGS IN ADULT PATIENT WITH UREMIC ENCEPHALOPATHY: CASE REPORT

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Abstract

Uremic encephalopathy (UE) is a toxic metabolic encephalopathy that develops secondary to uremia. Radiological findings of a uremic encephalopathy case will be presented.

A 68-year-old male with chronic renal insufficiency was admitted to emergency department with deficit in consciousness. Brain CT was performed, and no pathological finding was present. In DWI restricted diffusion was present in bilateral basal ganglia. In addition there is hyperintensity in internal and external capsules, bilateral basal ganglia, excluding the thalamus, and caudate nuclei (lentiform fork sign) on T2WI. Mild contrast enhancement is present on T1WI in defined areas.

UE is a severe toxic metabolic encephalitis that develops secondarily to uremia. MRI is more sensitive in diagnosis, but usually no pathological findings are detected. Abnormal findings are usually bilateral, symmetrical, and they tend to regress after dialysis. Laboratory and clinical correlation is important for diagnosis, along with imaging.

CT typically shows hypodensity in bilateral basal ganglia, and thalamus, secondary to cytotoxic edema; MRI shows hyperintensities in basal ganglia, thalamus, and mesial temporal lobes in the T2WI/FLAIR sequences, secondary to edema. Diffusion restriction is not typical for UE. Hyperintesity seen in the white matter surrounding the basal ganglia, internal, and

external capsules, and medullary laminae (lentiform fork sign) is a typical finding for UE, as in our case.

Keywords: Uremic encephalopathy, lentiform fork sign

P - 0202

A RARE CASE, HALLERVORDEN-SPATZ SYNDROME

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Abstract

Objective: Hallervorden-Spatz syndrome is a collection of symptoms that inherit autosomal recessive pathogenesis, also known as pantothenate kinase-dependent neurodegeneration, with globus pallidus, substantia nigra and nucleus ruberin pigmentary degeneration. In this case, we presented magnetic resonance imaging (MRI) findings of a patient with Hallervorden-Spatz syndrome.

Materials and Methods: We performed a brain MRI examination of a 25-year-old male patient to explain neurological findings such as dystonia, Parkinsonism and tremors in the hands.

Results: MRI showed hypointensity due to iron deposition in the bilateral globus pallidus, hyperintensity due to central gliosis in T2, T2-FLAIR and SWI sequences. Our patient was classified as classical Hallervorden-Spatz syndrome on the basis of the age of onset, clinical evaluation, and the specific pattern demonstrated on MRI.

Conclusion: Pantothenate kinase-2 associated neurodegeneration (PKAN) or Hallervorden-Spatz syndrome (HSS) is a rare autosomal recessive degenerative disorder. In HSS, neurons of the globus pallidus and substantia nigra are affected due to excessive iron deposition. The characteristic MRI findings of bilateral symmetrical hyperintense signals surrounded by hypointensity on T2W images lead to the "eye-of-the-tiger" sign. The surrounding hypointensity is caused by signal loss (susceptibility) from the iron deposition, while the central hyperintensity is due to axonal swelling, formation of spheroids, gliosis, and neuronal loss and degeneration. MRI is the preferred radiological imaging method in patients with Hallervorden-Spatz syndrome and the imaging findings are very typical for this disease.

Keywords: Hallervorden-Spatz, syndrome, MRI, iron

P - 0203

AIDS ASSOCIATED DEMENTIA: A CASE REPORT

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Abstract

Objectives: HIV affects the nervous system producing different clinical manifestations,for which neuropsychological disorders are the most common. We aimed to present the MRI findings of a patient diagnosed with AIDS related dementia with clinical and radiological findings in our 31-year-old HIV-positive patient.

Materials and Methods: A 31-year-old HIV-positive patient presented to hospital with forgetfulness, disorganized behavior and complaints of not walking. On neurological examination, the patient was distracted and the patient was partially co-operative. MRI examination was performed to the patient in terms of differential diagnosis.

Results: MRI examination revealed symmetrical widespread signal increases in white matter in both cerebral hemispheres. In both cerebral hemispheres, atrophy-related enlargement was present in the sulcus. The patient was diagnosed AIDS related dementia with clinical and radiological findings.

Conclusion: AIDS associated dementia complex, is a progressive subcortical dementia, attributed to direct infection of the CNS with HIV. According to histopathologic analysis, patients either have HIV encephalitis, HIV leukoencephalopathy, or both; some authors consider these conditions to be the extremes of a spectrum of HIV-induced disease. On magnetic resonance (MR) images, a diffuse cerebral atrophy with symmetric, patchy or confluent areas of T1 and T2 prolongation are seen within the periventricular and deep white matter. Proton (1H) MR spectroscopy reveals decreased N-acetylaspartate (NAA) and elevated peaks of in choline and myoinositol. HIV encephalopathy does not result in mass effect or enhancement. If either of these findings is present, another diagnosis must be considered.

Keywords: AIDS, dementia, HIV, encephalopathy

P - 0204

HORIZONTAL GAZE PALSY WITH PROGRESSIVE SCOLIOSIS (HGPPS): A CASE REPORT

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Abstract

HGPPS is a rare autosomal recessive congenital anomaly caused by mutation of ROBO3 gene on chromosome 11 and chacterized with abnormal horizontal gaze while normal vertical gaze and kyphoscoliosis. Horizontal gaze requires the action of ipsilateral abducent nerve and contralateral oculomotor nerve and mediated by the abducens nucleus. In this condition, there is congenital absence of the abducens nucleus results in abnormal horizontal gaze. The ROBO3 protein plays a critical role in ensuring that motor and sensory nerve pathways cross over in the brainstem. The cause of progressive scoliosis in HGPPS is unclear. We report a case of a 6-year-old girl who presented with complaints of defective vision in both eyes. On examination, she had restricted abduction in both eyes and lack of conjugate eye movement. Magnetic resonance imaging of the brain and orbit showed deep midline pontin cleft (split pons sign), and a butterfly confugiration of the medulla oblongata which are the MRI findings seen in this disorder. Her axial postura was normal on physical examination but there was mild scoliosis in thoracalomber vertebra on antero-posterior radiography.

Keywords: Horizontal gaze palsy, progressive scoliosis, ROBO3

P - 0205

ABNORMAL DILATATION OF PERIVASCULER SPACES: A CASE REPORT

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Abstract

Perivascular spaces are pia-plied and surround the small perforating artery, small arteries and arterioles that penetrate the brain surface. These spaces are not directly related to the subarachnoid space. These areas, which are normally microscopic, were first described by the German pathologist Rudolf Virchow (1821-1902) and the French anatomist Charles Philippe Robin (1821-1885). T2A axial image are seen as smoothly confined fluid-filled hyperintense cysts less than five mm. It is usually asymptomatic and rarely causes obstructive hydrocephalus due to mass effect. When these spaces reach very large sizes called tumefactive perivascular spaces. Perivascular spaces are located in the lower half of the basal ganglia and around the anterior commissur but cortical areas are generally protected. Three types are defined according to their location. The level of basal ganglia supplied by from the lenticulostriate arteries is called type 1, the gray matter level supplied by the perforated medullary arteries is called type 2, and the found in the middle brain is type 3. Perivascular spaces may be associated with traumatic brain injury, mucopolysaccharidoses and muscular dystrophies. If there is no vascular risk factor in the young patient, it should be considered first. Perivascular spaces may be confused with small vascular disease, demyelinating disease, and postcontrast changes. In this study, we aimed to present the radiological findings of abnormal perivascular spaces in a 23-year-old asymptomatic female patient.

Keywords: Perivascular spaces, Virchow-Robin cysts

P - 0206

HEMIMEGALENCEPHALY: A CASE REPORT

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Abstract

Hemimegaencephaly is a rare hamartomatous malformation that develops during neuronal migration and cellular organization, leading to excessive asymmetry of a cerebral hemisphere. The cause of 0.2% of childhood epilepsy is hemimegaencephaly. Most patients present with focal or generalized infantile spasms. Hemimagalencephaly can lead to developmental retardation and hemiparesis. Ventriculomegaly, abnormal gyrus formation, and colposcopy occur on the affected side. There are three forms: isolated, syndromic or total hemimegalencephaly. Posterior falx midline contralateral displacement, increased signal intensity of white matter, white matter calcifications are additional findings. Early diagnosis is very important, although there is a lot of imaging and pathologic evidence. Misdiagnosis of obstructive hydrocephalus and cerebral neoplasia lead to unnecessary surgery. Hemispherectomy is recommended early in patients with severe epilepsy. In this case report, we aimed to discuss the radiological findings of hemimegalcephaly in 3-year-old girl with epilepsy clinic.

Keywords: Hemimegaencephaly, childhood epilepsy

P - 0207

POST-SHUNTING CALLOSAL CYSTIC DEGENERATION: A CASE REPORT

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Abstract

Introduction: Demonstration of cystic degenerations that may occur in ventriculoperitoneal (V/P) shunt after long-term lateral ventricular dilatation and decompression induced corpus callosum.

Case Report: A 40-year-old male patient underwent V/P shunt due to hydrocephalus 5 years ago was admitted to the neurosurgery polyclinic with headache complaint. Cranial magnetic resonance (MR) imaging of the patient revealed hypointense on T1-weighted image (T1WI), hyperintense on T2-weighted image (T2WI), and cystic formations with no contrast enhancement on post-contrast sections in corpus callosum body section. There were simultaneous intracranial hypotension findings after shunt.

Discussion: Prolonged lateral ventriculomegaly causes stretching and impingement of the corpus callosum against the rigid falx cerebri, resulting in chronic ischemia. Rapid decompression of this long-standing hydrocephalus results in transcallosal demyelination. MR changes of corpus callosum degeneration after shunting are clinically alleviated although they are striking. The asymptomatic nature of these changes is assumed to be due to the relative sparing of the splenium. Recognizing these imaging findings is important to avoid unnecessary interventions to the patient.

Keywords: Corpus callosum, post-shunting degeneration, cranial magnetic resonance

P - 0208

COMBINATION OF MILD ENCEPHALOPATHY WITH A REVERSIBLE SPLENIAL LESION (MERS) AND ENSEPHALITIS AFTER INFLUENZA-INFECTION - A CASE REPORT

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Abstract

Influenza is a common disease induced by a viral pathogen of the upper respiratory tract. Influenza infaction can result central nervous system (CNS) dysfunction and it has been reported worldwide. In patients with decreased consciousness after influenza infection, we should consider various diagnoses, including viral encephalitis, medicationrelated encephalopathy, and MERS. We herein report a case of influenza-associated MERS and encephalitis in a child. An 8-year-old girl was admitted to outer medical center due to a high-grade fever. Antibiotic treatment was started. Three days after the treatment, the patient presented with vomiting, sterotypic movements in the hands, jaw shift, leftward slipping in the eyes and bruising. No specific findings were found in CSF examination and laboratory results, but positive for Influenza A in serology. Brain MRI on admission showed high intensity in the center of the splenium of corpus callosum (SCC) on diffusion imaging. Hypointense lesions were noted on T1WI, hyperintensity on T2W/FLAIR imaging. No contrast enhancement was observed in post-contrast images. Follow-up MRI, there was high signal intensty on bilateral hippocampus and medial parts of temporal lobes (limbic system involement). The findings were evaluated in favor of influenza-associated encephalitis. The lesion of SCC was disappeared on follow-up imaging.

Keywords: Influenza, MERS, encephalitis, MRI.

P - 0209

CENTRAL NERVOUS SYSTEM LYMPHOMA

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Abstract

Primary central nervous system lymphoma is a relatively rare tumor, which covers 2. 5% of all brain tumors and 1% of NHL lymphomas. The incidence is increased immunocompromised patients. Most of them are diffuse large B-cell lymphomas. Terminology is divided into three sub-groups as immunological failure, intravascular lymphoma and dura malt-lymphoma. In epidemiology, it is more frequent at 50 years old and twice as common in men. Masses of different sizes have different clinical presentation. Intracranial pressure increase, focal neurological deficits and seizures may occur. In view, characteristically, T1 is hypointense, T2 iso-hypointense. If there is necrosis, T2A is seen as lesions that cause hyperintense, diffusion restriction in the sequences. Lesions tend to be solitary, and supratentorial white matter, periventricular areas, and corpus callosum involvement are frequent. Vasogenic edema is usually seen. It is important to note that in immunocompromised individuals the appearances tend to be more heterogeneous. We aimed to discuss the radiological features of the central nervous system lymphoma in a 36-year-old male patient.

Keywords: Primer central nervous system lymphoma

P - 0210

AN UNUSUAL COMPLICATION OF AUDITORY BRAINSTEM IMPLANTATION

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Abstract

Auditory brainstem implantation (ABI) is a treatment method used especially in children with cochlear nerve anomalies. In this case report, we present a complication of auditory brainstem implantation which has not been defined in the literature previously. A 2.5-year-old female patient with bilateral incomplete partition type I anomaly, bilateral cochlear hypoplasia-aplasia had ABI. CT images acquired at 1 month after the procedure showed that the electrode was terminated in the 4th ventricle. The patient developed triventricular hydrocephalus after 5 months and A VP shunt catheter was inserted. The patient had follow-up with CT scans intermittently during 8 months. Proggressive edema starting from the periventricular area of the fourth ventricle, extending to the brainstem and cerebellar hemispheres and a cystic lesion in the right cerebellopontine angle was detected. On the MRI examination with necessary precautions, T2A and FLAIR images showed significant edema around the fourth ventricle extending to both cerebellar hemispheres and brainstem, and on post-contrast (gadoterate meglumine, 10 mL) axial T1W images contrast enhancement around the fourth ventricle, surrounding the electrode was revealed. This appearance suggested a reactive inflammation of the ventricle due to migrated electrode, as the patient did not have fever or there is no sign of infection in the patients repeat CSF cultures. In the follow-up CT images of the patient who was under dexamethasone treatment, the edema of the brain stem and cerebellum resolved significantly.

Keywords: Auditory brainstem impantation, MRI

P - 0211

BILATERAL PEDICLE STRESS FRACTURE IN THE LUMBAR SPINE

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Abstract

Introduction: We aimed to present bilateral pedicle stres fracture imaging findings of the L5 vertebra with chronic backpain without trauma or surgical history. Stress fractures occur in normal or abnormal bone when prolonged and repetitive mechanical load exceeds the biological capacity of the bone. Because the pars interarticularis is the weakest part of the neural arch, the stress fractures of the vertebral neural arch usually involve the pars interarticularis. The pedicle is the second weakest part of the vertebrae after the pars interarticularis. However, stres fractures of the pedicle are much less common. These fractures may occur bilateral or unilateral. Bilateral pedicle stress fracture is a rare entity. Few cases have been reported in the literature. Most pedicle stress fractures have been reported in association with previous spine surgery,trauma or stress-related activities such as in athletes.

Case Report: Lumbar spine magnetic resonance imaging (MRI) examination performed to 53-year-old female patient with chronic low back pain. MRI of lumbar spine revealed edema in both pedicles of L5 vertebrae that was seen hypointense on T1W images and hyperintense on STIR sequence. In addition, a hypointense linear line was observed on T1W and STIR images in both pedicles. With suspicion of fracture, lumbar

spine computed tomography (CT) examination was performed. CT examination demonstrated fracture line on both pedicle and the patient was diagnosed as bilateral L5 pedicle stress fracture. Because there are no complications such as spinal stenosis and spondylolisthesis, conservative treatment planned.

Conclusion: The STIR sequence is an important sequence in the lomber vertebra MRI. In the presence of hyperintensity in the pedicle on the STIR sequence stress fracture and accompanying edema should be kept in mind. Similarly, hyperintensity in the pedicle on STIR sequence may be associated with infection, hemangioma, osteoid osteoma, or other bone neoplasms. Untreated stress fractures can lead to nonunion, spondylolisthesis, and spinal stenosis. Early detection and treatment are therefore important.

Keywords: Bilateral, pedicle, stress fracture, lomber spine

P - 0212

EWING SARCOMA PLACED ON CEREBELLAR TENTORIUM

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Abstract

Ewing sarcoma is a small circular cell tumor that creates 6-8% of the primer malign bone tumor appeared mainly on bone and soft tissues and it is mainly observed between 5-25 ages. It can rarely show extra-skeletal placement. Tentorial placement is very rare and it is seen approximately in 0.5%. Extra-skeletal ewing sarcoma is rarely seen and it can be also named as peripheral primitive neuro-acto-dermal tumor (pPNET). Generally it can be placed on posterior fossa as extra-axially and it can elongate to spinal canal. In this proceeding findings of magnetic resonance imaging (MRI) of ewing sarcoma placed on tentorial had been shown.

Keywords: Tentorial ewing sarcoma, MRI, pnet

P - 0213

CORPUS CALLOZUM AGENESIS AND CENTRAL NERVOUS SYSTEM ANOMALIES: HETEROTROPHY, POLYMICROGRY

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Abstract

Corpus callosum is the widest commissure that joins the cerebral hemispheres. The development of the corpus callosum is anterior to posterior, but myelination starts from the splenium part and proceeds anteriorly. They are classified as agenesis, partial agenesis and hypogenesis according to the defects during development. The incidence of corpus callosum agenesis has not been clearly determined since most cases are asymptomatic. The incidence is approximately 1 in 20,000 patients. In males, the rate is two times higher than females. Maternal alcohol use during pregnancy is an important risk factor. In cases with corpus callosum agenesis, many central nervous system anomalies are accompanied. Some of these are hydrocephalus, colpocephaly, holoprosencephaly, polymicrogyri, interhemispheric cyst, intracranial lipoma, Chiari and Dandy-Walker malformations. it causes hippocampus hypoplasis in the limbic system. We aimed to present the radiological findings of interhemispheric cyst, gray matter heterotropy, polymicrogyri associated with corpus callosum agenesis in 38 years-old-male.

Keywords: Polymicrogri, interhemispheric cyst, intracranial lipoma, corpus callosum agenesis

P - 0214

CEREBRAL ASPERGILLOSIS: NEUROIMAGING FEATURES OF THE DEVELOPMENTAL STAGES

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Abstract

Introduction: Cerebral Aspergillosis is a rare infection observed mainly among immunosuppressed patients. It is associated with poor prognosis and high mortality (88-99%). The spread of Aspergillus species in the central nervous system occurs via hematogenous spread from the lungs or direct invasion via the paranasal sinuses. Most common presentation of cerebral aspergillosis is brain abscess but various presentations have been reported. Blood and tissue cultures have low sensitivity for identifying infection, with as many as 90% of cases not confirmed until postmortem examination. We present neuroimaging features of the developmental stages of cerebral aspergillosis.

Case Report: 37-year-old female patient admitted to hospital due to a headache for 2 weeks with nausea, vomit. Soon she developed neutropenic fever and eventually was consulted to hematology department. Blood marrow analyses revealed Acute lymphoblastic leukemia. Serial MR examinations of the brain were made because of confusion and deterioration of symptoms. Detailed MRI findings explained in figures. Findings pointed to Aspergillus abscess. The number of lesions progressed after the following examination. The patient underwent surgery. A well-encapsulated pus pocket was found, and histopathology resulted in the diagnosis of aspergillosis. Despite appropriate anti-fungal treatment, the patient eventually died from cardiac arrest.

Conclusion: This case highlights the importance of the high level of vigilance in detecting the early imaging findings of cerebral aspergillosis, which can be difficult to diagnose clinically. Neuroimaging features with careful observation and detailed history-taking can help to make a final diagnosis.

Keywords: Aspergillosis, cerebral, MRI

P - 0215

METRONIDAZOLE INDUCED ENCEPHALOPATHY

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Abstract

Metronidazole-induced encephalopathy (MIE) is a rare condition and associated with long-term use of high-dose metronidazole. Clinically, it manifests as convulsive seizures, ataxia, dysarthria and confusion. Radiologically, T2A and FLAIR hyperintense signal changes can be seen symmetrically in bilateral dentate nuclei, brain stem, and corpus callosum.

In our case, 38 years old female diagnosed with type 1 DM had suffered from foot trauma 2 months ago and started her treatment due to osteomyelitis developing in calcaneus. Brain MRI was performed on the development of dysarthria and confusion during treatment. Brain MRI revealed that bilateral dentate nucleus hyperintensities on T2W-FLAIR images. When the treatment was questioned, it was learned that a total of 75 gr IV metronidazole was used over a period of 45 days. MIE was considered and metronidazole therapy was terminated. 3 weeks after termination, patients' symptoms were regressed.

Metronidazole is commonly used in the treatment of anaerobic bacteria and protozoan-related infections. Most common side effect on nervous system is peripheral neuropathy, rarely convulsive seizures, ataxia, dysarthria, confusion, and encephalopathy can be seen. Previous cases shown that side effects are related to long-term, high-dose metronidazole usage. The most common finding on brain MRI is high signal intensity in symmetrical bilateral dentate nucleus on T2W/FLAIR images.. Its mechanism and frequency aren't fully known. Canavan disease, MSUD and type 1 glutaric aciduria can cause dentate nucleus hyperintensities but MIE should be regarded in the long-term metronidazole usage.

Keywords: Metronidazole, dentate nucleus, dysarthria

P - 0216

CEREBELLOPONTINE ANGLE EPIDERMOID CARCINOMA: A RARE CASE

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Abstract

Objective: Intracranial epidermoid cysts are congenital lesions and consist 1% of brain tumors. These lesions grow very slowly. It's mostly seen between ages is 20 and 40. They are located in cerebellopontine angle 40-50% of cases and typical imaging features are high signaling in diffusion weighted sequences. These lesions may rarely show epidermoid carcinoma degeneration.

Materials and Methods: A 59-year-old female patient with long-standing headache was referred to our clinic for first imaging CT scan. The suspicious lesion was diagnosed with advanced contrast-enhanced brain MRI and brain diffusion MR imaging.

Results: Brain MRI revealed a 63×30×40 mm lesion appearing hyperintense in T2A, mildly suppressed in FLAIR sequences, showing a heterogenous peripheral rim contrast enhancement after intravenous contrast medium administration. This lesion was also including a 23×12 mm solid nodule with a diffuse homogeneous enhancement at left cerebellopontine angle. Diffusion restriction of the cystic component of the lesion was noted in diffusion-weighted studies. The lesion was applying pressure to fourth ventricle, mesencephalon and pons. The lesion was then surgically removed and pathologically identified as epidermoid carcinoma.

Conclusion: Epidermoid carcinoma is a rare tumor that should be kept in mind in intracranial-extraaxial lesions, especially in the pontocerebellar angle; because the treatment is surgical, radiological diagnosis is of great importance.

Keywords: Cerebellopontine angle, epidermoid carcinoma, epidermoid cyst

P - 0217

BALO'S CONCENTRIC SCLEROSIS: A CASE REPORT

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Abstract

Objective: Balo's concentric sclerosis is a demyelinating disease similar to Multiple Sclerosis (MS). Typically demyelinating areas are seen as concentric lesions (circular) on imaging. This is a rare variant of MS and is often as monophasic type in young people.

Material and Methods: A 24-year-old female patient with acute neurologic findings in our hospital emergency department had a suspicious hypodense lesion in the left periventricular area in the first brain CT scan. Due to suspicion of CVD, firstly diffusion brain MRI was perfomed. After diffusion brain MRI didn't show any diffusion restriction. A contrast enhanced brain MRI was planned.

Results: A lesion of approximately 3 cm in diameter, which appeared as a rounded lesion with alternating layers in the white matter adjacent to body of left lateral ventricle was observed on FLAIR-weighted imaging. In addition, hyperintense signal changes were observed at temporal lobe periventricular white matter and hippocampus in T2-FLAIR sequences. Peripheral rim enhancement was observed at left periventricular area following intravenous contrast matter administration. There was no significant edema in the periphery of the lesion. Balo's concentric sclerosis was considered due to age, characteristic periventricular lesions observed and accompanying white matter lesions.

Conclusion: Typical MRI findings of Balo's Concentric Sclerosis are lesions with concentric rings on T2-weighted images and on contrast enhanced T1-weighted images as target nodules. In some studies these layered-concentric areas are said to represent demyelinating and remyelinating regions. Despite the presence of a single hemispheric lesion, lesions were reported in cerebellum, brain stem, spinal cord, and optic chiasm were reported and clinical findings of these lesions were described. In our case, age, characteristic localization of the lesions observed and accompanying white matter lesions pointed out Balo's concentric sclerosis and it is shown that disease can diagnosed with radiologic imaging.

Keywords: Balo's concentric sclerosis, demyelinating disease, multiple sclerosis

P - 0218

CRANIAL MAGNETIC RESONANCE AND MAGNETIC RESONANCE ANGIOGRAPHY IN MOYAMOYA

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Abstract

Objective: To demonstrate cranial magnetic resonance (MR) and MR angiographic findings of collateral vascular structures observed in moyamoya disease.

Materials and Methods: Cranial MR and MR angiography of an 8-year-old girl who was followed up due to resistant epilepsy revealed marked thinning of the cerebral arteries in the supraclinoid segments in the Wills polygon, fine-tortuous vascular collaterals in the perivascular neighborhoods and bilateral basal ganglia.

Conclusion: Moyamoya disease is an arteriopathy that usually results from bilateral, idiopathic and progressive narrowness or occlusion of the branches of distal supraclinoid internal carotid arteries and the main branches of the Wills polygon. Colleteral vascular structures are usually observed in this disease due to its occlusive nature in main supplier arter.

Moyamoya is a Japanese word that refers the collateral vascular structers resembling cigarette smoke. Two thirds of cases are seen in children and most of these individuals are younger than 10 years. Moyamoya disease is progressive and long-term results are usually poor. In children, the clinic usually shows signs of ischemia.

Keywords: Magnetic resonance angiography, magnetic resonance imaging, moyamoya disease

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P - 0219

A RARE CAUSE OF CEREBELLAR SYNDROME: LANGERHANS CELL HISTIOCYTOSIS

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Abstract

Objective: Langerhans cell histiocytosis (LCH) is a rare multisystemic disease which is characterized by proliferation of myeloid progenitors with altered differentiation program and similar phenotypic features to epidermal dendritic cells termed Langerhans cell. Neurological involvement is observed in 5 to 10% of cases. In this case report we want to present radiological findings of neuro-LCH which is a rare cause of cerebellar syndrome.

Materials and Methods: A 50-year-old man was admitted to the neurology service with a history of gait disturbance, imbalance and dysphagia for 1.5 years. On examination, dysarthria with nasal sound were also noted. All his tests were negative including tumor markers and autoantibodies. It was determined as a cerebellar syndrome. Cranial MRI and thoracoabdominal CT were performed to identify the etiology. Centrilobular nodules and numerous bilateral upper-lobe predominant cysts of varying sizes were detected on chest CT. The costophrenic angles were spared. Hyperintense lesions were depicted in pons, middle cerebellar peduncles and cerebellar white matter on T2W images. Diagnosis of LCH with CNS involvement was made according to imaging findings. Pathological confirmation of the diagnosis was also made by wedge resection of the lung and immunohistochemical examination was performed.

Conclusion: Radiology plays a large role in the diagnosis of patients with LCH. Familiarity with the rare imaging appearances of LCH is crucial for appropriate patient management.

Keywords: Cerebellar syndrome, langerhans cell histiocytosis, MRI

P - 0220

DYKE DAVIDOFF MASSON SYNDROME IN ADULT PATIENT

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Abstract

Dyke davidoff masson syndrome is rare condition. Clinical findings of the syndrome are facial asymmetry, hemiplegia or hemiparesis, mental retardation, sensorineural hearing loss, psychiatric disorders, epilepsy. Radiological findings are cerebral hemiatrophy, unilateral thickening of the skull, extensive widening of paranasal sinuses and increase in air levels. Here we report a case of a 39 years old female patient who has depression and anxiety disorder. Cranial MRI scan shows modarate frontal lobe atrophy in left hemisphere, thickening of the nearby skull and widening of left side of the frontal sinus. All clinical and imaging findings are suggestive for Dyke Davidoff Masson Syndrome.

Keywords: Dyke-Davidoff-Masson sydrome, Neuroradiology, Cerebral hemiatrophy

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P - 0221

SYMPTOMATIC HYPERTROPHIC OLIVARY DEGENERATION SECONDARY TO PONTINE CAVERNOMA

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Abstract

We report a case of unilateral hypertrophic olivary degeneration secondary to pontine cavernoma. The patient was 63-year-old man who had hemorrhage of a cavernous malformation in the pons 17 month ago. He complained rest, postural and kinetic tremor of his left upper extremity. On magnetic resonance imaging (MRI), a cavernous malformation was detected on the right side of pons. The ipsilateral olivary nucleus was

markedly enlarged and T2 weighted axial MRI sequence demonstrated increased signal intensity of the right inferior olivary nucleus.

Hypertrophic olivary degeneration (HOD) is a rare condition, a secondary trans-synaptic degeneration of the inferior olivary nucleus. Disruption of triangle of Guillain-Mollaret (dentato-rubro-olivary tract) by hemorrhage, either due to hypertension, trauma, and surgery or, as in our patient, a vascular malformation, ischemia and demyelination can cause HOD. The dentato-rubro-olivary fibers connect the ipsilateral red nucleus and inferior olive with the contralateral dentate nucleus. HOD is matchless because the degenerating olive initially becomes hypertrophic due to cytoplasmic vacuolation of neurons rather than atrophic. HOD may appear in three patterns depending on the involvement of dentato-rubro-olivary tract: ipsilateral olivary hypertrophy, contralateral olivary hypertrophy and bilateral olivary hypertrophy. The palatal myoclonus is classical symptom but as in our case, dentate-rubral tremor is also seen.

We aim to remember the imaging findings of HOD to prevent inaccurate diagnosis of other pathology.

Keywords: Hypertrophic olivary degeneration, cavernoma, pons

P - 0222

MAGNETIC RESONANS IMAGING AND CT FINDING IN A CASE OF METHYLMALONIC ACIDEMIA

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Abstract

Objectives: Methylmalonic acidemia (MMA) is an inborn disorder of amino acid metabolism that commonly presents with neurologic deficits. CT and MR imaging of the brain typically reveal atrophy, delay in myelination, and abnormalities in the basal ganglia, predominantly in the globi pallidi. Here, we aimed to present CT-MRI finding of a 3 year-old patient with a diagnosis of MMA, with diffuse parenchymal atrophy, ventricular dilatation, and prominent subdural effusion without involvement of globi pallidi or basal ganglia.

Materials and Methods: The conversion of methylmalonyl acid to succinic acid requires an apoenzyme (methylmalonil-CoA mutase) with coenzyme (adenosylcobalamine). Deficiency of these enzymes results in accumulation of methylmalonic acid in patients with MMA. The pathophysiology of brain injury is attributed to competitive inhibition of succinate dehydrogenase (an enzyme essential for mitochondrial aerobic glucose oxidation) by methylmalonic acid accumulation. The basal ganglia, predominantly globi pallidi, are particularly susceptible to mitochondrial dysfunction and are thus the main target for brain damage. Contrary to what is believed, in our case there wasn't involvemenet of globi pallidi.

Conclusion: In MMA symmetrical involvement in the brain and progressive white matter loss can be detected early on CT and MR imaging. Imaging plays an important role in early diagnosis and follow-up. It should be kept in mind that, contrary to what is known, methylmalonic acidemia may not cause globus pallidus involvement.

Keywords: Methymalonic asidemia, MRI, inborn

P - 0223

PHACE SYNDROME: A CASE REPORT

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Abstract

PHACE syndrome is an uncommon disorder of unknown etiology characterized by large segmental hemangiomas of the face and various developmental defects. PHACE is an acronym that refers to a group of abnormal medical findings. People with PHACE syndrome may have Posterior fossa brain malformations, Hemangioma, Arterial lesions (blood vessel anomalies in the head or neck), Cardiac anomalies, and Eye anomalies. Its exact incidence and prevalence are unknown. There are over 300 individual case reports and case series published in the literature. In an analysis of 150 PHACE patients from the PHACE Syndrome International Clinical Registry, the female to male ratio was 4. 2:1. the diagnosis can be made based upon the presence of a facial hemangioma greater than 5 cm in diameter plus one major or two minor criteria. Here we aimed to present a 3 months old female patient with a diagnosis of PHACE syndrome with a facial hemangioma, Dandy-Walker complex and intracranial arterial dolichoectasia.

Keywords: PHACE syndrome, hemangioma, Dandy-Walker complex

P - 0224

CENTRAL NERVOUS SYSTEM TUBERCULOSIS: PARENCHYMAL TUBERCULOSIS

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Abstract

Tuberculosis is a disease caused by *Mycobacterium tuberculosis* and is thought to cause around 8 million deaths worldwide annually. Central nervous system (CNS) involvement of the tuberculosis is an important and serious extrapulmonary spread. Approximately 10% of all patients with tuberculosis have CNS involvement in immunocompromised patients, this rate increases by up to 15%. CNS involvement is a serious life-threatening condition and may mimic many infectious and noninfectious involvements For this reason, familiarity with imaging findings is important for radiologists and infectious disease specialists. Prompt and accurate diagnosis contributes to reducing morbidity and mortality in affected patients. Granulomatous inflammatory reaction can affect meninges, brain parenchyma, cranial nerves, spinal cord, bone structures surrounding brain and spinal cord. Meningitis is the most common manifestation of CNS tuberculosis. Enhancing exudates in basal cisterns are the most common imaging findings and are very specific manifestation of leptomeningeal tuberculosis. The most common lesion in the

parenchymal involvement is tuberculoma and may be solitary, multiple or miliary. Tuberculomas are most commonly seen in the parietal and frontal lobes. Imaging findings depend on whether the tuberculoma is caseating, and if so, whether the center is liquid or solid. We aimed to present the imaging findings of central nervous system involvement of tuberculosis in a patient with myasthenia gravis history and immunosuppressive drug therapy.

Keywords: Tuberculosis, central nervous system, *Mycobacterium Tuberculosis*

P - 0225

DRUG ABUSE ASSOCIATED TRANSIENT SPLENIAL LESION OF CORPUS CALLOSUM: CONVENTIONAL AND DIFFUSION-WEIGHTED MAGNETIC RESONANCE IMAGING FINDINGS WITH A CASE

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Abstract

Introduction: Transient lesions of splenium of the corpus callosum are associated with various entities such as drug use, malignancy, infection, metabolic disorders, and other many entities. It is generally agreed that these callosal lesions with reduced diffusion (low apparent diffusion coefficient [ADC] value) are caused by cytotoxic edema. Therefore, the other name of these lesions is Cytotoxic Lesions of the Corpus Callosum (CLOCCs). Diagnosis would be confusing if there is not enough history from such patients. We would like to discuss Magnetic Resonance Imaging (MRI) findings of cytotoxic lesion of the corpus callosum with a drug abuse case.

Case: A 21-year-old woman who had history of drug abuse applied to our hospital and her main complaints were dysarthria and confusion. No abnormal laboratory findings were detected to explain any metabolic diseases. Magnetic resonance imaging was performed to confirm the diagnosis. On the MRI; there was an abnormal signal area at the splenium of the corpus callosum and this lesion had no mass effect. On the diffusion weighted images there was restricted diffusion at the lesion with low ADC values. On follow-up MRI; the splenium was totally resolved and no abnormalities were detected at diffusion weighted images. We aimed to demonstrate the changes at the lesion of the corpus callosum with follow-up MRI.

Conclusion: Transient focal lesions of splenium of the corpus callosum is a rare condition that may occur in patients with many reasons. In our case the restricted diffusion (low ADC values) representing cytotoxic edema was demonstrated at splenium of the patient's corpus callosum. Radiologist should be familiar to these lesions to prevent unnecessary invasive treatment protocols.

Keywords: Drug abuse, transient splenial lesions, CLOCCs, magnetic resonance imaging (MRI)

P - 0226

A RARE CASE REPORT OF LISSENCEPHALY TYPE II

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Abstract

Lissencephaly defines approximately complete absence of normal gyration and sulcation of the cerebral cortex, and is frequently accompanying by microcephaly. Patients may suffer from developmental delay, intellectual disability, and medically intractable epilepsy. There is two subgroup of Lissencephaly spectrum. The classical form, named as lissencephaly type I, is a primitive neuronal undermigration, apart from the type II. Lissencephaly type II occurs secondary to overmigration resulting in abnormal settlement of the cortical plate. Thus; an extracortical neuroglial layer leads to agyria with or without irregular, "cobblestone", surface of the brain and ventriculomegaly. The lissencephaly-pachygyria spectrum may be associated with varying disease such as Walker-Warburg syndrome, muscle-eye-brain Disease and Fukuyama muscular and cerebral dystrophy.

An 8-year-old female patient's complainning from intractable seizures admitted to our hospital. On MRI; a few poorly formed gyri and a smooth outer surface of frontoparietal cortex observed.

Morphological changes can be evaluated using antenatal USG, computed tomography or MRI. However; most superior modality is MRI examination. On MRI; few shallow sulci and shallow Sylvian fissures, an hour glass appearance may be seen on axial images. Subcortical band heterotopia and markedly thickened cortex is generally noted. The lissencephaly-pachygyria spectrum is usually diffusely and symmetricly affect cortex but only anterior-posterior involvement is can be seen depending the underlying mutations. Enlarged ventricles, hypoplastic anterior corpus callosum and cavum septum pellucidum et vergae are additional features of the lissencephaly-pachygyria spectrum.

In conclusion; lissencephaly is a rarely seen abnormaly and may be accompany with syndromic disorders.

Keywords: Lissencephaly, epilepsy

P - 0227

PETROUS APEX CEPHALOCELE REPRESENTED WITH RHINORRHEA: REPORT OF TWO CASES

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Abstract

Petrous apex cephalocele is herniation of the posterolateral Meckel's cave margin and contents into the petrous apex. Petrous apex cephalo-

cele (PAC) is a rare condition that exact etiology is not known. It is either a congenital or acquired. The theory is that chronically increased intracranial pressure that is transmitted into the Meckel cave could cause PAC. PACs are usually bilateral, and occur more often in women than in men. They are usually incidental but could be rarely symptomatic. Complaints of patients could be headache and rhinorrhea. Magnetic resonance imaging (MRI) depicts a cystic-appearing petrous apex lesion with CSF signal intensity in all MRI sequence and continuous with Meckel's cave. According to bone remodeling or erosion on computed tomography (CT), PACs are characterized into aggressive or non-aggressive.

We report two unusual cases of PAC that were 31 year old and 42 year old female who had intermittent rhinorrhea and headache. Both of them had no operation, trauma or infection. Their neurologic examination had no abnormality. On MRI, bilateral herniation of Meckel cave into petrous apex was depicted. On CT, bony defect in petrous apex was detected in both of case.

Familiarity to imaging features of PAC, especially aggressive ones, could be very important in symptomatic patients in whom surgical intervention could be necessary.

Keywords: Petrous apex cephalocele, rhinorrhea, magnetic resonance imaging

P - 0228

HEMORRHAGIC COLLOID CYST

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Abstract

Colloid cysts are benign cystic lesions with thin walls. These lesions are located in the anterior part of the third ventricle and located near the foramen Monroe. They constitute about 0.5% to 1% of all intracranial tumors. They usually asymptomatic but sometimes grow rapidly, and may be symptomatic such as headache, diplopia, and sixth cranial nerve palsy. Acute hemorrhage in colloid cyst is extremely rare and may present with acute symptoms and even sudden death. Although hemorrhagic changes of colloid cysts can give rise to an acute increase of cyst dimension resulting in an acute and complete obstruction of CSF circulation, the cause of hemorrhage is not known. We report a rare case of a hemorrhagic colloid cyst in a thirty years old male patient with sudden onset headache.

Keywords: Colloid cyst, third ventricule, hemorrhagie

P - 0229

FETAL MRI IN PRENATAL DIAGNOSIS OF CENTRAL NERVOUS SYSTEM ANOMALIES

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Abstract

Objective: Fetal MRI is the main supplementary imaging modality of prenatal ultrasound in diagnosis of central nervous system (CNS) anomalies. With modern fast sequences, motion artefacts are minimized and high resolution of regions like the brain made possible. A combination of prenatal ultrasound and MRI can be used to detect and characterize many primary and secondary CNS abnormalities in the developing fetus. Our aim is to report the fetal MRI findings of CNS anomalies with the current literature knowledge.

Materials and Methods: We retrospectively reviewed fetal MRI findings from October 2016 to November 2017. Six fetuses of six pregnant women (4 singleton, 2 twin pregnancies) were included in this study on the basis of their fetal MRI findings which depicted CNS lesion or abnormality. Hydrocephalus was identified in 2 fetuses, one fetus had evidence of corpus callosum agenesis, one had intracranial hemorrhage, one had Chiari type II malformation and one had Dandy Walker malformation.

Conclusion: Fetal MRI plays an increasingly important role in the prenatal diagnosis of CNS anomalies. For proper interpretation and diagnosis of fetal CNS anomalies, radiologist should be familiar with the normal developing fetal anatomy and limitations of fetal MRI.

Keywords: Anomalies, congenital, MRI

P - 0230

A RARE CASE REPORT: RHOMBENCEPHALOSYNAPSIS

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Abstract

Rhombencephalosynapsis is a cerebellar anomaly characterized by hypogenesis of cerebellar vermis and fusion of the cerebellar hemispheres, the middle cerebellar peduncles, and the dentate nuclei. The vermian maldevelopment which is generally sporadic can be seen as an absence of the anterior vermis or a deficiency of the posterior vermis.

Overall life expantancy could short compared to unaffected people since Rhombencephalosynapsis patients tend to die in childhood or early adult life. Diagnosed Rhombencephalosynapsis in an adult patients is unusual.

A 48-year-old male patient complaining of headache admitted to our outpatient polyclinic. There was no history of known disease. Hypoplasia in the cerebellar tonsils were noted and cerebellar hemispheres were posteroinferiorly fusioned.

Rhombencephalosynapsis has also can see with Gomez-Lopez-Hernandez syndrome and VACTERAL syndrome or with varying abnormalities such as absent olfactory bulbs, dysgenesis of the corpus callosum, absent septum pellucidum and atypical forms of holoprosencephaly.

Severity of rhombencephalosynapsis classified as mild form which is characterized with the partial absence of nodulus, anterior, and pos-

terior vermis; moderate form described as the absence of posterior vermis with some anterior vermis and nodulus present; severe form in which posterior and anterior vermis is absent with some nodulus present.

Affected patients may have severe congenital hydrocephalus, cerebral palsy and mental retardation or may be asymptomatic.

Rhombencephalosynapsis has a typical Magnetic Resonance Imaging appearance (MRI).

Fusion of the cerebellar hemispheres leads to continuous cerebellar folia, flat-based cerebellum without cerebellar vallecula and diamond-shaped fourth ventricle is observed on MRI.

In conclusion; rhombencephalosynapsis may be associated with intellectual deficits thus and ait is important to be familiar with thise rare appearences.

Keywords: Rhombencephalosynapsis, magnetic resonance imaging, brain

P - 0231

VASCULAR INTRACRANIAL HYPERTENSION WITH CHARACTERISTICS MR RESULTS

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Abstract

Objective: Intracranial hypertension is characterized by increased cerebrospinal fluid (CSF) pressure, severe headache, reduction/loss of vision, nausea and vomiting, and many factors play role in etiology. It is divided into two types as vascular and idiopathic. Venous stasis is one of the etiologic factors. Magnetic resonance imaging (MRI) may help identifying the etiology and protecting vision by contributing to early diagnosis.

Materials and Methods: We aimed to present typical findings of vascular intracranial hypertension using brain MRI, CSF flow MRI and brain MRI venography in a 37-year-old woman presenting with paroxysmal headache.

RESULTS: Here we report typical MRI findings of intracranial hypertension characterized by an enlarged subarachnoidal space around the optic nerve, optic nerve tortuosity, posterior scleral flattening and papilledema with protrusion of the optic nerve head, enlarged arachnoid cavities (suprasellar cisterna, Meckel cave enlargement), enlargement of CSF space around cavernous sinus lateral wall and oculomotor nerve, thinned venous sinuses, slit ventricles, caudal extension of cerebellar tonsils, increased skin fat thickness in the head and neck. Due to progression of the symptoms of the patient receiving medical treatment for the history of dural sinus thrombosis and intracranial hypertension, lumboperitoneal shunt was performed for detection of 48 cm H2O CSF pressure in lumbar puncture.

Conclusion: It should be kept in mind that intracranial hypertension may present only with paroxysmal headache as in our case. Secondary radiological findings that may contribute diagnosis should be evaluated carefully. MR imaging may help detection of the etiology, early diagnosis and treatment planning of vascular and idiopathic intracranial hypertension.

Keywords: Intracranial hypertension, optic nerve, headache

P – 0232

VERTEBRAL ARTERY LOOP FORMATION CAUSING RADICULOPATHY

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Abstract

Cervical radiculopathy is an important health issue characterized with a dysfunction of a nerve root of the cervical spine among population. Most commonly, the cause of cervical radiculopathy is cervical disk herniations and/or osteophyte formationCR secondary to compression from anomalous VAs is a rarely seen entity with an incidence of approximately 2. 7% in cadaveric specimens (1). An ectatic VA loop can directly compress the exiting nerve root.

A 45-year-old woman presented with stabbing pain in her neck and upper back above her left shoulder, radiating into both arms. Examination results were normal. Somatosensory evoked potentials showed significantly prolonged latency of the left C4 nerve root. Cervical spine MRI demonstrated tortuous vertebral arteries looping into the C3-C4 neural foramina impinging the left C4 nerve roots.

A 35-years-old male admited to our outpatient clinic with cervical pain. Examination results were normal. On MRI; cervical radiculopathy secondary to direct neural compression from an aberrant loop of the VA at the level of C5-6 is observed.

Symptomatic patients usually present with radicular pain and palsy in the C3 to C6 range.

Vertebral artery loop formation may lead to bony erosions or vertebrobasillar insufficiency. A good initial prognostic sign on MRI is an enlarged neural foramina containing a vascular structure.

In conclusion; this is a very important cause of radiculopathy because of possible negative sequelae if missed on imaging i. e. cervical spine CT. Neurosurgical attempt of discectomy is likely to cause vertebral artery injury.

Keywords: Cervical radiculopathy, vertebral artery, hernia

P - 0233

A RARE CAUSE OF EARLY-ONSET ATAXIA: MRI FINDINGS OF "ARSACS"

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Abstract

Introduction: Inherited ataxias include a heterogenous group of neurodegenerative disorders. Autosomal recessive spastic ataxia of Charlevoix Seguenay (ARSACS) is a complex disorder characterized by spasticity, ataxia, polyneuropathy and amyotrophy of distal muscles. Magnetic resonance imaging (MRI) has a vital role in differential diagnosis. We aimed to emphasize that ARSACS is one of the causes that leads childhood ataxia and tigroid pattern at pontine level is specific.

Case Report: 17 year-old female applied to our hospital with complaints of imbalance and walking difficulty. In the physical examination, spastic paraparesis, bilateral Achilles clonus, patellar clonus and bilateral Babinski reflex positivity were observed. Her medical history revealed a tendency to fall. The patient had consanguineous parents. MRI showed atrophic superior vermis, deepened cerebellar folia and bilateral-symmetrical transvers linear hypointensity on T2- and T2-FLAIR weighted images in the pons. EMG showed signs of polineuropathy. ARSACS was suspected; and the genetic testing is still running.

Conclusion: ARSACS have been identified as a rare cause of early-onset ataxia. Most patients show a typical triad of early-onset cerebellar ataxia, limb spasticity and polineuropathy. A specific pontine tigroid pattern has been described in ARSACS. Other common but less specific findings include cerebellar hemisphere atrophy, inferior vermis and superior spinal cord atrophy, thalamic T2 hyperintensities and corpus callosum thinning. These changes could help diagnose ARSACS earlier in young children, in whom the disease is often mistaken for cerebral palsy. Inherited ataxias include a heterogenous group of neurodegenerative disorders and MRI has a vital role in differential diagnosis.

Keywords: ARSACS, childhood ataxia, magnetic resonance imaging, tigroid pattern

P - 0234

DISSEMINATED OLIGODENDROGLIAL-LIKE LEPTOMENINGEAL TUMOR: A RARE CHILDHOOD TUMOR

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Abstract

Disseminated oligodendroglial-like leptomeningeal tumor is a recently known entity whose radiological characteristics have rarely been discussed before. It should be differentiated clinically and radiographically from granulomatous or infectious conditions such as tuberculous meningitis. The key to the diagnosis, even at an early stage, might be the presence of tiny T2 hyperintense lesions on the surface of the brain or spine. When suspected, a meningeal biopsy should be performed to confirm the diagnostic. A 16-year-old male patient, who was followed-up at the external center with the diagnosis of Neurocysticercosis since 10 years, was referred to our clinic for brain MR imaging because of the newly developed obsessive-compulsive disorder. In this case report, we aimed to present findings of Disseminated oligodendroglial-like leptomeningeal tumor MR imaging.

Keywords: Tumor, leptomeninges, MRI, pediatrics

P - 0235

ACUTE METHANOL INTOXICATION PRESENTED WITH ATYPICAL MRI FINDINGS

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Abstract

Objective: Acute methanol intoxication may cause serious neurological sequelae. Severe metabolic acidosis can cause permanent neurological sequelae such as blindness, or even death. Computed tomography (CT) and magnetic resonance imaging (MRI) may show toxic effects in the brain of the methanol. The most important finding is bilateral putaminal necrosis. Other findings such as subcortical and deep white matter lesions, cerebral and cerebellar cortical lesions, midbrain lesions, cerebral and intraventricular haemorrhage may also be observed.

Materials and Methods: We report brain CT and MRI findings in a 33-year-old male who presented with a sudden loss of vision after drinking methanol in our emergency department.

Results: There was no pathological finding on CT imaging at the time of the admission. Diffusion MR imaging of the patient with severe metabolic acidosis and progressive Glasgow Coma Scale (GCS) regression revealed bilateral putaminal FLAIR signal enhancements with diffuse restriction of subcortical and deep white matter. Symmetrical diffusion restriction was also observed in retrobulbar segments of both optic nerves. The patient was admitted to intensive care unit due to respiratory arrest during follow-up.

Conclusion: In cases of severe methanol intoxication, besides bilateral basal ganglia lesions, diffuse subcortical and deep white matter lesions can also be observed in brain MRI. The amount of metabolic acidosis, cumulated formic acid and prognosis depends on the amount of methanol taken by the patient. Early diagnosis is important for the prognosis. Detection of optic nerve involvement using brain diffusion MRI in cases presenting with sudden visual impairment may provide early diagnosis and treatment.

Keywords: Methanol intoxication, optic nerve, basal ganglia

P - 0236

CHOROID PLEXUS PAPILLOMA PRESENT WITH HIGH PERFUSION

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Abstract

Choroid plexus papillomas benign (WHO grade 1) neuroepithelial intraventricular tumour which can occur in both the paediatric and adult population. The frequent locations are the lateral ventricle in infants and children and the fourth ventricle in adults. Choroid plexus papillomas are isointense on T1-waighted images and iso-hyperintense on T2-waighted images to the cortex and enhanced strongly after contrast administration. Advanced MR imaging techniques such as perfusion-weighted imaging could provide additional information on tumor vascularization that may help in the differential diagnosis. Perfusion maps showed hypoperfusion low values of rCBV generally. Studies reported high perfusion values for choroid plexus carcinoma and low perfusion values for choroid plexus papilloma perspectively. In this rare case we demonstrate choroid plexus papilloma with high perfusion values.

Keywords: Choroid plexus papillomas, choroid plexus carcinoma, rCBV, high perfusion

P - 0237

TENTORIUM CEREBELLI HYPOPLASIA WITH CEREBRAL HERNIATION

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Abstract

Tentorium cerebelli hypoplasia is an uncommon condition and generally is seen with other central nervous system malformations. The cause of this anomaly is unknown. It may be due to perinatal injury or impaired embryological development. In this report, a case with tentorial hypoplasia and cerebral herniation without coexisting anomaly is presented with magnetic resonance imaging findings.

Keywords: Tentorium cerebelli, hypoplasia, herniation, magnetic resonance imaging

P - 0238

SYMMETRICAL T2 HYPERINTENSE SIGNAL OF THE CENTRAL TEGMENTAL TRACT IN AN ADULT PATIENT

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Abstract

The symmetrical T2 hyperintense signal of the central tegmental tract (CTTH) is a rare finding in the pediatric population. In children, this imaging finding can be associated with brain tumors, epilepsy, developmental delay, metabolic disorders and genetic syndromes, hypoxic-ischemic encephalopathy, and epilepsy. Because of this different clinical conditions, some authors also suggest that CTTH might be a physiologic process. To the best of our knowledge, there is no literature data about CTTH in adults. In this report, we aimed to summarize the clinical data of a twenty-year-old woman with a diagnosis of systemic lupus erythematosus with symmetrical CTTH on magnetic resonance imaging.

Keywords: Central segmental hyperintensity, Systemic lupus erythematosus

P - 0239

RADIOLOGICAL SPECTRUM OF IDIOPATHIC INTRACRANIAL HYPERTENSION: A CASE SERIES

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Abstract

Seven patients with suspected intracranial hypertension were evaluated with cranial MRI. All patients were referred for cranial MRI scan with symptom of headache. One of the patients found to had a history of venous sinüs thrombosis. Four patients had papilledema, two with blurry vision. One of the patients had runny nose and suspected for rhinorrhea. Beta-2 transferrin test was positive, hence diagnosed as CSF leak. All of the patients had elevated CSF opening pressures, which were evaluated after MRI scan. Most common findings were enlarged subarachnoid spaces around optic nerves and partial empty sella, seen in 6 of 7 patients. Other common findings were flattening of posterior sclera and arachnoid pits, seen in 4 patients. Slit-like ventricles, enlarged meckel caves were seen in 3; meningocele and optic nerve tortuosity seen in 2; tonsillar ectopy and venous sinüs thrombosis were seen only in one patient. Intracranial hypertension is a clinical syndrome with specific radiological findings. Detection of venous sinüs thrombosis and meningocele with possible CSF leakage are crucial at the time of diagnosis. Radiological signs of intracranial hypertension should be kept in mind in patients with headache.

Keywords: Intracranial hypertension, HRI, headache

P - 0240

PRIMARY CYSTIC CENTRAL NERVOUS SYSTEM LYMPHOMA MIMICKING FUNGAL ABSCESS

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Abstract

Central nervous system lymphomas are relatively uncommon primary brain tumors. Due to their hypercellular nature, they are usually solid, enhancing tumors. CT examinations show hyperdense tumors, whereas MRI demonstrates T2-hypointense tumors with little perilesional edema. Diffusion imaging is helpful in differential diagnosis where lower ADC values are in favor of lymphoma diagnosis. Here we present a 70-year-old lady admitted to hospital with weakness of left leg started one week ago. MRI examination demonstrated a cystic 2 cm mass in right precentral gyrus with solid T2-hypointense wall and prominent perilesional vasogenic edema. Lesion was peripherally enhancing and diffusion imaging showed low ADC values in thick wall of the cystic lesion. MR spectroscopy showed lactate peak with little elevation in Choline. Radiological differential diagnosis was in favor of fungal abscess or a necrotic metastasis. Intraoperative ultrasonography demonstrated precise location of the right frontal mass with semi-solid sonographic echogenicity. Pathological diagnosis of the mass was surprisingly a central nervous system lymphoma. Although primary CNS lymphomas resembles many other pathologies including tumors and abscesses; it's even more rare when they appear as cystic lesions.

Keywords: Lymphoma, CNS, cystic

P - 0241

WALLERIAN DEGENERATION OF MIDDLE CEREBELLAR PEDINCULE

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Abstract

Introduction: Wallerian degeneration is defined as distal axonal injury and antegrade destruction of the myelin sheath secondary to the injury of proximal axon or cell body. High signal abnormalities in white matter and atrophy may be seen at MRI. The most common cause of wallerian degeneration is infarct, but it can be due to many factors such as hemorrhage, trauma and neoplasia. We report a case of Wallerian degeneration in the corticospinal tract and both middle cerebellar peduncles due to pons infarction.

Case Report: A 45-year-old male patient was admitted to our hospital with complaints of hypertension and headache who has Buergers disease in the history. On nonenhanced magnetic resonance (MR) imaging, encephalomalacia was observed at the pons. Hyperintense signal which crossed the descending pyramidal tract in the inferior bulbus and extended to the lateral corticospinal tract, was observed. In both middle cerebellar peduncles, hyperintense signal in T2 AG and FLAIR sequences were observed.

Conclusion: Wallerian degeneration is most commonly seen on the corticospinal tract. In cerebellar peduncles, wallerian degeneration is relatively rare, but the most common part is middle cerebellar peduncles because they are larger than others and are the main component of the pontocerebellar tract.

Keywords: Wallerian degeneration, cerebellum, middle cerebellar peduncle

P - 0242

IMAGING FINDINGS OF WALLENBERG SYNDROME

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Abstract

Wallenberg syndrome is one of the cerebrospinal syndromes that occur due to the infarction of the lateral medulla and cause neurological symptoms. In this case series Magnetic resonance (MR) imaging findings of three patients with Wallenberg syndrome are presented.

Diffusion wieghted MR imaging of three patients with Wallenberg syndrome revealed acute ischemia on the right posterolateral of the bulbus, diffusion restriction at the right cerebellar hemisphere and right posterolateral portion of the bulbus and diffusion restriction at the right half of the bulbus compatible with acute ischemia.

Wallenberg syndrome is one of the brain stem syndromes that occur with the infarction of the lateral medullary.

Keywords: Wallenberg syndrome, bulbus, acute ischaemia, diffusion restriction

P - 0243

A RARE CAUSE OF CAVERNOUS SINUS AND SUPERIOR OPHTALMIC VEIN THROMBOPHLEBITIS: FUNGUS BALL IN SPHENOID SINUS

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Abstract

Cavernous sinüs thrombophelibitis (CST) is a rare disease but it has high potential of morbidity and mortality. Most common cause of CST is paranasal sinusitis, followed by odontogenic and/or otogenic infections. Patients with CST commonly have multiple cranial nerve palsies, headache, fever, periorbital edema, chemosis, proptosis and vision loss. Herewe present a 67 year old lady admitted to hospital with headache, redness in right eye, double vision for the last 10 days. Neurological examination showed right orbital proptosis, chemosis, restricted ocular movements in right, superior and inferior directions. Cranial MRI examination showed asymmetic enlargement and enhancement of right cavernous sinus. There was also dural enhacement through the right temporal lobe. Right superior ophtalmic vein was thickened, tortuose with peripheral edema; post-contrast images showed enhancement through walls of the vein and also filling defect favoring thrombosis. MRI together with CT images showed soft tissue obliteration of right side of sphenoid sinus which is hypointense on

T2 images and showed calcified spots inside in CT images. CT also showed sclerosis of sphenoid sinus walls. Imaging findinds were consistent of right cavernous sinus and superior ophtalmic vein thrombosis with a possible etiology of chronic fungal infection in sphenoid sinus. Patient was treated with steroids and operated afterwards. With endoscopic sphenoidotomy of the spheniod sinus at the affected side, fungal ball was diagnosed and infectious material was cleared from the sinus. Follow-up examinations showed complete resolution of findings together with full recovery of clinical symptoms.

Keywords: Cavenous sinus thrombosis, superior ophtalmic vein, mri, fungus ball

P - 0244

SPONTANEOUS VENTRICULOSTOMY DUE TO A THIRD VENTRICULAR ARACHNOID CYST: A CASE REPORT

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Abstract

Arachnoid cysts (AC) are benign, extra-axial space-occupying developmental lesions that filled with cerebrospinal fluid (CSF). Almost 50% of ACs are located in the middle cranial fossa. Rarely, they can occur within the intraventricular system. Although intraventricular ACs are usually asymptomatic and discovered incidentally, sometimes patients may present with a non-specific headache, seizures and obstructive hydrocephalus symptoms. Surgical intervention is usually needed if hydrocephalus is present. On the other hand, in few cases of chronic obstructive hydrocephalus, spontaneous ventriculostomy may occur. Spontaneous ventriculostomy is a very rare condition that results from spontaneous rupture of ventricular wall connecting the ventricular system to the subarachnoid space mostly seen on the floor of the third ventricle. Herein, we report a case of 49-year-old women who presented with a non-specific headache. Obstructive hydrocephalus which is secondary to third ventricular AC above the superior portion of cerebral aqueduct and also giant multilobulated Virchow-Robin (VR) space causing aqueductal narrowing in the pontomesencephalic region was seen on her MRI. On CSF flow study, there was no aqueductal flow but a CSF flow between the third ventricle and the prepontine cistern was seen. Since she had no history of surgical intervention, it was thought to be a spontaneous ventriculostomy. As far as we know, this is the first reported case of obstructive hydrocephalus due to third ventricular AC and an overlapped midbrain giant VR space which resulting in spontaneous third ventriculostomy.

Keywords: Arachnoid cyst, obstructive hydrocephalus, spontaneous ventriculostomy, CSF flow study, Virchow Robin space

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TRANSMANTLE SIGN: A SPECIFIC FINDING OF FCD TYPE II

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Abstract

Focal cortical dysplasias (FCDs) are the most common cause of epilepsy in children. There are typical findings in MRI dedicated to FCD: cortical thickening, blurring, cortical signal changes, subcortical signal changes, and "transmantle" sign. The transmantle sign is often presented as a focal finding, typically limited to one or several gyri with well-defined epileptic tissue. MRI shows signal abnormality extending from the cortex to the superolateral wall of the lateral ventricle. Histological findings are cortical disorganization, neuronal cytomegaly, balloon cells, indistinct cortical gray matter-white matter junctions, and variable accompanying astrogliosis. MRI is critical to determine the morphological alterations in cortical dysplasia - the placement and full content of the lesion and the correlation of the lesion to the eloquent areas of the brain. Here we present MRI findings of FCD II by reporting 3 patients who shows symptoms of epilepsy or fixed neurologic deficits. One patient has (right parietooccipital), two patients have (left frontal) lobe FCD with gray/white matter blurring on T2 images. Cortical thicknening is well demonstrated with T1-IR images through its high contrast ratio between gray and white matter. Transmantle sign is nicely presented on T2 and T1-IR images.There was no contrast enhancement in the lesions but one of them was observed with DNET. Its crucial to define the exact location of FCD because in many patients, surgical resection of the epileptogenic focus can control the seizures when the location of the lesion is precisely evaluated preoperatively.

Keywords: Focal cortical dysplasias, MRI, Transmantle sign

P - 0246

CEREBELLAR CLEFT

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Abstract

Cerebellar cleft (CC), one of the cerebellar disruptions, had have little pay attention in the literature. There are not consensus of causes and clinical consequences of CC in the literature. Some exogenous (i.e. infections) or intrinsic (i.e. coagulopathies) causes or a complication of extreme prematurity accused on the pathogenesis of cerebellar disruptions. Although the pathogenesis of CC is not clear, some malorientation of cerebellar foliation and irregular gray/white matter junction can be seen on CC and cerebellar hemispheres are asymmetric volumes due to the fact that the affected hemisphere is smaller than contralateral side. Clinical symptoms are highly variable such as truncal ataxia, dysarthria, ocular motor apraxia, intellectual disability, speech impairment, and behavioral changes. CC is diagnosed usually during childhood ages in the literature.

In this present study, we presented a 32-year-old man with speech impairment since his childhood. His right cerebellar hemisphere was smaller than contralateral side and it had linear defect filling with CSF extending from the surface of cerebellar hemisphere to fourth ventricle on MRI. There was not additional supratentorial and contralateral cerebellar hemisphere abnormality. According to this MRI findings CC was diagnosed in this patient.

The cases of CC were generally diagnosed during childhood ages in the literature. However, we presented a case with CC who was diagnosed on

adult age. This shows that CC can be under-recognized until adult age. Because of that, a special care must be given during evaluation of cerebellum on cranial MRI.

Keywords: Cerebellar cleft, adult age,cerebellar disruptions

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CEREBRAL AND CEREBELLAR METASTASES OF SMALL-CELL LUNG CANCER MIMICKING MULTIPLE ISCHAEMIC LESIONS

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Abstract

Objective: Restricted diffusion that is found on typically indicates acute ischaemic stroke. However, restricted diffusion can also occur in other diseases, like metastatic brain tumours, which we describe in this case report.

Materials and Methods: 55-year-old patient who was followed up for small-cell lung cancer was referred to the emergency department due to severe headache and dizziness. Non-contrast brain CT and magnetic resonance diffusion-weighted imaging (DWI) were performed on the patients in terms of differential diagnosis.

Results: Non-contrast brain CT revealed multiple hyperdense lesions in both basal ganglion and cerebral-cerebellar hemispheres. Lesions displayed restricted diffusion on DWI and mimic acute ischemia. Clinical-radiological findings and following the patient, the described lesions were evaluated as hypercellular metastatic focus due to small-cell lung cancer.

Conclusion: Restricted diffusion on DWI is observed primarily in acute or hyperacute ischaemic infarcts, abscesses, and in certain hypercellular brain tumours. Restriction of diffusion that is observed in cerebral metastases could result from a high nuclear-cytoplasmic ratio with relative hypercellularity of cancer cells, liquefactive necrosis, and haemorrhage. A potential relationship between primary tumour cell type and presence of cerebral metastases that are characterised by restricted diffusion has been studied by some authors. Those authors noted that cerebral metastases with restricted diffusion were observed primarily in patients with lung cancer (small-cell and non-small-cell carcinoma) or breast cancer. Moreover, 15 patients with colon cancer and prostate cancer also presented with cerebral metastases that displayed restricted diffusion.

Keywords: Metastases, restricted diffusion, cancer, ischaemic

P - 0248

PERSISTENT TRIGEMINAL ARTERY WITH ANEURYSM

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Abstract

Primitive trigeminal artery (PTA) is the most common anomaly of primitive carotid-basilar anastomosis with an incidence between 0.1% and 0.3% and is related with cerebrovascular anomalies, such as aneurysm. Approximately 14% of patients with a persistent trigeminal artery also have an intracranial aneurysm. In 1950, Sutton was the first to show PTA angiographically.

Giant or large cavernous aneurysms associated with PTA are rare, and treatment strategies differ when compared to large or giant aneurysms without PTA. Therefore; determining the PTA is important.

There are 2 different types (Saltzman type I, Saltzman type II) of PTA. In first type, distal vertebro-basilary arteries are supplied by PTA. The PCOM is absent and the caudal BA is absent or hypoplastic with hypoplastic distal vertebral arteries. In the second type, PTA provides superior cerebellar arteries with the PCAs supplied by the PCOM.

Here we present a 61-year-old woman who has been suffering from thunderclap headache recently. Magnetic resonance imaging (MRI) revealed a tubular signal void lesion near the left cavernous segment of ICA. MR angiography demonstrated a vascular structure extending from the cavernous segment of the left internal carotid artery to basillary artery, which is consistent with persistent trigeminal artery. Furthermore, a tortuosity and dilatation were noted, indicating an aneurysmal filling in PTA. Hence the PCOM was also absent, the findings were compatible with Saltzman type 1.

The presence of PTA should be suspected in cases where Neptune's trident sign or Tau sign is observed in sagittal angiographic images.

Keywords: Persistent trigeminal artery, aneurysm, MRI

P - 0249

CEREBRAL CORTICAL VENOUS THROMBOSIS

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Abstract

Cerebral venous thrombosis (CVT) is a rare thrombotic disorder involving the cerebral veins and dural sinuses. CVT mainly affects adults younger than 50 years and children. People older than 65 years represents only %10 of the patients. %75 of the cases are seen in women. Although presenting symptoms are variable, headache is usually the first symptom, often in combination with focal neurologic deficits and epileptic seizures.

Mortal rate in the acute phase is %5 up to 10, mostly caused by transtentorial herniation due to large parenchymal lesions or by generalized cerebral edema. Patients who survive the acute phase, %70 to 80 recover without functional disability, but chronic symptoms such as headache and fatigue can be seen often.

2 patients who have CVT are presented:

First patient is 40 years old man with MS disease. Intracranial hypotension and headache developed after lumbar puncture. Following this, MRI and MR venography examination demonstrated thrombosis in the Superior Sagital Sinus and cortical veins.

Second patient is 25 years old woman. She admitted with a seizure story starting from the right upper extremity continue as generalized seizure. MR-MR venography was performed upon the suspicious hyperdense appearance revealed at left frontal lobe in CT imaging. At the vertex level, no flow signal was detected in a cortical vein draining in to the superior sagittal sinus (Trollard vein) and thrombus-mediated hypointense signal changes were noted. Edema-related signal increase and microhemorrhage was also noted in the same gyrus in the left frontal region.

Keywords: Trolard vein, lumbar punction, cortical vein trombosis

P - 0250

MULTISYSTEM ATROPHY WITH MSA-P AND MSA-C SUBTYPES: MRI FINDINGS OF TWO CASES

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Abstract

Multisystem Atrophy (MSA) is a relatively rare, sporadic, an adult-onset progressive neurodegenerative disease characterized by parkinsonism, cerebellar ataxia, and autonomic dysfunction clinically. The disease is in the spectrum of synucleinopathies among with Parkinson disease and Lewy body disease. On the basis of symptoms at onset, MSA has been divided into two subtypes: MSA-C (olivopontocerebellar atrophy) with predominance of cerebellar symptoms, MSA-P (striatonigral degeneration) with predominance of Parkinsonism. In both subtypes, autonomic symptoms can be seen. Because of a lack of reliable diagnostic biomarkers, MRI should be performed in patients with suspected MSA. Here, we aimed to present two rare cases of MSA. Our first patient, a 66-year-old woman, presented with imbalance, falling episodes for 5 years progressed within the last 2 years. Additionally, she had amnesia and hypotension for 4 months. MRI showed excessive parenchymal, middle cerebellar peduncular, brainstem, and olivary nucleus atrophy. On T2-weighted images, "hot cross bun sign" defined as cross-like T2 hyperintensity in pons was seen. Clinically, this patient was diagnosed with MSA-C and radiologic findings were supportive. Our second patient was an 82-year-old man who was diagnosed with Parkinson disease two years ago in an outer clinic. He presented with bradykinesia, dysarthria, flexion rigidity, urgency, and incontinence. MRI showed putaminal volume loss, decreased T2 signal within the putamen relative to the globus pallidus. Abnormal bilateral T2 linear rim surrounding the putamen called "putaminal rim sign" was also noted. Clinical and radiological findings of this patient supported the diagnosis of MSA-P.

Keywords: Multisystem atrophy, olivopontocerebellar atrophy, striatonigral degeneration, synucleinopathies, MRI

P - 0251

PARTIAL SPINAL CORD AGENESIS MR IMAGING FINDINGS

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Abstract

Objective: Caudal regression syndrome is a rare neural tube defect that involves spinal and visceral abnormalities ranging from coccygeal agenesis to thoracic vertebral levels. Caudal agenesis is divided into two types. In type 1, the medullar is in a high position and ends suddenly. Although type 2 conus medullaris are observed in a low position. We aimed to present the MRI findings of the spinal cord partial agenesis with caudal regression syndrome.

Materials and Methods: 2.5 year old female patient was suspected of dermal sinus tract and suspected of possible neural tube defects. Spinal cord fibers were not detected from the upper thoracal cavity within the spinal canal at the ultrasound. Spinal cord was observed up to T2-3 vertebra level and no significant spinal cord structure was observed from the distal end of this level. Irregular heterogeneous signal changes in the spinal canal leading to expansions and cystic areas of 8mm in diameter sprouting in the spinal canal were observed at the lumbar region. Results were consistent with Type 1 partial agenesis of spinal cord variant.

Discussion: Caudal regression syndrome is rare. Radiological findings include a sharp ending spinal cord, sacral hypoplasia or aplasia, lumbosacral vertebral dysgenesis or hypogenesis. Often accompanied by spinal anomalies such as vertebral anomalies, congenital cardiovascular anomalies, pulmonary hypoplasia can be accompanied by cases. In our case, there was isolated partial spinal cord agenesis without any of them.

Conclusion: MRI is the gold standard for imaging and surgical planning of spinal cord abnormalities.

Keywords: Spinal cord, spinal cord agenesis, mri

P - 0252

HYDATID CYSTS OF THE HEART AND BRAIN: A CASE REPORT WITH A COMPLICATION

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Abstract

Hydatid cyst is a parasitic disease which is endemic in many parts of the world. It can develop in many organs of the human body and liver is the primary affected organ. Other most common locations are lung, spleen, kidney, bones, brain and heart. After opening of the eggs in the gastrointestinal tract, the larvae migrate to the liver, then they spread to other organs with systemic circulation. Although cardiac involvement is not a very common clinical condition, it may cause life threatening complications such as rupture, tamponade, embolism, anaphylactic shock, infec-

tion, rhythm disorders, acute coronary syndrome and valve dysfunction. The most common locations in the heart are the left ventricular wall, right ventricular wall and interventricular septum, in decreasing order of frequency. In the brain, which is another rarely effected organ, cycts are located in the vascular territory of the middle cerebral artery. Isolated cerebral hydatid cyst is quite rare, it generally coexists with other visceral involvement. Cystic lesions are usually single, round and unilocular. When it reaches large dimensions neurological symptoms due to increased intracranial pressure can be seen.

We present a 26-year-old male patient who had cerebral and cardiac hydatic cyst. Since he did not have neurological symptoms, first cardiac surgery was performed. After cardiac surgery the patient presented with seizure and numbness in the left arm. CT scan showed that hydatid cyst in the right frontal lobe had ruptured. The patient was taken to surgery immediately. Herein we aimed to present a rare case with simultaneous cerebral and cardiac involvement, complicated with cerebral cyst rupture after cardiac surgery.

Keywords: Hydatid cyst, cardiac, interventricular septum, brain, rupture

P - 0253

A RARE DEVELOPMENTAL VENOUS ANOMALY WITH THREE LARGE COLLECTOR VEINS: CASE PRESENTATION, BRAIN MRI, SWI, MRA, DSA FINDINGS WITH DIFFERENTIAL DIAGNOSIS

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Abstract

By definition developmental venous anomalies have one main collector vein but in presented case there are three large collector veins draining into straight sinus, hypoplastic left transverse sinus and vein of Galen, interestingly with a large mass effect. In this presentation by the findings of this rare case of DVA with three collector veins, other vascular anomalies including pial arteriovenous malformation (AVM), dural AVM, cavernoma and capillary telengiectasia will be discussed as differential diagnosis on the basis of crucial imaging findings.

A 19 years old man with a history of blind head trauma will be discussed with his brain CT, MRI, MR Venography (MRV) and Digital Substruction Angiography (DSA) imaging findings.

The lesion had 3 large collector veins which drains into the straight sinus through the ambient cistern, vein of Galen through the left lateral ventricle and left hypoplastic transvers sinus with a transcortical course. On susceptibility Weighted Images (SWI) medullary veins of the DVA had high signal areas and collector veins had low signal areas due to difference of the blood flow. In phase and out of phase images showed no haemorrhage.

The number and size of collector veins may vary due to size of the lesion.

Surgical treatment or other interventions should be avoided. The association of cavernoma with DVA is not rare and if its symptomatic look for a cavernoma and if ıts needed the treatment should be for cavernoma.

Keywords: DVA, developmental venous anomaly, AVM, cavernoma, capillary telangiectasias, MRI

P - 0254

PEDIATRIC ACUTE ENCEPHALOMYELITIS

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Abstract

A 4-year-old female child patient who had a history of a recent acute otitis media treatment presented with high fever, weakness, quadriparesis and rapidly progressive gait disturbance. Ataxic gait and drop, neck stiffness and drowsiness were observed on her physical examination. Contrast-enhanced cranial and whole spinal magnetic resonance imaging (MRI) were performed to demonstrate the pathology. Cranial MRI showed bilateral otomastoiditis and increased signal intensity in basal ganglia, pons and right thalamus without any pathological contrast enhancement. Whole spinal MRI demonstrated partly well-defined, multifocal, integrative, minimally expansile plaque-like lesions within all segments of spinal cord. The lesions showed no contrast enhancement. When all these imaging findings and clinical conditions were taken into consideration; the definitive diagnosis was made as acute encephalomyelitis developed after bilateral severe viral acute otomastoiditis. The patient was admitted to intensive care unit in order to be given antivirals, intravenosus immunoglobulin (IVIG), steroids as an efficient and wide-spectrum treatment. The patient's symptoms were resolved progressively during a period of twenty days. The lesions in the spinal cord showed nearly total regression in all segments on her control MRI. This case emphasizes that clinicians must be aware of the possibility of acute encephalomyelitis associated with viral infections, because early and aggressive treatment (antivirals, IVIG, steroids, plasmapheresis) improve the overall clinical outcome in these cases.

Keywords: Acute encephalomyelitis, pediatric, magnetic resonance imaging

P - 0255

A USEFUL SIGN IN DIAGNOSTIC NEURORADIOLOGY: 'HOT CROSS BUN SIGN' IN A PATIENT WITH CEREBELLAR TYPE OF MULTIPLE SYSTEM ATROPHY (MSA-C)

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Abstract

Multiple system atrophy (MSA) is a sporadic, progressive neurodegenerative disorder characterized clinically by autonomic dysfunction,

Parkinsonism (MSA-P), and cerebellar ataxia (MSA-C) in any combination. The Hot Cross Bun sign (HCB) describes cruciform hyperintensity of the pons on the transverse T2 weighted MR images. The HCB sign has mostly been described in patients with multiple system atrophy of the cerebellar type (MSA-C). Although this sign is not pathognomonic for MSA-C, it has high diagnostic value. Herein, we present a case of MSA-C to emphasize the value of the HCB sign. A 53y female patient presented to neurology clinic with long standing complaints of walking difficulty, slurring, speech and handwriting problems, mild urinary symptoms. On physical examination she had mild limb and gait ataxia. MRI revealed HCB sign associated with pontine atrophy, bilateral symmetrical T2 hyperintensity and atrophy of the middle cerebellar peduncles. CSF study was unremarkable. The genetic testing for ataxia syndromes was negative. MSA-C was finally diagnosed based on appropriate neuroimaging and clinical findings.

Keywords: Multiple System Atrophy (MSA), the Hot-Cross-Bun (HCB) sign, Neurodegenerative Disease

P - 0256

A CASE OF CHILD WITH REVERSIBL EXTRALIMBIC PARANEOPLASTIC ENCEPHALOPATIES

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Abstract

Autoimmune encephalitis has begun to be defined in the medical literature with an entity to characterize with a change in the initial onset of mental status. Although increasingly defined, it is often diagnosed in large tertiary centers. Autoimmune encephalitis is a group of closely related disease processes that overlap with each other and share neuroimaging findings. However, different underlying SSS constructs differ from the specific antibody types that vary according to the underlying system. Antibody attack made by neuronal construction causes localized inflammatory changes. Clinical and imaging findings are specific to the variability of the underlying immune response in the nervous system. Autoimmune encephalitis is the most frequent involvement of the limbic system, depending on the profile of the original antibody, the degree of involvement may vary from neocortex, striatum, posterior fossa, medulla spinalis and peripheral nerves.

Paraneoplastic disorders may present with limbic encephalitis, cerebellar degeneration, and brain stem encephalitis. While most of the cases show classic presentation, in some cases, paraneoplastic neurological findings may involve focal or multifocal cerebral or cerebellar hemispheres other than the limbic system.

Our case was a 2 year old girl who was being treated with the cause of embryonal rhabdomyosarcoma. On the other hand, in the MR examination performed changes, unilateral spreading on the right cortical side and diffusion restriction on the basal ganglions were observed while cortical diffusion restrictions were observed in the left cortical pattern while regression was observed in the follow-up control examinations. At this time, the withdrawing MRA examination was within normal limits. The imaging findings were evaluated in terms of autoimmune paraneoplastic extralimbic encephalitis, as the findings of the patient were atypical and incompatible with other encephalitis findings. After this treatment regression was observed in the findings of the patient. It was presented for the rare occurence.

Keywords: Paraneoplastic ensefalitis, autouimmune encephalitis, limbic ensephalitis

P - 0257

MAGNETIC RESONANCE FINDINGS OF ZELLWEGER SYNDROME

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Abstract

Zellweger syndrome (ZS) as also known cerebrohepatorenal syndrome is the most severe peroxisomal metabolic disease, inherited autosomally recessive. In the case of Zellweger syndrome, especially the central nervous system, the liver and kidneys, and the musculoskeletal systems are affected. In this syndrome, which is very rare, patients are usually diagnosed in the prenatal period and they generally die within the first year of life. Radiological imaging methods have an important role in the clinical diagnosis of ZS but the most valuable imaging method in diagnosis is Magnetic Resonance Imaging (MRI). Herein we present MRI findings of ZS.

A 35-week-old fetus applied to our hospital because of hydrocephalus detected during ultrasonography in the prenatal period. Patient with APGAR score 3 at birth, admitted to a neonatal intensive care unit. Brain MRI was applied due to hydrocephalus. Brain MRI revealed lateral ventricular diameter of 12 mm and third ventricular diameter of 6 mm. Patient with cavum septum pellucidum et vergae variation, MRI showed diffuse intensity increase in white matter in T2W. In addition pachygyria and polymicrogyria patterns was detected. Patient had other components of ZS such as hepatomegaly, hyperechoic kidneys, and the presence of a typical facial appearance. With these findings samples were sent for genetic studies. Radiologic examinations, especially MRI in the diagnosis of ZS have a high importance. ZS should be considered in the differential diagnosis of hydrocephalus.

Key Words: Zellweger syndrome, magnetic resonance imaging, hyrdrocephalus

P - 0258

A RARE CASE: BRAIN INVOLVEMENT OF LIPOID PROTEINOSIS, MRI FINDINGS

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Abstract

Introduction: Lipoid proteinosis (Urbach-Wiethe disease), is a rare, autosomal-recessive, genetic disorder characterized by intracellular deposition of amorphous hyaline material and multisystem involvement. Skin, mucosa, and central nervous system are commonly affected. In this report, we aimed to present cranial MRI findings of characteristic brain involvement in lipoid proteinosis.

Case report: 25-year-old female patient previously diagnosed with lipoid proteinosis was admitted to our hospital due to new lesions on her face. On physical examination, besides hoarseness, she had small papules and atrophic plaques on her face region, elbows and fingers. Contrast enhanced Brain MRI was obtained for possible brain involvement. MRI revealed that, bilateral symmetric markedly T2 hypointense lesions in amigdala. There wasn't any diffusion restriction or contrast enhancement. With these findings lesion sustained as calcification.

Conclusion: Lipoid proteininosis is a multisystemic disease due to ECM1 gene mutation. Central nervous system involvement is seen in 50-75% of cases. The hallmark findings are calcifications, mostly occurring in the amygdala, hippocampus, parahippocampal gyrus, or even the striatum.

Keywords: Lipoid proteinosis, MRI, amigdala, calcification

P - 0259

MRI FINDINGS IN RHOMBENCEPHALOSYNAPSIS, REPORT OF THREE CASES

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Abstract

We presented the imaging findings of three adult cases (a 48-year-old female, 25-year-old, and 39-year-old male patients) and two of them have partial rhombencephalosynapsis. Rhombencephalosynapsis is a rare posterior fossa anomaly which characterized by fusion of the cerebellar hemispheres and the vermian agenesis/hypogenesis. There could be associated supratentorial anomalies. Obersteiner first described the post-mortem findings at 1914 and at 1991, MR imaging findings of three cases have been published. The main pathology is the fusion of cerebellar hemispheres (single-lobed cerebellum) with no cyst or cleft between them. In magnetic resonance imaging, the findings include a narrow fourth ventricle and transversely oriented cerebellar folia. The clinical presentation depends on vermian agenesis/hypogenesis and the degree of cerebellar dysfunction. Since the imaging findings are unique and pathognomonic, the radiologist should be aware of this clinical entity thus may guide clinicians to the appropriate diagnosis.

Keywords: Complete rhombencephalosynapsis, partial rhombencephalosynapsis

P - 0260

INTRACRANIAL SUPRATENTORIAL CHONDROSARCOMA MIMICKING CALCIFIED BRAIN TUMOR: A RARE CASE REPORT

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Abstract

Introduction: Intracranial chondrosarcomas are very rare (0.15%) tumors mostly occurring in the skull base. Primary location supratentorialy has a very low occurrence rate. In our case report, we present Intracranial Supratentorial Chondrosarcoma mimicking calcified brain tumor.

Case Report: A 48-year-old man presented to the emergency department (ED) after a fall and a head trauma. The patient was suffering from a severe headache. Initial Computed tomography (CT) of the head showed 8x4.5x6 cm well-defined lobulated, calcified tumor located in a left frontoparietal region with no extension to the calvarium. The tumor had ring and arc calcifications. The scan also revealed intra end extra axial hemorrhages due to trauma (not shown). Also left to right shift. MRI examination of the patient was performed. The tumor had no diffusion restriction and had peritumoral edema. The patient underwent surgery, histopathology result showed grade I Chondrosarcoma. The patient underwent follow-up, MRI spectroscopy, which revealed residual tumor. The patient received adjuvant radiotherapy and the tumor disappeared.

Conclusion: Intracranial chondrosarcomas are rare but should be considered as a differential diagnosis of intracranial tumors.

Keywords: Intracranial, supratentorial, Chondrosarcoma

P - 0261

TUBER CINEREUM HAMARTOMA: MRI FINDINGS

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Abstract

The aim of this case was to demonstrate the MRI findings of tuber cinereum hamartomas which are benign non-neoplastic gray matter heterotopias. A ten-year-old boy with gelastic seizures was referred to the radiology department for MRI. His cranial MRI examination revealed a solid parasellar lesion of 31x20x20 mm located between the optic chiasm and mammillary bodies. The lesion was diagnosed as tuber cinereum hamartoma since it was isointense to the gray matter and did not show contrast enhancement.

Tuber cinereum hamartomas are benign non-neoplastic gray matter heterotopias which originate between optic chiasm and mammillary bodies. Radiologically they can be sessile or pedinculated. When increased in size they can exert pressure to the third ventricule or optic chiasm. Since they are gray matter heterotopias they are isointense to gray matter on MRI sequences. However they can show high T2 signal due to the increase of the glial cell content. Clinically central puberty precox, gelastic seizures and visual field problems can occur.

Keywords: Tuber cinereum, hamartoma, MRI

P - 0262

A CHILD CASE WITH HEMAFAGOCYTIC LYMPHOHISTYOSIS CNS INVOLVMENT

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Abstract

Hemophagocytic lymphohistiocytosis (HLH) is a multisystemic disease characterized by diffuse infiltration of multiple organs by histiocytes. These include FAQs. It can be seen in adults as well as being more frequently identified in children.

It is a life-threatening condition that occurs as a result of uncontrolled development of hemophagocytic lymphohistiocytosis patients. It is a life threatening condition resulting from response to clinical, histopathological and laboratory studies. Lung fever, hepatosplenomegaly, hematopoiocytosis in various organs (blood cells are swallowed by active macrophages), cytopenia, hypofibrinogen, ferritin, soluble in triglycerides CD25 sCD25, sIL2RA) and an increase in liver enzymes.

HLH can be divided into primer and secondary.

In pediatric HLH patients, the cranial findings may vary widely. Lymphocytosis is seen in the CSF lining as a result of extensive leptomeningeal involvement of lymphocytes and histiocytes in extensive cNS involvement. If parenchymal involvement occurs, perivascular infiltration is observed. In many cases demyelination and tissue necrosis, especially in white matter, can be observed.

We present a 2-year-old male patient with bilateral involvement of white matter, especially temporal lobes, as a result of CNS involvement. In addition, an acute focal parenchymal infarct area was observed in the left upper lateral ventricle.

It was presented for the rare occurence.

Keywords: Hemophagocytic lymphohistiocytosis (HLH), HLH CNS involvement

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P - 0263

PANTOTHENATE KINASE-ASSOCIATED NEURODEGENERATION: MRI FINDINGS

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Abstract

A 19-year-old boy was referred to MRI with mental retardation and sensorial type polyneuropathy. MRI revealed the deposition of iron in red nuclei, substantia nigra and globi pallidi as hypointense signal changes in T2 weighted images. The findings were interpreted as pantothenate kinase-associated neurodegeneration, previously named as Hallervorden-Spatz Syndrome which is an autosomal recessively inherited degeneration with iron deposition in the brain. The eye of the tiger sign demonstrates the central T2 hyperintense spot within the hypointense globi pallidi due to vacualisation and gliosis. Clinically it is presented with spasticity, rigidity, tremors, progressive dementia and cognitive impairment.

Keywords: Pantothenate kinase-associated,neurodegeneration, eye of the tiger, MRI

P - 0264

MOYAMOYA DISEASE: MRI FINDINGS OF A RARE DISORDER

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Abstract

A 29-year-old male patient was referred to the radiology department with follow up of previous watershed infarcts. MRI and MRA revealed multisegmental luminal narrowings in both internal carotid artery and middle cerebral artery with collateral vessels suggestive of Moyamoya disease. Moyamoya disease is a rare idiopathic progressive cerebrovascular disease due to occlusion of the arteries involving the circle of Willis, most commonly the supraclinoid internal carotid arteries. The disease was initially described in Japanese patients as the name refers to "puff of smoke" appearance on angiography.

Keywords: Vasoocclusive disease, Moyamoya, MRA

P - 0265

SPONTANEOUS LUMBAR EPIDURAL HEMORRHAGE MIMICKING EPIDERMOID CYST: CT AND MRI FINDINGS

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Abstract

Objective: Spontaneous spinal epidural hematomas (SSEH) have very rare occurrence. They have an estimated incidence of 0.1 in 100,000 per year. Without any trauma or iatrogenic history the diagnosis can be challenging and called as spontaneous spinal epidural hematoma (SSEH). We aimed to present CT and MRI findings of a lumbar SSEH case, which mimics lumbar epidermoid cyst.

Materials and Methods: 63-year-old female patient admitted to emergency department with new onset lower extremity weakness. Neurological examination confirmed the weakness and patient evaluated with CT and MRI scans.

Result: CT scan revealed that there is mildly hyperdense space occupying lesion in spinal canal between twelfth thoracal and second lumbar

vertebral level. The density of the lesion was not pathognomonic for hematoma and MRI scan was applied. On MRI, there was a T1 hypo-, T2 hyperintense, non enhancing, diffusion restricting space occupying lesion. The diffusion restriction was confounding finding and there wasn't any hemosiderin referring T2 signal void area. The diagnosis discussed between epidural hematoma and epidermoid cyst. After surgery, pathological diagnosis confirmed the epidural hematoma.

Conclusion: Spontaneous spinal epidural hematomas are challenging lesions of spinal imaging especially in acute periods. In our patient surgical preparation tests shows an important finding, which the INR value of the patient, was 4.3. In patients with new onset spinal cord or spinal nerve compression symptoms, and oral anticoagulant usage history, spontaneous spinal epidural hematoma diagnosis should be considered in differential diagnosis.

Keywords: Lumbar epidural hematoma, spine, MRI

P - 0266

A RARE CASE REPORT: PEDIATRIC MULTIFOCAL CEREBRAL GLIOBLASTOMA WITH SPINAL CORD METASTASIS

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Abstract

Objective: Glioblastoma is a World Health Organisition's (WHO) Grade IV tumor which is most common adult primary intracranial neoplasm. The incidence of glioblastoma in pediatric age group is very rare and its considered together with the other paediatric high-grade gliomas in the literature due to this lower incidence. We aimed to present a pediatric case with multifocal cerebral glioblastomas, spinal cord and leptomeningeal involvement.

Materials and Methods: 10 years-old male child presented with headache, paraperasis and weakness on his right arm for two weeks. CT and MRI scan revealed heterogen and moderate enhancing mass lesion which infiltrate left talamus, lentiform nucleus and posterior aspect of insular cortex. After surgery, lesion was defined as glioblastoma. On follow up cranial and spinal MRI scans, cerebral and spinal multifocal new lesions and leptomeningeal involvement were detected.

Result: Multifocal glioblastoma can occur with three ways including cerebrospinal fluid dissemination, spread through the white matter tracks or local metastasis. Multifocal glioblastoma has been shown to have a poorer prognosis than solitary tumors. Multifocal glioblastoma in pediatric age group is rarely reported and management or outcome of these tumors has not studied yet.

Conclusion: Pediatric glioblastoma is very rare primary cranial pediatric tumor. These tumors can be presented with multifocality or spinal metastasis. Full neuroaxis MRI is helpful for detecting the spinal cord involvement and shoud be performed suspected patients which neurological symptoms can not explained by the primary lesion.

Keywords: Multifocal GBM, spine, MRI

P - 0267

PRIMARY UVEAL MALIGNANT MELANOM METASTASIS MRI FINDINGS

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Abstract

Uveal malignant melanoma is the most common primary intraocular malignancy. Tumor incidence increases with age. Less than 1% of patients develop metastatic at the onset but most of the time. Bone metastasis is very rare and is usually seen in advanced disease. Typically, it is lytic metastasis. We aimed to present spinal metastasis findings of rare ocular melanoma in this case. An 86-year-old male patient underwent MRI examination of the cervical vertebrae when he presented with neck pain. In this examination, a mass lesion with destructive, T1A hyperintense, T2A hypointense, heterogeneous contrast material enhancement located on the C1 and C2 vertebra corpus anterior were detected. It was thought that the lesion was compatible with malignant melanoma metastasis because of the hyperintense lesion of T1A and the patient was diagnosed with eye evisceration 6 years ago and was diagnosed with malignant melanoma.

Keywords: Malignant melanoma, metastasis, MRI

P - 0268

CONGENITAL BILATERAL PERISYLVIAN SYNDROME WITH CHILD CASES

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Abstract

Congenital perisylvian syndrome is a rare anomaly that can be diagnosed at birth, during infancy or during late childhood. It is characterized by paralysis (diplegia), tongue, tooth and throat (pseudobulbar paralysis), difficulty speaking, dentition, dysphagia, epilepsy in bilateral muscles of the face.

Polymicrogia is the most common anomaly of cortical development. Small cortical folyls are observed, often accompanied by deterioration in cortical lamination as well as joints. Polymicrogia is most frequently observed in perisilvian areas, although it is present in many localizations.

We present a 16 - year - old male patient who underwent bilateral polymicrogia on MR examination with epilepsy. Congenital muscular dystrophy of the patient was noted but no other CNS findings were observed.

It was presented for the rare occasion.

Keywords: Congenital polymicrogyria, perısylvıan syndrome, bilateral

P - 0269

COGNARD TYPE 4 DURAL AVF: A CASE REPORT WITH CROSS SECTIONAL IMAGING FINDINGS AND DSA CORRELATION

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Abstract

Dural arteriovenous fistulas (dAVF) is an arteriovenous shunts between arterial branches of internal, external carotis or vertebral arteries and dural vessels. They are mostly acquired and most commonly seen in transverse, sigmoid sinuses followed by cavernous sinüs, superior sagittal sinüs, straight sinüs etc. They can present with tinnitus, cranial neuropathies and hemorrhage. Gold standart diagnostic method is Digital Substraction Angiography (DSA). Diagnosis with cross sectional methods is challenging in cases without any sign of hemorrhage.

Here we present a case of 57 year old man admitting to ED with conciousness. Neurological examination showed left sided weakness. CT showed right temporo-parietal 6 cm hematoma with surrounding edema. MRI also showed hematoma with a 6 mm vascular dilatation in contiunity with dilated cortical veins draning into superior sagittal sinüs on T2 and SWI images. CT-angiography also confirmed the dilated cortical drainage veins with ectasy at the periphery of hematoma. Neither nidus nor feding arteries could have been defined on CT and MR angiography images. Patient was referred to DSA with initial diagnosis of Dural AVF with venous ectasia. DSA demostrated dAVF suppllied with branches of right ICA with venous ectasia and cortical venous drainage hence the diagnosis was a Cognard Type IV dAVF.

Cross sectional imaging is essential in patients presenting with acute hematoma. Venous ectasia, nidus, dilated feeder and drainage vessels are important in diagnosis of possible AVF or AVM in patients with intracranial hematoma in locations unusual for hypertensive etiologies.

Keywords: Dural arteriovenous fistula, cognard, MRI, CT angiography

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P - 0270

VON HIPPEL-LINDAU DISEASE WITH ENDOLYHPMHATIC SAC TUMOR AND CEREBELLAR HEMANGIOBLASTOMA

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Abstract

Von Hippel Lindau is an autosomal dominant syndrome with a prevalence of 1/39000 which includes renal cysts and renal cell carcinoma, pheochromocytoma, pancreatic cysts, neuroendocrine tumors, cystadenomas of genital and adnexal organs, retinal angiomas and cerebellar hemangioblastomas. Endolymphatic sac tumors are local invasive epithelial neoplasms arising from the endolymphatic sac located in the temporal bone and can cause hearing loss, ear tinnitus, vertigo, facial nerve dysfunction. The extremely rare endolymphatic sac tumors were associated with von Hippel Lindau syndrome at the end of 1990s. Here, we present endolymphatic sac tumor MR imaging findings in which endolymphatic sac tumor and cerebellar hemangioblastoma were detected in the MR imaging and later renal cell carcinoma was detected and von Hippel Lindau syndrome was diagnosed.

Keywords: Endolymphatic sac, cerebellar hemangioblastomas, Von hippel Lindau disase

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P - 0271

NEUROMYELITIS OPTICA: TWO CASE REPORT

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Abstract

Neuromyelitis optica (NMO) is a rare and serious primary demyelinating disease. It is presented with the demyelination of both optic nerves and spinal cord in acute or recurrent fashion. Distinguishing patients with NMO from neoplasia and other central infectious pathologies is very important in terms of management and early immunosuppressive treatment plan of that disease. Because of the immunosuppressive treatment initiated by early diagnosis, the progressive progression of NMO may stop. Unlike ADEM; demyelinating changes do not return and persist as sequelae in patients with NMO. For this reason, early diagnosis of NMO is very important for the management of the disease. The role of radiological evaluation in diagnose of early stage is high. We also aimed to present both clinical and imaging findings of two patients diagnosed with NMO in our clinic.

Keywords: Neuromyelitis optica, MRI, demyelinating disease

P - 0272

TUMEFACTIVE PERIVASCULAR SPACE

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Abstract

Perivascular spaces are small cystic structures in the brain. They are about 1-2 mm in size. When enlarged termed as giant tumefactive perivascular space (GTPVS), which can cause mass effect upon the surrounding structures. Depend on location they can cause specific clinical manifestations. The most common symptom is headache, and other symptoms include dizziness, dementia, visual changes, syncope, seizure, stroke, poor balance, memory problems, and poor concentration.

They can be mistaken such as cystic neoplasms, nonneoplastic neuroepithelial cysts, ventricular diverticula, cystic infarction parasitic infections, or mucopolysaccharidosis.

We report a woman, 46 years old; which were initialy mistaken for cystic neoplasm. Brain MRI showed clustered cystic areas in right mesencephalothalamic region that doesn't cause hydrocephalus.

GTPVS can be misinterpreted as other pathologic processes, most often a cystic neoplasm. GTPVS must be considered when a lesion is round or oval, single or multilocular lesions that are isointense relative to CSF regardless of imaging sequences and do not enhance.

Keywords: Giant tumefactive perivascular space, cystic neoplasm

P - 0273

CONGENITAL MUSCULAR DYSTROPHY

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Abstract

Congenital muscular dystrophies (CMD) are heterogenous group of autosomal recessive myopathies presenting at birth with hypotonia, delayed motor development and early onset of progressive muscle weakness, confirmed with a dystrophic pattern on muscle biopsy. Best diagnostic clue is Cobblestone brain and Z shaped brainstem in hypotonic infant. Myelination defects, hypoplastic vermis, ventriculomegaly and dysgenesis of the corpus callosum may be seen. We aimed to demonstrate kranial MRI findings in our patient.

Keywords: Congenital muscular dystrophy, myelination defects, hypotonic infant

P - 0274

MULTINODULAR VACUOLATING NEURONAL TUMOR (MVNT): A CASE REPORT

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Abstract

Multinodular vacuolating neuronal tumor (MVNT) was first described in 2013 as a seizure-related benign lesion with characteristic histopathological features.

Until the revision of WHOs most recent revision in central nervous system tumors (2016), it remains unclear whether a true neoplastic process or malformative lesion or dysplastic hamartomatous lesion. MVNT was defined as a specific cytologic pattern of gangliocytoma in the revision classification.

The epidemiology of this newly identified tumor group is unclear. Many of them are asymptomatic and are seen incidentally. For these reasons, this tumor is usually underdiagnosed. In the reported cases, the lesions are mostly located in the temporal lobe, which are usually present in young-middle aged patients with epilepsy.

MRI findings are lesions which are clusters of well circumscribed high T2 signal bubbles located predominantly in the subcortical white matter. They are hyperintense on T2 and T2-FLAIR images and lesions contrast enhancement or mass effect are almost never present.

MVNT is considered a "leave me alone" lesion; it must be managed properly in order to avoid unnecessary biopsy or surgery, taking into consideration the stability of the case especially if it is found incidentally.

The differential diagnosis of MVNT are dysembryonic neuroepithelial tumor, focal cortical dysplasia (type II), Virchow-Robin perivascular spaces.

In this case report, we aimed to present MRI findings of MVNT.

Keywords: MVNT, DNET, temporal lobe lesions, epilepsy

P - 0275

ATRETIC CEPHALOCELE: MRI FINDINGS OF TWO CASES

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Abstract

Atretic cephaloceles are congenital, benign malformative lesions which are skin-covered midline subscalp lesions at parietal region. They consist meningeal structures or neuronal and glial remnants.

Atretic cephalocele is considered as benign and curable neural tube closure defect and is important because of accompanying central nervous system (CNS) anomalies.

The prognosis is determined by the accompanying CNS anomalies such as cortical developmental anomalies, cortical heterotopy, holoprosencephaly, Dandy-Walker malformation, corpus callosum hypogenesis, ventriculomegaly. If one of these anomalies are present, prognosis is much worse.

Although radiographs, CT and US imaging can be used for the diagnosis, MRI is the best imaging method because it reveals key findings, helps to exclude differential diagnoses, and doesnt contain ionizing radiation.

Findings evaluated in MRI are; a subgaleal cystic mass with herniation of intracranial structures from a sharp limited calvarial defect, a vertically oriented primitive falciparum vein terminating in the cystic mass and the accompanying linear CSF tract,, cephalocele associated fibrous stalk, superior displacement of the posterior tentorium and tentorial insisor, superficial sagittal sinus fenestration at the level of atretic cephalocele and prominence of the superior cerebellar cistern and suprapineal recess.

Differential diagnoses primarily include sinus pericrania and dermoid / epidermoid cysts. Also encephalocele,hematoma, vascular lesions such as hemangioma, tumors such as langerhans cell histiocytosis, rhabdomyosarcoma and bone marrow or soft tissue infections should be kept in mind.

In this presentation, we aimed to present MRI findings of two patients with atretic cephalocele. As well, relevant literature is reviewed along with the findings.

Keywords: Atretic cephalocele, cystic scalp lesion

P - 0276

RADIOLOGIC STAGING IN NEUROBLASTOMA: CT OR MRI?

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Abstract

Objective: Neuroblastomas are the most common extracranial solid tumors in pediatric age group. "International Neuroblastoma Staging System (INSS)" which is described based on the postoperative findings is used for staging of neuroblastoma. The "International Neuroblastoma Risk Group Staging System (INRGSS)" is designed for pre-treatment tumor staging. According to the INSS; neuroblastomas are categorized as localized-resectable (Stage 1-2), unresectable (Stage 3), and metastatic (Stage 4-4S). According to the INRGSS; they are classified as localized (L1-2) and metastatic (M, MS) disease. The aim of this study is to compare the effectiveness of computed tomography (CT) and magnetic resonance imaging (MRI) in the staging of neuroblastomas according to the INRGSS.

Materials and Methods: We evaluated 20 patients with neuroblastoma, who had both CT scan and MRI, and were staged based on the INSS between 2005 and 2018. The INRGSS stages corresponding to the INSS stages of the tumors were determined. The image-defined risk factors of tumors (vascular encasement, intraspinal extension, airway compression, visceral organ infiltration, and involvement of multiple body compartments) were evaluated by CT scan and MRI. Then, stages of tumors were described according to the INRGSS for CT and MRI, separately. Kappa test was used to evaluate the compatibility between expected tumors' stages and tumors' stages which were considered by using CT scan and MRI.

Results: The mean age of 20 patients was 22.9±28months. The distribution of tumors' stages according to the INSS was stage 1 2/20; stage 2 2/20; stage 3 6/20; stage 4 7/20; stage 4S 3/20. The distribution of expected tumors' stages was L1 2/20; L2 8/20; M 7/20, MS 3/20. The level of agreement between expected tumors' stages and tumors' stages which were considered by using CT was found as good (k=0.77), by using MRI was excellent (k=0.86). MRI was also superior to CT for determination of metastatic disease and bone marrow infiltration. CT was more useful to consider the relationship between tumors and vascular structures.

Conclusion: MRI and CT have high diagnostic accuracy rates in the staging of pre-treatment neuroblastomas. MRI is important in pre-treatment evaluation of neuroblastomas because of the higher detection of metastases as well as the lack of ionizing radiation.

Keywords: Neuroblastoma, MRI, CT, staging

P - 0277

THE EFFICACY OF DIFFUSION-WEIGHTED IMAGING IN HYPOXIC ISCHEMIC ENCEPHALOPATHIES OF NEWBORNS

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Abstract

Objective: Hypoxic ischemic encephalopathy is the most important cause of neurological morbidity and mortality in preterm and term newborns. 15-20% of cases with HIE die during neonatal period and 30% of survivors have neurodevelopmental disorders such as cerebral palsy and mental retardation. In our study, the efficacy of DAG in determining the diagnosis and prognosis of the HIE of the newborn was investigated.

Materials and Methods: We evaluated the images of eleven patients and six control cases who were diagnosed with HIE in the last 6 months in our hospitals newborn unit. Diffuse MRI images were evaluated in frontal and parietal white matter, basal ganglia, thalamus, splenium and cerbellar white matter. ADC values of patient and control group were compared with student T test.

Results: There were 5 female 6 male patients in the patient group and 1 female 5 male in the control group. Significant differences were detected between the findings of the corpus callosum splenium component in correlation with the ADC values obtained from ROIs placed in different regions in the patient and control group, Student T test ($p<0.05$). There was no significant difference in measurements made from other regions ($p>0.05$). There was no significant relationship between gender in the patient and control group ($p>0.05$).

Conclusion: Early detection of neurological damage in HIE babies is the most important step in determining appropriate preventive treatment approaches. The radiological method that shows the ischemic changes of the brain at the earliest is DAG. In our study, the efficacy of determining the prognosis and the diagnosis of HIE of newborn of newborn was investigated.

Keywords: HIE, newborn, DWI

P - 0278

A BOY WITH SEVERE EPIGASTRIC PAIN: ACUTE NECROTIZING PANCREATITIS

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Abstract

A 9-year-old male child was admitted with severe vomiting and epigastric abdominal pain for one week. There was no known medical history of our patient. The plain X-Ray of the abdomen was unremarkable. The axial transvers abdominal ultrasonography revealed the cystic hypoechoic (white asterisk), necrotic and inflammatory (black asterisk) hyperechoic changes at the level of the pancreatic corpus and tail. T2-weighted axial magnetic resonance image showed the signal characteristics referring the cystic-necrotizing pancreatitis at the level of the pancreatic corpus and tail. The serum amylase level was 288 U per L; normal range: zero to 88 U per L. Acute necrotizing pancreatitis was diagnosed by imaging and laboratory findings. Thus, our patient underwent therapy including intravenous hydration, pain control and bowel rest.

Acute necrotizing pancreatitis is a serious condition associated with high morbidity and mortality. Necrotizing pancreatitis is well described in adults; but the pediatric literature is very limited. The imaging features of acute pancreatitis in pediatric patients are similar to those seen in adults include pancreatic collection, edema, hemorrhage or necrosis of the pancreatic parenchyma, peripancreatic fat. Acute pancreatic pseudocysts smaller than 5 cm in diameter are managed with observation for 4-6 weeks. Pancreatic pseudocysts larger than 5 cm in diameter may require surgical intervention.

Keywords: Epigastric pain, pediatric, MRI, pancreatitis

P - 0279

AN UNUSUAL CAUSE OF HYDRONEPHROSIS IN A 9-YEAR-OLD CHILD: RENAL HYDATID CYST

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Abstract

A 9-year-old girl presented with right flank pain for three months. Physical examination revealed right costovertebral angle tenderness. The laboratory findings, including renal function tests revealed elevated creatinine levels (3.1 milligrams per deciliter; normal levels: 0.84-1.21 milligrams per deciliter) and urine tests were within normal limits. Ultrasonography (US) imaging of abdomen presented mild hydronephrosis and a well-defined, hypoechoic, thin walled cystic lesion in the lower pole of the right kidney. The US imaging study also showed a well-defined, hypoechoic, thin walled cystic lesion in the left lobe of the liver. Then, abdominal MR imaging studies were performed. It revealed a well-defined, 65x55 mm cystic lesion in the lower pole of the right kidney. This cystic lesion was hypointense on T1-weighted and hyperintense on T2-weighted MR images. The cyst wall was hypointense on T2-weighted MR images, isointense on T1-weighted images. It had not any solid component and septa. There were no contrast enhancement patterns in this cystic lesion on the contrast enhanced T1-weighted images. The MR images also showed grade II pelvicalyceal dilatation of the right kidney secondary compression of the ureter. In addition, it revealed a well-defined, 35x41 mm cystic lesion in the left lobe of the liver. MR signal characteristics of this cystic lesion were similar to the cystic lesion in kidney. Immunological findings also revealed elevated Echinococcosis antibody titers (IgG levels:2.95; positive values >1.1). Abdominal surgical exploration showed the renal and hepatic hydatid cyst and open cystectomy was performed for both cysts.

Keywords: Renal, hydatid cyst, hydronephrosis, MRI

P - 0280

HYPOPHYSEAL INVOLVEMENT OF T-CELL LYMPHOBLASTIC LYMPHOMA MIMICKING PITUITARY ADENOMA

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Abstract

We present an unusual case of hypophyseal involvement in a girl with T-cell lymphoblastic lymphoma via magnetic resonance (MR) imaging findings. In our case, the T-cell lymphoblastic lymphoma of the pituitary gland was accurately distinguished from a pituitary adenoma by contrast-enhanced dynamic hypophysis MR imaging studies.

A 14-year-old boy was referred to our radiology department to perform the contrast-enhanced brain magnetic resonance (MR) imaging. There was known history of T-cell lymphoblastic lymphoma and course of chemotherapy for three years in his medical background. During follow-up in remission, the patient had visual disturbance in bilateral eyes and severe headache for one week. We detected a large, homogeneously enhancing intrasellar/suprasellar lesion on post-contrast fat suppressed T1-weighted brain MR images. We did not decide whether it was hypophyseal involvement of T-cell lymphoblastic lymphoma or pituitary adenoma. To make a differential diagnosis, contrast-enhanced dynamic hypophysis MR imaging procedure was performed to the patient. This lesion displaced the optic chiasm and extending into the hypophyseal stalk. It had homogeneous hyperintense contrast enhancement pattern on dynamic post-contrast fat suppressed T1-weighted hypophysis MR images. Since pituitary adenoma has usually hypointense signal characteristics on dynamic post-contrast fat suppressed T1-weighted hypophysis MR images; radiologically, these findings were thought to represent a hypophyseal involvement of T-cell lymphoblastic lymphoma in our patient. Thus, the patient underwent chemotherapy and hypophyseal hormone replacement treatments. After three months of follow-up, control dynamic post-contrast fat suppressed T1-weighted hypophysis MR images showed apparent regression of hypophyseal involvement. The T-cell lymphoblastic lymphoma of the pituitary gland was accurately distinguished from a pituitary adenoma by contrast-enhanced dynamic hypophysis MR imaging technique in our patient.

Keywords: Hypophysis, lymphoma, MRI

P - 0281

A RARE LOCATION: ISOLATED MULTIPLE PSAMMOMATOUS MENINGIOMAS

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Abstract

A 13-year-old girl presented to the neurosurgery clinic with progressive motor weakness and sensation disturbance. Magnetic resonance imaging revealed multiple intradural extramedullary mass at the cervicothoracal region causing cord compression. The lesions were hyperintense on T2-weighted (T2W) and hypointense on T1-weighted (T1W) images. After injection of contrast agent, magnetic resonance imaging showed a homogenous enhancement in masses. Pathologic specimens obtained at surgery showed psammomatous meningiomas. Isolated multiple spinal meningiomas are very rare but have been reported.

Keywords: Isolated multiple psammomatous meningiomas, spine, MRI findings

P - 0282

A DIAGNOSTIC CHALLENGE: FOCAL FATTY LIVER OR METASTASIS?

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Abstract

A 12-year-old girl was referred to our radiology department to perform imaging of the contrast-enhanced thorax and abdomen via computed tomography. There was history of T-cell lymphoma managed with chemotherapy for 3 years. We detected a hypodense well-circumscribed lesion located at the perivascular region adjacent to the right portal vein. This hypodense lesion was not seen on the previous abdominal computed tomography examination. To differentiate the lesion, a magnetic resonance (MR) imaging procedure was performed. This lesion had hyperintense signal characteristic on in-phase MR images but was hypointense on out-of-phase MR images. There was no contrast enhancement pattern on postcontrast T1-weighted MR images. The focal fatty liver was accurately distinguished from a metastatic liver lesion by inand out-of-phase sequences of abdomen MR imaging procedure.

Keywords: Fatty liver, metastasis, MRI, pediatric

P - 0283

BRAIN MRI FINDINGS IN PRIMARY CARNITINE DEFICIENCY: A CASE REPORT

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Abstract

We presented MRI and DWI findings of a 16-year-old boy manifested with hypoglycemic hypoketotic encephalopathy.

In our case, T2 hyperintensity and diffusion restriction were noted bilaterally in the centrum semiovale, cerebral white matter, deep white matter of cerebellum, corticospinal and corticobulbar tracts of brainstem.These MRI findings were consistent with hypoglycemic hypoketotic encephalopathy secondary to primary carnitine deficiency. MRI is helpful in the diagnosis, therapy planning, and follow-up of encephalopathic cases with carnitine deficiency.

Keywords: MRI, primary carnitine deficiency, encephalopathy

P - 0284

PATHOLOGICAL CONDITIONS CAUSING ABNORMAL SHAPE AND DEFORMATION OF THE FOURTH VENTRICLE: MRI FINDINGS

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Abstract

The fourth ventricle is at the center of the posterior fossa. It is surrounded by critical nuclear structures and important foraminal structures. A wide array of pathological conditions may affect the fourth ventricle, ranging from congenital anomalies to mass lesions. A thorough understanding of the anatomic relationships in the posterior fossa and the effect of various pathological conditions on the ventricle's shape play a key role in the assessment of imaging findings and making differential diagnosis. Some pathologies involving the fourth ventricle may cause alterations of its shape, creating some characteristic shapes such as "tent", "bat wing", "key holes", and "butterflies". Some of these deformities helps make a "aunt ayşe" diagnosis known to a radiologist in daily practice. In many cases, an asymmetric appearance or shift in the shape, volume, and localization of the fourth ventricle may be the only sign of a pathological lesion. Thus, a more comprehensive scan is needed in radiological evaluation. In this report, various pathological conditions causing dysmorphism and deformation of the fourth ventricle were reported with a large number of cases and MRI findings.

Keywords: Anomalies, fourth ventricle, magnetic resonance imaging, posterior fossa

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BONE MARROW TRANSPLANTATION COMPLICATION: "PRES"S THE MIND

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Abstract

Objective; Posterior reversible encephalopathy syndrome (PRES) is a complex but well understood radiological entity. However the pathogenesis is not completely understood. It is believed that damaged auto

regulation and endothelial dysfunction is responsible from vasogenic sub cortical edema without infarction.

Patients who undergo bone marrow transplantation are at risk for developing graft versus host disease (GVHD). Calcineurin inhibitors, such as tacrolimus or cyclosporine, are agents commonly used to prevent the development of GVHD. One rare but significant side effect of these drugs is PRES. The incidence of PRES secondary to tacrolimus is not well known.

In this poster we aim to remember radiologic features of PRES by giving an example of magnetic resonance images (MRI) of a pediatric hematology patient.

Materials and Methods: 10 years old boy who has a seizure after bone marrow transplantation is consulted to our radiology department to perform MRI scan. Seizure was explained with no other reasons. On his MR images frontoparietal patchy hyperintensities without diffusion restriction are seen.

Conclusion: The seizures are frequent manifestations of neurological complications after pediatric hematopoietic stem cell transplantation. In most cases seizures are the first manifestation of effected brain. Also they were often repeated and/or long lasting requiring treatment.

In pediatric patient in some cases neuroimaging is essential to diagnose and treat correctly. Because in these cases it is required to be ensured acute antiepileptic treatment, but a long lasting prophylactic therapy with benzodiazepines and/or phenytoin is not usually necessary. That's why PRES has to be kept in mind in differential diagnosis.

Keywords: PRES, pediatric petient, bone marrow transplantation

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PRENATAL DIAGNOSIS OF RHOMBENCEPHALOSYNAPSIS

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Abstract

Rhombencephalosynapsis (RC) is a rare cerebellar malformation with unknown etiology. It is usually sporadic, and clinical presentation can be variable. RC refers to the absence of cerebellar vermis, cerebellar fusion and apposition or fusion of the dentate nuclei. RC is frequently associated with other cerebral and extracerebral malformations. RC is known to co-exist with congenital ventriculomegaly in 45-65% of the cases. Ventriculomegaly can be a result of aqueductal stenosis, or abnormal orientation of the 4th ventricle.

Herein, we present the fetal US and MRI findings of a rare case of RC at 20 weeks of gestation. Second trimester fetal US revealed dichorionic diamniotic twin pregnancy. Twin A appeared normal on US. Twin B had hypoplastic and fused cerebellar hemispheres, as well as agenetic cerebellar vermis. In addition to these findings, twin B also showed triventricular hydrocephaly (atrial width: 21 mm), with the 4th ventricle being normal. No additional fetal anomalies were detected on US. Fetal MRI confirmed the US findings, with better delineation of the cranial anatomy. Final diagnosis was RC with aqueductal stenosis.

In conclusion, RC is a rare abnormality that can be identified in the prenatal period by US and fetal MRI.

Keywords: Rhombencephalosynapsis, fetal MRI, fetal ultrasound, prenatal diagnosis

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ATROPHY OF THE LEFT FACE AND SHORTNESS OF THE LEFT EXTREMITIES: MIDBRAIN CAVERNOMA IN A PEDIATRIC PATIENT

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Abstract

Cavernous hemangiomas (cavernoma) are 9% of cerebral vascular malformations.Cerebral cavernomas tend to be cerebral hemispheres. Thalamic and midbrain cavernomas are relatively rare. These lesions frequently symptomatic because of their significant location. We aimed to present 10 years old female patient who admitted to hospital complaint of atrophy of the left face and shortness of the left extremities with hemiparesis. Magnetic resonance imaging, susceptibility weighted imaging and diffusion weighted imaging findings are discussed.

Keywords: Midbrain cavernoma, face atrophy, magnetic resonance imaging, susceptibility weighted imaging

P - 0288

SYDENHAM CHOREA: THREE PEDIATRIC PATIENTS

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Abstract

Sydenhams chorea is a late manifestation of acute rheumatic fever and thought to be an autoimmune disorder. The neuroimaging findings of this entity rarely reported. In this report we aimed to present Magnetic Resonance Imaging (MRI) findings of three patients with Sydenhams chorea.

Keywords: Sydenhams chorea, chorea, Magnetic Resonance Imaging

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TAYLOR DYSPLASIA (TYPE II FOCAL CORTICAL DYSPLASIA) IN CHILDREN: CASE SERIES

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Abstract

Type II focal cortical dysplasia (FCD) is most common cause of drug resistant epilepsy in pediatric population and curable by surgery. It is highly epileptogenic lesion that missed by magnetic resonance imaging (MRI) in about one third of cases. The most common findings on MRI include focal cortical thickening or thining, increased signal on T2 weighted and FLAIR sequences in the gray and subcortical white matter, blurring of the gray-white matter junction. We present radiological findings of Taylor dysplasia in seven children with epilepsy.

Keywords: Focal cortical dysplasia, taylor dysplasia, magnetic resonance imaging, epilepsy

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CHILD WITH HERLYN-WERNER-WUNDERLICH (HWW) SYNDROME

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Abstract

Herlyn-Werner-Wunderlich (HWW) syndrome is a rare anomaly of the mullerian duct. The uterus is involved with the didelphys, the hemivagina is obstructed, and the unilateral is renal agenesis.

The most common finding is hematocolposa secondary to abdominal and pelvic pain, dysmenorrhea.

This syndrome was first described in 1922 with regular menstruation, with increasing pelvic pain and a pelvic mass beginning with menarche.

Our case was a 15-year-old girl with agenesis in the left kidney, a corpus in the left uterus with uterus didelphys, which was normal, and heterogeneous in the cervix filling hemorrhage.

Once the cervix was emptied, the lesion recurred. For the second time, the cervix was drained.

It was presented for the rare occurence.

Keywords: Herlyn-Werner-Wunderlich (HWW) syndrome, uterus didelphis, mullerian duct anomaly, hematocolpos

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PEDIATRIC CARDIAC MAGNETIC RESONANCE IMAGING: COMPARISION OF MRI MEASUREMENT OF LEFT VENTRICULAR EJECTION FRACTION TO ECHOCARDIOGRAPHY, EVALUATION OF BIVENTRICULAR VOLUMES AND FLOW DYNAMICS IN PATIENTS WITH REPAIRED TETRALOGY OF FALLOT

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Abstract

Objective: Our main purposes were to compare agreement between M Mode echocardiography and MRI for left ventricular ejection fraction (LVEF) measurements; to evaluate biventricular volumes and pulmonary valve dynamics in patients with repaired Tetralogy of Fallot (TOF) and to compare agreement of tomographic and VEC-PC methods for pulmonary regurgitation quantification.

Materials and Methods: 25 patients were studied. Left ventricle volumes of all patients were measured from short axis images. Intraclass correlation coefficient (ICC) was used to compare MRI and echocardiography measurements for LVEF. Biventricular volumes and functions were evaluated and compared to control group in repaired TOF patients. Also pulmonary valve flow was assessed by VEC-PC and tomographic methods and agreement evaluated.

Results: Measurements of left ventricle EF correlated mildly between MRI and echocardiography (ICC 0.54). MRI comparison of biventricular metrics of patients with repaired TOF with normal controls confirmed an increase in RVEDVI, RVESVI, RVSVI and LVEF ($p<0.05$). LVSVI was higher in control group ($p<0.05$). High agreement ($r=0.81$, p 0.026) between VEC-PC and tomographic methods for pulmonary regurgitant flow measurement was noted.

Conclusion: Cardiac MRI has many advantages over echocardiography in diagnosis, follow up and evaluation of postoperative complications and valvular pathologies of patients with congenital heart disease. Echocardiography cannot be used as an alternative of MRI in quantification of left ventricular EF, because of the very wide variances and mild correlation between two techniques. Biventricular evaluation is essential in patients with repaired TOF for detection of left ventricular dysfunction. Increase in LVEF might be the first finding of early dysfunction.

Keywords: Cardiac, pediatric, TOF

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ECTOPIC PARTIAL INTRAHEPATIC GALLBLADDER: RADIOLOGICAL FINDINGS OF AN UNUSUAL ANATOMICAL VARIANT

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Abstract

Objective: Ectopic gallbladder is very rare and can be found in intrahepatic, suprahepatic, retrohepatic, retroperitoneal, falciform ligament, abdominal wall, left quadrant of abdomen and intrathoracic localizations. In this study we aimed to present an ectopic partial intrahepatic gallbladder anomaly by radiological methods, which was only able to be revealed in surgery and cadaver studies so far.

Materials and Methods: Ultrasonography of a 43-year-old male patient with right upper quadrant pain in the abdomen revealed a lobulated cystic lesion associated with gallbaldder in the liver. In CT, a lobulated, non-contrasting cystic structure associated with gall bladder at segment 8 of the liver observed. The patients laboratory values were normal.

Magnetic Resonance Cholangiopancreatography (MRCP), dynamic magnetic resonance (MR) after IV Gadoxetate disodium (commercial names Primovist and Eovist) injections and MRCP at the 30th and 60th minutes after and drug injection was performed for the diagnosis.

Unenhanced MRCP was also found that gallbladder associated with the lesion. MR showed that the cystic structure was connected to the gallbladder and based on MRCP findings at 60th minutes after the contrast injection; it revealed that the lesion was homogeneously filled with the contrast

Conclusion: It is important to recognize ectopic intrahepatic gallbladder before surgery. Cholecystectomy in intrahepatic gallbaldder variations is more difficult and dangerous. If these cases are accompanied by cholecystitis, it is even more difficult to recognize it radiologically. For this reason, it is important to diagnose this anomaly with preoperative imaging methods. Contrast-enhanced MRCP may contribute to diagnosis.

Keywords: Gallbladder, magnetic resonance cholangiography, varvation

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POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME IN PEDIATRIC PATIENTS: FALL IN LOVE WITH CEREBELLUM, FRONTAL LOBE AND TEMPORAL LOBE?

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Abstract

Objective: Posterior reversible encephalopathy syndrome (PRES) is a clinico-radiological disease with characteristic magnetic resonance imaging (MRI) findings. MRI shows subcortical/cortical hyperintensity in T2-weighted sequences, typically in posterior circulation distribution. Although parieto-occipital regions involvement is most common; atypically, involvement of the cerebellum, frontal lobe and temporal lobe in pediatric patients are often detected. We aimed to present clinical and radiologic findings of PRES with atypical MRI findings in pediatric patients.

Materials and Methods: We retrospectively evaluated the MRI findings of 9 cases of pediatric PRES.

Results: Three of the patients were girls, six were boys. The patients' age ranged from 5 to 16 years (mean age, 9.4 years). All lesions had subcortical/cortical hyperintensity in T2-weighted sequences. All patients had parieto-occipital regions involvement, eight patients had frontal lobe, seven patients had cerebellar and temporal lobe and one patient had splenic involvement. In two patients cortical diffusion restriction, in two patients hemorrhage was an associated feature. In one patient exhibited intense enhancement after intravenous contrast injection.

Conclusion: Atypical MRI findings of PRES are seen quite often in pediatric patients; especially involvement of the cerebellum, frontal lobe and temporal lobe. In addition diffusion restriction, contrast enhancement and hemorrhage can also be seen.

Keywords: Atypical findings, MRI, cerebellum, PRES

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THE BENEFIT OF ENDORECTAL COIL USAGE IN DIAGNOSING BIOCHEMICAL RECURRENCE: CASE REPORT

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Abstract

Introduction: After radical prostatectomy(RP),a significant drop expected in prostate specific antigen (PSA) level to 0.01ng/mL. Post-RP level of PSA above 0.2ng/mL is defined as biochemical recurrence(BCR). It is difficult to detect BCR with MRI after RP when PSA is below 1ng/ml. In this case report, early diagnosis of BCR and incidental small polipoid bladder carcinoma was demonstrated with use of endorectal coil(ERC).

Case Report: Twelve-quadrant systemic tru-cut biopsy were performed to the 78 years old patient with PSA=8.24ng/mL and diagnosed Gleason 3+3 at 5 cores with maximum 80% involvement. Thoracoabdominal computerized tomography, whole body scintigraphy were negative for metastasis. Gleason 3+4 tumour with 5% involvement determined by RP specimen(upgrade after RP) and the surgical margin was tumor positive on the right. Multiparametric prostate MRI (mpMRI) was performed with 1.5 Tesla (T) (Avanto, Siemens, Germany) due to high post-op PSA (0.59ng/mL). ERC was used to increase diagnostic accuracy. In this MRI, a 2.4mm nodular lesion was detected on right side of bladder neck anastomosis. This lesion had low signal on T2W, slightly restricted diffusion, nodular enhancement and was reported as residue which was supported with laboratory findings and proven pathologically. 4.5mm bladder tumor was coincidentally noticed and confirmed by cystoscopy.

Conclusion: The standard use of ERC is controversial, but it is recommended for 1.5T devices in prostate imaging reporting and data system version 2 (PIRADSv2). ERC can increase signal-to-noise ratio by 4-9 folds. Sensitivity of mpMRI without ERC is relatively low in treated cases. The usage of ERC seems to be beneficial in treated patients with prostate carcinoma.

Keywords: Prostate carcinoma, biochemical recurrence, endorectal coil, MRI, PIRADSv2

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FRONTOORBITAL ANEURYSMAL BONE CYST: A RARE CASE REPORT WITH LITERATURE REVIEW

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Abstract

Aneurysmal bone cysts are uncommon, benign, vascular, multicystic lesions destructing the cortical bone by the expansion of the vascular channel in the diploic space. That occur most frequently in long bones, vertebrae, and the pelvis. It has been reported incidence with 0.14 cases for every 1,000,000 people. Fronto orbital involvement is very rare and less than 100 patients has been reported in the literature to our knowledge. We present X-ray, CT and MR imaging findings and literature review of an aneurysmal bone cyst of the fronto orbital region with intracranial extension in a 4-year-old female confirmed histopathologically.

Keywords: Aneurysmal bone cyst, CT, frontal, MRI, orbita,

P - 0296

IDIOPATHIC ORBITAL INFLAMMATORY SYNDROME

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Abstract

Idiopathic orbital inflammatory syndrome, also known as orbital pseudotumor, is a nonspecific, non-neoplastic inflammatory process of the orbit, and 3rd most common ophthalmologic disease of the orbit, following Graves disease and lymphoproliferative disorders. Pathologically, orbital pseudotumors show a nonspecific infiltration of inflammatory cells composed of lymphocytes, plasma cells, neutrophils, and macrophages. It may involve any part of the orbit including muscles, tendons, fat, optic nerve, nerve sheet, lacrimal gland. The symptoms of idiopathic pseudotumors reflect the degree of the inflammatory response (acute, subacute, or chronic) and location of the inflammatory tissue. The radiological findings of pseudotumor are characterized by inflammatory changes and in the various intraorbital structures. MRI is gold standard particularly useful in assessing muscular involvement, extraorbital extent, such as cavernous sinus and to determine the tendinous involvement in addition to extraocular muscles which suggests pseduotumor orbita and is a key finding in distinguishing pseudotumor orbita from thyroid eye disease. MRI findings include T2-weighted hypointensity (possibly reflecting the fibrotic changes), rarely hipo-izointensity and marked gadolinium enhancement. The disease respondes well to steroid therapy. We herein present the MRI findings of a case with idiopathic orbital inflammatory syndrome that was treated with medical therapy and both symptoms and follow-up MRI scans were improved dramatically.

Keywords: Idiopathic orbital inflammatory syndrome, orbital pseudotumor

P - 0297

A CASE OF OLFACTORY NEUROBLASTOMA

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Abstract

Olfactory neuroblastomas (esthesioneuroblastoma) are neuroectodermal tumors arising from nasal cavity olfactory recess. In this case report, a nineteen year-old male patient with nasal stuffiness was presented via computed tomography (CT) and magnetic resonance imaging (MRI) findings. CT findings were useful for the detection of bony destruction. CT images were revealed that right medial wall of the orbit and maxillary sinus resorbing with soft tissue extension. The lesion demonstrated intermediate signal intensity on T1 and T2 weighted images. Also, contrast enhancement was marked in MRI study. This patient with extension to the orbit staged as group C.

Keywords: Esthesioneuroblastoma, olfactory, CT, MRI

P - 0298

TWO RARE CASES OF BILATERAL OPTIC NERVE SHEATH MENINGIOMA

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Abstract

We describe two cases of bilateral optic nerve sheath meningioma in which the diagnosis was missed for more than 3 years after the onset of symptoms. Clinical features led to a misdiagnosis of optic neuritis in all cases. Radiologically, these tumors can easily be overlooked on routine imaging protocols. Radiologists must be aware for the early diagnosis of optic nerve sheath meningioma in patients with progressive visual loss.

Keywords: Optic nerve sheath meningioma, MRI, radiologic malpractice

P - 0299

FOLLOW-UP IMAGING OF A NON-FAMILIAL CHERUBISM CASE WITH MAXILLARY AND MANDIBULAR INVOLVEMENT

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Abstract

Introduction: The aim of this case report is to inform clinicians and radiologists about Cherubism, a rare pediatric maxillofacial disease which spontaneously resolves after puberty and doesn't require any operation or medication unless a complication or severe symptom occurs.

Case Report: We present a case with seven years follow-up, who has late onset of the Cherubism disease. Firstly, our seven-years old, male patient presented with swelling of bilateral jaws in 2010. Maxillofacial Computed Tomography (CT) showed multiple, hypodense, multilocular cystic lesions in bilateral maxilla and mandible. Histopathological findings of the lesions

were osteoclast type multinucleated giant cells. According to clinical, radiological and histopathological findings, the patient with no disease or family history was diagnosed with Cherubism. He did not have any severe symptoms or complication during his clinical follow up within routine periods. Seven years after the first diagnosis, bilateral exophtalmus occured in his adolescence. Orbital Magnetic Resonance Imaging (MRI), Maxillofacial CT were performed in order to evaluate for orbital wall infiltration which showed resolvement of the cystic lesions. Mandibular condyle involvement, a rare presentation of Cherubism disease and proptosis in despite of the regression of the lesions was observed.

Conclusion: Clinicians and radiologists should keep in mind Cherubism, which spontaneously resolves after puberty, for differential diagnosis of children with jaw swelling and tooth maloclusion in order to avoid unnecessary interventions.

Keywords: Cherubism, mandible, maxilla, computed tomography, magnetic resonance imaging

P - 0300

COSTAL CHONDROBLASTOMA MIMICKING BREAST CANCER IN AN ELDERLY MALE: A CASE REPORT

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Abstract

Although chondrosarcoma is common among the bone tumors, costal chondrosarcoma is a very rare malignant tumor of the bone. They are most commonly found in elderly patients within the long bones especially upper and lower extremities. In rare instances, the chest wall can be involved, with chondrosarcomas occurring in the ribs, sternum, anterior and posterior costosternal junction. Some types of chondrosarcomas grow slowly and, provided they are removed completely, have a low risk of spreading to other organs. Others grow rapidly and have a high risk of metastasis. Most patients present with an enlarging painful anterior chest wall tumor. Primary chondrosarcoma of the breast is extremely rare in the literature.

Here, a case of costal chondrosarcoma mimicking breast cancer in 76-years old male with a tumor size of 14×10 cm on the right breast involving the chest wall and 8th rib was presented with Magnetic Resonance Imaging (MRI) findings.

Keywords: Chondrosarcoma, costa, male breast cancer

P - 0301

CEREBRAL AND SPINAL CORD ISCHEMIA DEVELOPING SECONDARY TO SHORT SEGMENT AORTIC DISSECTION

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Abstract

Objective: In this study, it is aimed to discuss the patient presented to emergency services due to sudden chest pain, dyspnea, and weakness in the lower extremities with suspected of having aortic dissection and in whom cerebral and spinal cord ischemia developed during the follow-up along with literature.

Material and Methods: 76 years male patient consulted to emergency service due to the sudden chest pain, dyspnea and weakness in lower extremities. According to these findings thorax CT, cranial diffusion magnetic resonance imaging (MRI) and thoracolumbar MRI imaging was performed.

Results: In cranial diffusion MRI there were acute ischemia areas in left occipital and right parahippocampal gyrus. According to the thoracolumbar MRI, hypointense signal changes in T1W series and hyperintense signal changes in T2W series causing expansion were detected in the spinal cord. It was diagnosed as spinal cord ischemia In thorax CT dissection of descending aorta in 2 cm segment at distal thoracal level was confirmed. Pleural fluid reaching 10 cm of thickness was seen at left hemithorax. Laboratory examination result of the fluid was consistent with hemothorax

Conclusion: The patient was diagnosed with only 2 cm segment aortic dissection and rupture based on the Thorax CT findings. The patient was diagnosed with spinal cord and cerebral ischemia due to malperfusion. Sudden chest pain is generally the first symptom of aortic dissection, but aortic dissection patients can also consult with atypical symptoms like paraplegia and syncope without pain.

Keywords: Aortic dissection, ischemia, MRI, thorax CT

P - 0302

MRI FINDINGS OF SUBACUTE SCLEROSING PANENCEPHALITIS: A CASE REPORT WITH REVIEW OF THE LITERATURE

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Abstract

Subacute sclerosing panencephalitis (SSPE) is a rare, chronic, demyelinating and progressive encephalitis of central nerve system (CNS) affecting primarily children and young adults that is caused by persistent infection of measles virus. The disease typically involves periventricular and subcortical white matter but grey matter may also be affected. Corpus callosum, basal ganglia and brainstem are rarely involved structures. In this case report, findings of conventional mri and proton mr spectroscopy of a 20 years old male who was diagnosed with SSPE are presented with the review of the literature.

Keywords: SSPE, conventional mri, proton mr spectroscopy

P - 0303

A RARE CAUSE OF TEMPORAL LOBE EPILEPSY: INCOMPLETE HIPPOCAMPAL INVERSION

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Abstract

Hippocampal development is completed between 8-21 gestational weeks. During this period, folding of dentate gyrus and cornu ammonis around the hippocampal sulcus, so called hippocampal inversion, takes place. If this process is not completed, incomplete hippocampal inversion (IHI) occurs. IHI is a rare cause of in temporal lobe epilepsies. The hippocampus becomes more rounded, and positioned more vertically and medially than it should be. Hippocampal signal intensity and size is usually normal, while internal structure may be blurred. We herein present the MRI findings of incomplete hippocampal inversion as epileptogenic foci in two cases with epilepsy.

Keywords: Incomplete hippocampal inversion, temporal lobe epilepsy

P - 0304

FAT DROPLETS IN SUBARACHNOID SPACE DUE TO RUPTURED DERMOID CYST: A RARE ENTITY

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Abstract

Intracranial dermoid cysts are extremely rare, slow-growing, congenital inclusion cysts, originating from an ectodermal inclusion during development of the neural tube.So, they preferentially occur in the posterior skull base and the supra- and parasellar region. The secretion and accumulation of epithelium, or fat lead to slow growth of the cyst. Symptomatic complications usually occur in the 2nd to 3rd decade of life, due to space-occupying effect, or rupture. Headache, nause, vomitting, epilepsy or chemical menigitis may be the presenting symptoms. We presented 26 years old male admitted to hospital because of severe headache. MRI examination revealed 4x2.5 cm T1 and T2 hyperintense fat containing extraaxial mass adjacent to sphenoidal bone and fat droplets in subarachnoid space pathognomic for ruptured dermoid cyst.

Keywords: Ruptured dermoid cyst, fat droplets

P - 0305

RADIOLOGICAL IMAGING FINDINGS OF JOUBERT SYNDROME WHICH IS RARE

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Abstract

Introduction: Joubert syndrome is a rare autosomal recessive disease characterized by neonatal respiratory disregulation, developmental retardation, hypotonia, ataxia, nystagmus and facial dysmorphism. It is characterized by varying degrees of vermian hypoplasia and horizontal course of the superior cerebellar peduncle as a result of thickening between brain stem and cerebellum. Incidence varies between 1/80.0000 -1/100.000. We aimed to present CT and MRI findings of this rare syndrome in a 2-month-old girl.

Case Report: A 2-month-old girl was referred to pediatric neurology clinic with complaint of developmental retardation and seizure. Noncontrast brain CT and MRI for seizure etiology revealed vermian hypoplasia and dilate bat wing-like 4. ventricle. It was observed that thickening, elongation of the superior cerebellar peduncle and not connected peduncles of midline. In MRI, splenium of corpus callosum was not observed in compatible with corpus callosum dysgenesis, lateral ventricles were large and parallel to each other. Findings were interpreted radiologically with Joubert syndrome. Ultrasonography of the abdomen showed no organ anomalies.

Discussion: Joubert syndrome is a rare autosomal recessive disorder; it is characterized by congenital ataxia, hypotonia, neonatal respiratory disturbances, developmental retardation, abnormal eye movements. The delay in diagnosing this disease is usually due to the different and nonspecific presentation of the disease. Multidisciplinary approach is needed for management of the disease. The prognosis depends on the prevalence of the disease, the severity of the respiratory problems and systemic anomalies. Awareness of the characteristic clinical and radiological findings of this disease will help early diagnosis and provide appropriate rehabilitation.

Keywords: Joubert, molar tooth, respiratory disregulation

P - 0306

PSEUDOMENINGOSEL AFTER TYPE I CHIARIAN DECOMPRESSION

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Abstract

Introduction: Type I Chiari malformation is inferior cerebellar tonsiller herniation from foramen magnum. Cervical syringomyelia is frequently accompanied. Posterior fossa decompression is applied in the treatment. It has been reported that the frequency of pseudomeningocele, which is the most common postoperative complication in literature, varies between 3% and 40%. In this case, we aimed to reveal the magnetic resonance imaging (MRI) findings of a patient who was operated due to type I Chiari malformation.

Case Report: A 31-year-old female was admitted for 1 year back pain and numbness on both arms. On cervical MRI cerebellar tonsils were about 7 mm inferior from foramen magnum. At C7-Th1 level were observed syrinx cavity. Posterior fossa decompression was performed. Six days after the operation, patient applied with swelling and discharge in operation. area to emergency department. Patient was admitted to the neurosurgical service with pre-diagnosis of CSF flow. On cervical MR examination, the collecting area which does not contrast, same density with the CSF and dura defect at this level was noticed. Radiological findings were evaluated in favor of postoperative pseudomeningocele.

Conclusion: Surgical management of Type I Chiari malformation allows the patient to improve relieve pain, disability of mobility and quality of life in a prominent and sustainable way. Large-size C1 laminectomy without duraplasty facilitates the formation of pseudomeningocele and eventually cord herniation into this cavity. Pseudomeningocele development should

be considered in patients who have undergone posterior fossa surgery and who present with complaints of swelling and discharge.

Keywords: Chiari malformation, posterior fossa, pseudomeningosel

P - 0307

REVERSIBLE CRANIAL MRI FINDINGS IN AN ANTI-RI POSITIVE PARANEOPLASTIC SYNDROME CASE

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Abstract

Case Report: 46-year old female came in our neurology clinic with complaints of diplopia one year ago. Neurologic examination revealed bilateral horizontal and vertical sight impairment, prominent truncal ataxia and trismus. The patient exhibited a 4th cranial nerve paralysis. On examination the patient also had difficulty swallowing, hoarseness and imbalance. T2 weighted cranial magnetic resonance imaging (MRI) scan showed symmetric hyperintensities on the parapontine reticular formation and medial longitudinal fasciculus. Having paraneoplastic syndrome in mind, lung x-ray, breast ultrasound and mammography was performed. Breast ultrasound revealed a solid lesion; and mammography clustered microcalcifications on the right breast. FDG-PET-CT scan demonstrated hypermetabolic right breast tail and axillary lymph node (SUV-max 6.4) Breast biopsy was interpreted as invasive ductal carcinoma. Cerebrospinal fluid showed a glucose level of 50mg/dL, protein level of 42mg/dL, cell count of 30 with monocyte cell dominance and no atypical cells. On the paraneoplastic cell panel anti-Ri antibodies were tested positive. After mastectomy chemotherapy was started with the diagnosis of invasive ductal carcinoma. Also, methylprednisolon and intravenous immunoglobulin (IVIG) therapy was added to the treatment. 4 months later control MRI scan revealed prominent regression of prior intensity changes of the pons, 9 months later MRI findings disappeared.

Discussion: Anti-Ri antibody positivity is a rare form of paraneoplastic syndrome. Often it has been linked to ovarian, breast and small cell lung cancer. Here, primary objective is the diagnosis of underlying tumor and its treatment and occult malignancy screening should be performed for at least 5 years. Next to tumor resection and chemotherapy, there are also immunosuppressive and immunomodulatory treatment protocols. In our patient, with prednisolone and IVIG treatment clinical symptoms decreased and MRI findings disappeared.

Keywords: Anti-Ri positive, paraneoplastic sydrome, MRI

P - 0308

NECROTIC LEUKOENCEPHALOPATHY DUE TO COMPLEX TYPE I RESPIRATORY CHAIN DEFICIENCY

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Abstract

Complex type I respiratory chain deficiency is one of the most common observed defect in childhood-onset mitochondrial diseases. Defects in complex I are genetically heterogeneous and clinically associated with a wide range of presentations, including marked and often fatal lactic acidosis with cardiomyopathy, Leigh syndrome, myopathy, hepatopathy, renal tubular dysfunction, stroke-like episodes (MELAS), and leukodystrophy. The majority of affected individuals present during the first year of life and have a rapidly progressive leukoencephalopathy and fatal course. Here, we aimed to present the findings of necrotic leukoencephalopathy due to complex type I respiratory chain deficiency in a 5-year-old male patient who underwent contrast-enhanced magnetik resonance imaging (MRI), diffusion MRI and MR spectroscopy.

Keywords: Complex type I respiratory chain deficiency, leukoencephalopathy, magnetic resonance imaging, magnetic resonance spectroscopy

P - 0309

TRANSECTION OF THE INFUNDIBULAR STALK AFTER THE BOMBING IN A SYRIAN REFUGEE CAUSING CENTRAL DIABETES INSIPIDUS

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Abstract

Diabetes insipidus (DI) is a clinical syndrome characterized by excessive urination, excessive thirst and excessive drinking of water. It is defined as the passage of large volumes (>3 L/24 hr) of dilute urine (<300 mOsm/kg). There are two major forms of DI; central (neurogenic, pituitary, or neurohypophyseal) and nephrogenic. In the central form, secretion of antidiuretic hormone decreases secondary to neoplastic and infectious or inflammatory causes. It may rarely be secondary to trauma, in particular by motor vehicle accidents. We present MR imaging findings of transection of the infundibular stalk causing central DI in a 13-year-old male Syrian refugee after the bombing.

Keywords: Bomb, diabetes insipidus, infundibular stalk, transection

P - 0310

MESIAL TEMPORAL SCLEROSIS IN PEDIATRIC AGES

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Abstract

Mesial temporal sclerosis (hippocampal sclerosis) is relatively less com-

mon in children than adults and associated with refractory temporal lobe epilepsy. In this case report, two pediatric patients were presented. A male case sample with left mesial temporal sclerosis was 16 years old and suffering from intractable focal epilepsy. There was reduced volume and increased T2 signal of left hippocampus compared to the right on magnetic resonance (MR) images. A female patient with left hippocampal sclerosis was 14 years old and suffering from intractable complex partial temporal lobe epilepsy. There were similar changes on MR images.

P - 0311

POSTERIOR REVERSIBLE ENCEPHALOPATHY SYNDROME IN PEDIATRIC PATIENTS: FALL IN LOVE WITH CEREBELLUM, FRONTAL LOBE AND TEMPORAL LOBE?

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Abstract

Introduction: Posterior reversible encephalopathy syndrome (PRES) is a clinico-radiological disease with characteristic magnetic resonance imaging (MRI) findings. MRI shows subcortical/cortical hyperintensity in T2-weighted sequences, typically in posterior circulation distribution . Although parieto-occipital regions involvement is most common; atypically , involvement of the cerebellum, frontal lobe and temporal lobe in pediatric patients are often detected. We aimed to present clinical and radiologic findings of PRES with atypical MRI findings in pediatric patients.

Materials and Methods: We retrospectively evaluated the MRI findings of 9 cases of pediatric PRES.

Results: Three of the patients were girls, six were boys. The patients' age ranged from 5 to 16 years (mean age, 9,4 years). All lesions had subcortical/cortical hyperintensity in T2-weighted sequences. All patients hadparieto-occipital regions involvement, eight patients had frontal lobe, seven patients had cerebellar and temporal lobe and one patient had splenic involvement. In two patients cortical diffusion restriction, in two patients hemorrhage was an associated feature.In one patient exhibited intense enhancement after intravenous contrast injection.

Conclusion: Atypical MRI findings of PRES are seen quite often in pediatric patients; especially involvement of the cerebellum, frontal lobe and temporal lobe. In addition diffusion restriction, contrast enhancement and hemorrhage can also be seen.

Keywords: Atypical findings, MRI, cerebellum, PRESXeremperiam ra nonsenis quide endae simaxim as dunt.