Eurasian J Med 2015; 47: 66-8 The Eurasian Journal of Medicine **Case Report**

Angiofibroma from the Tail of the Inferior Turbinate

İnferior Konka'nın Kuyruğundan Kaynaklanan Anjiofibrom

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Abstract

Nasopharyngeal angiofibromas are benign and vascular neoplasms, which originate characteristically in the posterior lateral wall of the nasopharynx. They account for less than 0.5% of all head and neck tumours. Although angiofibromas extend beyond the nasopharynx usually, they rarely originate outside the nasopharynx. Reports of primary extranasopharyngeal angiofibromas have appeared sporadically in the literature. The maxillary sinus is the most common site involved, while the inferior turbinate represents an extremely rare localization. We report a case of angiofibroma which arising from the tail of the inferior turbinate in the right nasal cavity.

Keywords: Angiofibroma, tail of the inferior turbinate, extranasopharyngeal angiofibroma

Özet

Nazofarengeal anjiofibromlar karakteristik olarak nazofarinksin arka yan duvarından kaynaklanan benign ve vasküler tümörlerdir. Tüm baş ve boyun tümörlerinin %0,5'inden daha azını oluştururlar. Anjiofibromlar sıklıkla nazofarenks dışına yayılmalarına rağmen nazofarenks dışından nadiren kaynaklanırlar. Pirimer olarak nazofarenks dışından kaynaklanan anjiofibromlar literatürde tek tük bulunmaktadır. Bunlar içerisinde en sık maksiler sünüs kaynaklı olanlar görülürken, inferior konka kaynaklı olanlar son derece nadirdir. Biz sağ nazal kavitede alt konkanın kuyruğundan kaynaklanan bir anjiofibrom vakası sunduk.

Anahtar Kelimeler: Anjiofibrom, alt konkanın kuyruğu, ekstranazofarengeal anjiofibrom

Introduction

Angiofibromas are highly vascular, nonencapsulated, and histologically benign but locally aggressive tumors which most commonly arise in the nasopharynx of adolescent males [1]. They usually arise from the posterolateral wall of the nasal cavity, where the sphenoidal process of the palatine bone meets the horizontal ala of the vomer and the pterygoid process. Angiofibromas constitute about 0.5% of all head and neck neoplasms [2]. These tumors may rarely localize in extranasopharyngeal sites [1]. The maxillary sinus being the most commonly involved site [3]. The inferior turbinate represents an extremely rare localization with only 4 cases having been reported in the international literature to date. In this report, we present the rare case of a juvenile angiofibroma arising from the tail of the inferior turbinate with pedicule. This represents the first described case of an angiofibroma originating from such a location.

Case Report

A 48-year-old male patient with a one-year history of a slowly progressing right nasal obstruction. The patient had no previous history of trauma or infection. On ENT examination, anterior rhinoscopy showed a nasal septum deviation on the left side, while nasal endoscopy revealed a red- grayish colored, smooth and polypoidal mass adhering with pedicule to the tail of the inferor turbinate and filling the right choana. He had no cervical lymphadenopathy. The remainder of his head and neck examination was unremarkable. The coagulation profile was normal.

Computed tomography (CT) scan of the nose and paranasal sinuses demonstrated a soft tissue opacity that filled the choana of the right nasal cavity, with minimal displacement of the nasal bones without any sinus invasion and bony destruction (Figure 1).

The mass was excised under general anaesthesia with endoscopic surgery. The mass was excised under general anaesthesia with endoscopic surgery after taking the consent of patient. The tumour measured 3x2x1.5 cm, was smooth and red-grayish (Figure 2). After the endoscopic excision of the mass, postoperative histopathological and immunohistochemistry analyses confirmed the diagnosis of an angiofibroma.

When reviewed in clinic six month later, the patient was asymptomatic and there is no endoscopic evidence of recurrence.

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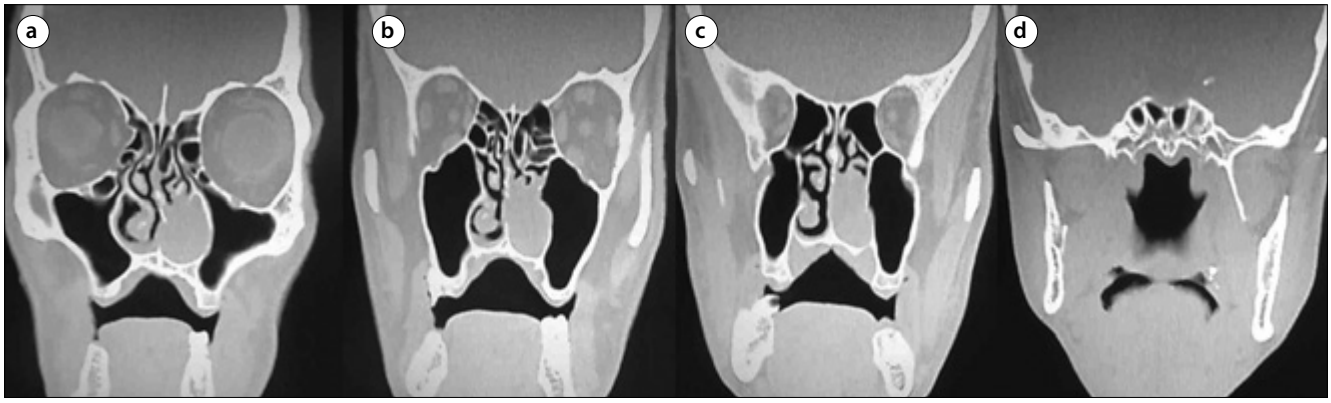

Figure 1. a-d. *The coronal sections of computed tomography scan of the mass arising from the tail of the inferior turbinate in the right nasal cavity.*

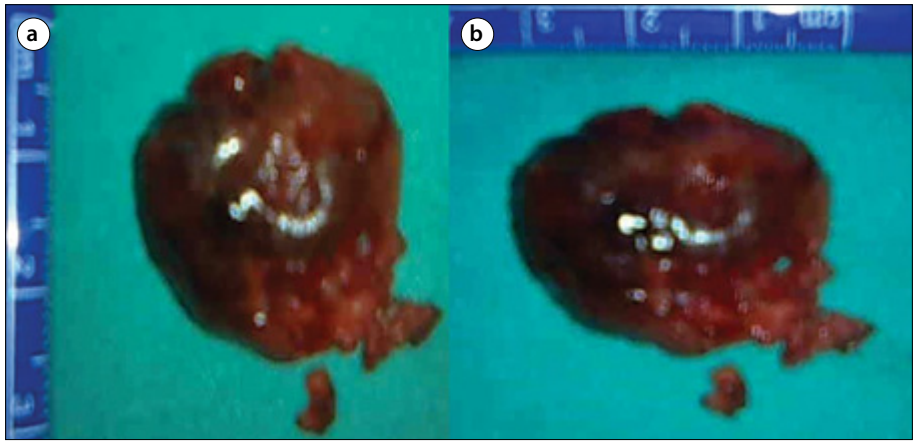

Figure 2. a, b. *Images from different angles of excised red grayish mass from measuring 3x2x1.5 cm.*

Discussion

Angiofibroma is a benign but locally aggressive vascular tumour, occurring mainly in adolescent males, age range 7-19 years and rarely seen beyond 25 years [4]. This tumour accounts for 0.5% of all head and neck tumours [5]. Angiofibroma usually originates near the sphenopalatine foramen region, later it grows in all directions through multiple projection [6]. Nasopharyngeal angiofibroma has tendency to grow through high resistance ways between the bones, instead of only occupying space [7]. More recently, the term extranasopharyngeal angiofibroma has been applied to vascular, fibrous nodules occurring outside the nasopharynx [8].

Primary extranasopharyngeal angiofibromas have been reported sporadically in the literature. They most commonly originate from the maxillary sinus. Other rare sites reported are the ethmoid sinus, sphenoid sinus, nasal septum, middle turbinate, inferior turbinate, conjunctiva, molar and retromolar region, tonsil and larynx [6, 8]. Unlike nasopharyngeal angiofibromas, extranasopharyngeal angiofibromas occur more commonly in females at later age [2]. Extranasopharyngeal angiofibromas occur in an older age group than nasopharyngeal angiofibromas; with mean ages of 22 years and 17 years respectively [9]. In our case the patient is 48 years old and male and the present mass was attached to tail of the inferior turbinate with pedicule and it was filling the right choana. However, we could not find any case of the angiofibroma of this kind in the literature in English.

The usual presentations of angiofibromas are with painless unilateral nasal obstruction, epistaxis, facial deformity expressed as fullness of cheek and proptosis. The tumour progresses gradually and can extend into infratemporal, anterior and middle cranial fossa. Angiofibromas presents as nasal mass (80%), orbital mass (15%) and proptosis (10-15%). Extranasopharyngeal angiofibromas present with variable symptoms depending on their location, but due to the restricted space intranasal tumours present earlier [5]. In our case was the only symptom of nasal obstruction.

Preoperative investigations include imaging and endoscopy [5]. Computerized tomography, MRI and arteriography are valuable diagnostic procedures in the evaluation of angiofibromas [10]. Arteriography clearly demonstrates vascular pattern and blood flow dynamics and allows preoperative selective embolization to reduce intraoperative bleeding. Computerized tomography is sufficient for diagnosis, because it clearly identifies the tumor. Endoscopic examination is warranted, but biopsy is advised for confirmation after proper homeostasis [5].

The various modalities for the treatment of angiofibromas include surgery, hormonal therapy, radiation and systemic chemotherapy [2]. Surgical excision remains the mainstay of treatment for extranasopharyngeal angiofibromas [3]. In our case, the size and the location of tumor permitted us to remove it completely, using a simple endoscopic surgical procedure, without previous selective arteriography and embolization.

Although extranasofaryngeal angiofibromas are a rare occurrence, one must keep this diagnosis in the differential for unilateral nasal masses causing obstruction. The respond to excision is very well and recurrence is rare. Though previously unreported and therefore very rare; angiofibroma which attached to tail of the inferior turbinate with pedicule is, we believe, best managed by total exision with endoscopic surgery.

Informed Consent: Written informed consent was obtained from the patients who participated in this case.

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Conflict of Interest: No conflict of interest was declared by the authors.

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