

## “Steinstrasse” in the Biliary Tract

Safra Yolunda Steinstrasse (Taş Yolu)

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The presence of a stone or stones within the common bile duct (CBD) is known as choledocholithiasis. Choledocholithiasis is reported in 3%-22% of patients undergoing cholecystectomies [1]. A confirmatory diagnosis of choledocholithiasis is made using advanced imaging, including magnetic resonance cholangiopancreatography and endoscopic retrograde cholangiopancreatography (ERCP). Treatment varies locally; however, ERCP with sphincterotomy is most commonly employed with a high degree of success. Difficult anatomy and difficult stone burden require advanced surgical, endoscopic, and percutaneous techniques to extract or expel biliary stones.

Choledocholithiasis is classified as primary or secondary based on the site of stone origin. In primary choledocholithiasis, stones are formed directly within the biliary tree, whereas in secondary choledocholithiasis, stones are originated and expelled from the gallbladder. Primary choledocholithiasis generally involves brown stones and is rare in Western populations. The stone composition in secondary choledocholithiasis parallels that in cholelithiasis, with cholesterol as the most common component [2].

“Steinstrasse” is German word for “stone street”, a term coined in the 1980s by Egbert Schmiedt and Christian Chaussy, the pioneers of extracorporeal shock wave lithotripsy (ESWL). The term describes a complication of ESWL for urinary tract calculi in which stone fragments block the ureter by forming a “stone street”. A similar stone street can sometimes be seen in the biliary tree during ERCP.

Here we report a 34-year-old female who presented with jaundice and abdominal pain.



**Figure 1.** “Steinstrasse” in the biliary tract.



**Figure 2.** Stones in the duodenum before extraction.



**Figure 3.** Stones in the duodenum before extraction.

An ultrasound showed stones in the gallbladder and bile duct. An ERCP was performed, which revealed a bulging papilla; cannulation was easy and quick. Approximately 15 stones, including one from the intrahepatic duct, were extracted in a single session (Figure 1-3). The patient recovered satisfactorily.

**Ethics Committee Approval:** Ethic committee approval was received for this study from the Ethics Committee of Edgardo Rebagliati Martins Hospital (Decision Date: 15.01.2017/Decision No: 0132-17).

**Informed Consent:** Written informed consent was obtained from patient who participated in this study.

**Peer-review:** Externally peer-reviewed.

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