A giant staghorn calculus in the biliary tract

Litiasis coraliforme gigante en la vía biliar

G. Martinez-Mier*, O. Avila-Mercado, S. Irisson-Mora

Departamento de Cirugía General, Unidad Médica de Alta Especialidad 189 Adolfo Ruiz Cortines, Instituto Mexicano del Seguro Social, Veracruz, México

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The clinical importance of biliary tract calculi is in their association with cholangitis and acute pancreatitis. Endoscopic retrograde cholangiopancreatography (ERCP) is regarded as the safest and most successful therapeutic method for extracting stones from the common bile duct. Nevertheless, large or impacted calculi that take up the entire bile duct are a therapeutic challenge. A bile duct calculus is defined as large when it is bigger than 10-15 mm. There are very few reports describing a single giant calculus (> 5 cm) in the common bile duct. We describe herein a 58-year-old woman that presented with severe acute pancreatitis. Tomography findings included a stone impacted in the bile duct, dilation of the bile ducts, and cholelithiasis (fig. 1). ERCP revealed a giant stone in the common bile duct that occupied the space up to the confluence of the hepatic ducts (fig. 2). The patient underwent a conventional cholecystectomy with bile duct exploration and a Roux-en-Y hepaticojejunostomy anastomosis, extracting a 7 x 2 cm staghorn calculus (figs. 3 and 4). The patient was released from the hospital with no complications. She is asymptomatic 6 months after surgery and her liver function tests are normal.


* Corresponding author: Corporativo San Gabriel, Alacio Pérez, 928, consultorios 313 y 314, entre Carmen Serrán y 20 de Noviembre. Fraccionamiento Zaragoza. Veracruz, CP 91910. Teléfono: +52(229)9327782; fax: +52(229)9232990.
E-mail addresses: martinez.gustavo@transplantver.com, gmtzmier@hotmail.com (G. Martinez-Mier).

Figure 1 Abdominal CAT scan showing bile duct dilation and a calculus in its interior.
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Figure 2  ERCP showing a 7 cm impacted calculus.

Figure 3  Staghorn calculus extracted from the bile duct.

Figure 4  The dilated hepatic duct sectioned (2 cm) and used as a reference point for the hepaticojejunal anastomosis.

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Conflict of interest

The authors declare that there is no conflict of interest.