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Image of the Month

Effective cholangioscopic management of a patient with type IV Mirizzi syndrome

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Mirizzi syndrome (MS), a complication of gallstones in which the common hepatic duct (CHD) is obstructed by extrinsic compression from the cystic duct or gallbladder, is classified into four types, according to the degree of cholecysto-biliary fistulization.

Surgery is the gold-standard treatment for MS. If surgery fails and/or in poor surgical candidates, cholangioscopy-guided laser lithotripsy may be a solution for types I–III [1]. No data are available regarding type IV.

An 80-year-old woman underwent endoscopic retrograde cholangiography for cholangitis with cholecysto-choledochal lithiasis. The CHD was compressed by a 35-mm voluminous gallstone, as in type IV MS (Fig. 1). A plastic stent was placed as a bridge to elective surgery; however, surgery failed due to the absence of recognizable dissection planes between the biliary tree and the gallbladder. Single-operator, per-oral digital cholangioscopy (SpyGlass DS, Boston Scientific) confirmed the impacted gallstone, fused with the CHD and gallbladder walls and thus impossible to fragment completely and remove. The stone was, therefore, tunnelized by holmium laser. Subsequently, two plastic stents were positioned, one in each hepatic duct, to achieve biliary drainage (Fig. 2). A few days later, the woman was discharged home with conservative follow-up. To date, her clinical condition is stable.

In conclusion, stone tunnelization using cholangioscopy-guided laser and subsequent biliary drainage by stenting could be considered for type IV MS, when surgery fails.

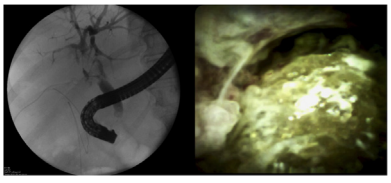

Fig. 1. Cholangiographic and cholangioscopic images showing a voluminous gallbladder stone compressing, impacting and adherent to the common hepatic duct.

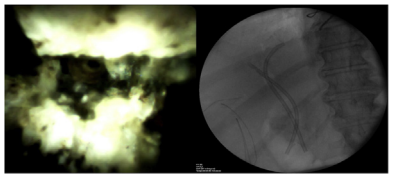

Fig. 2. Tunnelization of the stone using cholangioscopy-guided laser and final cholangiographic image of biliary drainage.

Conflict of interest

None declared.

Appendix A. Supplementary data

Supplementary data associated with this article can be found, in the online version, at https://doi.org/10.1016/j.dld.2018.08.013.

Reference

[1] Bhandari S, Bathini R, Sharma A, et al. Usefulness of single-operator cholangioscopy-guided laser lithotripsy in patients with Mirizzi syndrome and cystic duct stones: experience at a tertiary care center. Gastrointest Endosc 2016;84(July (1)):56–61.

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