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LETTER TO EDITOR

How to developed a set of methods for placing a biliary drainage tube through the cystic duct

Dear Editor,

Biliary drainage through cystic duct has been applied in clinical practice,[1,2] but there is still no optimal and reliable method to insert an externalized biliary drainage tube via cystic duct. We have developed a set of methods for this procedures and achieved good results in the drainage.

This study included 47 patients (19 male and 28 female) aged 22–81 years (averaging 53.7 years). Thirty-two patients underwent LC + biliary drainage via cystic duct + intraoperative or postoperative endoscopic stone removal. Fifteen patients underwent LC + primary suture after CBD exploration + biliary drainage via cystic duct. The Fr 5 or Fr 6 ureteral catheter or the nasal biliary catheter is used as the drainage tube, and the 12-mm Lapro-Clip (Covidien, Norwalk, CT, USA) is used to fix the cystic duct to the catheter. The 12-mm Lapro-Clip consists of an outer clip and an inner clip. The elastic inner clip is located around the cystic duct and the catheter to avoid bile leakage. The outer clip is further pressed and fixed, and the catheter was placed in the front third of the Lapro-Clip (Fig. 1). The drainage catheter is fixed by the force of the forearm of the outer clip so that the catheter cannot slip under the continuous external force of the outer clip forearm. As the catheter has certain hardness, it is not compressed, and the diameter of the Fr 5 or Fr 6 catheter also maintains the patency for drainage. The fixing force of the forearm of the outer clip ensures smooth removal of the catheter, and the cystic duct can be automatically clamped after extubation, thereby avoiding bile leakage from the residual end of the cystic duct. The average postoperative output of bile via the catheter was 295.1 mL/day (range, 55–610 mL/day). The catheter was removed within 3–9 days after surgery. None of the patients developed early complications such as bile leak, dislodgment, or occlusion of the catheter.

The modified method of placing a biliary drainage tube through the cystic duct is reliable and simple in manipulation, and early extubation can be performed after surgery. Of note, during intraoperative fixation of the cystic duct and catheter using the 12-mm Lapro-Clip, the catheter should not be placed in the middle or the rear of the clip, otherwise the catheter will be pressed and closed, losing its function of drainage, and leading to difficulties in

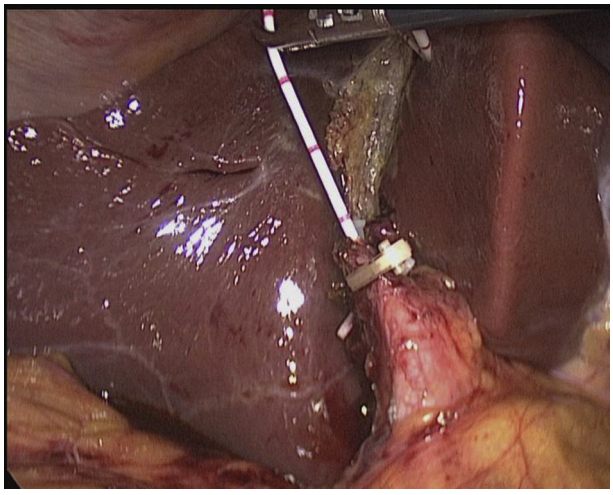

Figure 1 A 12-mm Lapro-Clip is used to fix the cystic duct and the catheter, and the catheter was placed in the front third of the clip.

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extubation. This study was approved by the Ethics Committee of the Danyang People's Hospital of Jiangsu Province, China. The patients and their families signed an informed consent form before surgery was performed.

Compliance with ethical standards

Disclosures Huiqiu Guan and Yunxia Xu have no conflict of interest or financial ties to disclose.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.asjsur.2019.02.008.

References

1. Chen CC, Wu SD, Tian Y, Amos Siwo Ernest, Zeng XT, Zhang GH. Sphincter of oddi-preserving and T-tube-free laparoscopic management of extrahepatic bile duct calculi. *World J Surg*. 2011;35:2283—2289.
2. Guan Hui Qiu, Lan Jing, Xu Suo Qing. Transcystic biliary drainage versus nasobiliary drainage during primary closure of the laparoscopic choledochotomy. *Zhonghua Wai Ke Za Zhi*. 2018;56:130—134.

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