

Endoclip papiloplasty for a patulous and incompetent biliary papilla: a therapeutic misadventure



With great interest, we have read the video case report by Fan et al,¹ “Endoclip papiloplasty for a patulous and incompetent biliary papilla” published in the July 2019 issue of *VideoGIE*. The authors describe the use of clips for a patulous papilla closure to reduce the possibility of recurrent cholangitis and stone formation after an extensive endoscopic sphincterotomy (ES) for large stone extraction. Three weeks after clipping, the authors claim that the papilla appeared competent and the pressure of sphincter of Oddi (SO) had recovered. After 7 months of follow-up, there were no recurrent stones in the common bile duct (CBD), no recurrent cholangitis, and no papillary stenosis.

Endoscopic clipping is a widely accepted indication in certain situations such as bleeding or perforation after ES. However, we dispute the use of clips to prevent cholangitis and stone recurrence because we believe that clipping is likely to increase the likelihood of adverse events. Furthermore, a surgically created biliary-enteric anastomosis, like choledochoduodenostomy, which completely removes the SO structure, has been performed for over a century and has been shown to be safe, with a low incidence of early and long-term adverse events.²⁻⁶ Therefore, we believe that there is no need to preserve SO function by clipping.

Although theoretically the papiloplasty could reduce reflux and bacterial colonization, a widely patent biliary orifice will facilitate biliary emptying and avoid cholestasis. The continuous flushing action of bile and the bacteriostatic effects of bile salts keep the biliary tract sterile under normal conditions.⁷ If the primary removed stones were formed by cholestasis, or other reasons rather than reflux, a scarred SO will prevent the spontaneous passage of bile and stone fragments, which could result in recurrence of cholangitis and CBD stones.⁸ Furthermore, a juxtapapillary diverticulum is a predisposing factor for delayed biliary emptying, and it is believed to increase the risk of recurrent CBD stones^{9,10}; therefore, a patient with such a diverticulum should not undergo endoscopic closure. Although we agree with the authors that the SO pressure may have recovered by scar formation, this is not normal muscle under neural control.¹¹ Other endoscopic procedures attempting to preserve SO function have been demonstrated to have significantly higher recurrent rates of CBD stone formation compared with those with loss of SO function.^{12,13} Finally, ES without closure attempts has been found to be safe after long-term follow-up.¹⁴

We do not recommend endoscopic closure of the SO after ES based on a single case report. Prospective trials are needed to validate this concept before its use.

DISCLOSURE

All authors disclosed no financial relationships relevant to this publication.

Abbreviations: CBD, common bile duct; ES, endoscopic sphincterotomy; SO, sphincter of Oddi.

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