



Invited Commentary

An Invited Commentary on “comparison of the safety and efficacy of single-stage endoscopic retrograde cholangiopancreatography plus laparoscopic cholecystectomy versus two-stage ERCP followed by laparoscopic cholecystectomy six-to eight weeks later: A randomized controlled trial” (Int J Surg 2020;76:37–44)



ARTICLE INFO

Keywords:

ERCP
Common biliary duct stones
Laparoscopy
Biliary duct exploration
Choledocotomy

Dear Editor,

Endoscopic retrograde cholangiopancreatography is the most common treatment for biliary tract stones, regardless of the timing (before, during or after cholecystectomy) of the procedure [1].

To be successful it requires a skillful endoscopy team, in full collaboration with surgeons. A successful cannulation of biliary duct is dependent on the team experience and high volume of procedures of the centre [2,3].

A study on 1097 ERCP procedures performed by a single operator at a single centre showed that the successful cannulation rate increased from 43% at the beginning of training to $\geq 80\%$ after 350 to 400 supervised procedures. The success rate continued to improve post training with an aggregated success rate of $> 96\%$ for the subsequent 300 procedures performed as an unsupervised operator. According to these authors, the consistent achievement of $\geq 80\%$ success at deep biliary cannulation should become a standard for ERCP training programs to produce skilled and competent therapeutic biliary endoscopists [3].

To perform the procedure intraoperatively, a high compliance of the surgical and endoscopy team is needed.

Moreover, theatre time must be taken in account. If such issues are resolved the single-stage treatment can be optimal, with improved hospitalization and patient comfort.

We would like to discuss another method of treatment of combined biliary tract stones: Laparoscopic Bile Duct Exploration (LBDE) [4].

LBDE can be useful as a primary treatment for biliary stones or after unsuccessful choledochal cannulation.

Technique: After laparoscopic cholecystectomy, an operative endoscope is inserted through a fifth trocar. The cystic duct or, alternatively, the main bile duct is cannulated through a small incision. The stones are then retrieved through choledoscopy with a Dormia basket. The cystic duct is clipped, and/or the choledochal incision sutured. A T-tube was traditionally positioned through the choledocotomy or

through the cystic duct as a protection for a patent bile duct, but in the past several years this procedure has been shown to be unnecessary, causing discomfort to patients with possible complications like T-tube displacement and bile leakage, and unnecessarily prolonging hospital stay [4].

We believe that there are both advantages and disadvantages of LBDE:

1. Advantages

Less or no exposure to radiation for both clinicians and patients.

If it is not used as a “rescue” procedure, there is no need for a papillotomy with involvement of a single (surgical) team.

For a “rescue” procedure for failed papillotomy or failed choledochal cannulation, there is no need for further additional procedures.

Less risk of pancreatitis when compared to ERCP, unless there has been antegrade instrumentation of the papilla (3).

2. Disadvantages

If cystic duct cannulation is not possible, the procedure exposes the patient to possible bile leakage, bile peritonitis and sepsis [4], although these complications are rare.

2.1. Long operative time

A word on the “involvement of a single team issue”. LBDE is NOT to be performed by gastroenterologists, as per guideline, but by experienced surgeons. It is suggested that surgeons should be trained in LBDE to decrease the number of interventions required to manage biliary tract stones, but the learning curve for a successful LBDE is steep. Even if it is an optimal treatment for common bile duct stones, it is estimated that only 20% of bile duct explorations are performed laparoscopically at the present time, probably due to the issues related to learning curve

DOI of original article: <https://doi.org/10.1016/j.ijjsu.2020.02.021>

<https://doi.org/10.1016/j.ijjsu.2020.03.062>

Received 17 March 2020; Accepted 25 March 2020

Available online 01 April 2020

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and instrumentation.

There is no evidence of any significant differences in efficacy, mortality or morbidity when LBDE is compared with perioperative ERCP, although LBDE results in a shorter hospital stay. It is recommended that the two approaches should be considered as equally valid treatment options.

3. Provenance and peer review

Invited Commentary, internally reviewed.

References

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