Primary closure versus T-tube drainage in laparoscopic common bile duct exploration: has the paradigm already changed?

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INTRODUCTION

The question of how to close the common bile duct (CBD) following of laparoscopic bile duct exploration (LCBDE) remains a topic of debate. Traditionally, the CBD is closed with T-tube drainage after choledochotomy and removal of CBD stones. With advances in laparoscopic instrumentation and acquisition of advanced laparoscopic skills primary duct closure without a T-tube has been proposed as an alternative. In recent studies primary closure has been showing less complications, shorter hospitalization stay and reduced operative times discouraging the routine use of T-tube after LCBDE.

AIM

To compare the safety and effectiveness of primary closure with T-tube drainage in laparoscopic common bile duct exploration (LCBDE) for choledocholithiasis.

METHODS

Observational, retrospective study of patients undergoing LCBDE between January 2012 and December 2018. Descriptive and statistical analysis was performed with SPSS 25.

RESULTS

67 underwent LCBDE with a transcholedochal approach
61.2% Female
64 Median age, years

Choledoscopy was executed in 49.3% of the patients

Primary closure rate was 28.4%

The T-Tube group had a higher complications rate and an inferior CBD stone clearance rate

<table>
<thead>
<tr>
<th>Complications</th>
<th>T-Tube</th>
<th>Primary closure</th>
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<td>CBD stone clearance</td>
<td>87.9%</td>
<td>90.0%</td>
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CONCLUSION

Primary closure is feasible and associated with fewer complications than T-tube drainage. Based on these results, primary duct closure may be considered as the optimal procedure for CBD closure after LCBDE. T-Tube drainage is now performed more selectively even though it provides access to the biliary system.