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Primary duct closure versus T-tube drainage after laparoscopic common bile duct exploration: a meta-analysis

Key words: Laparoscopic common bile duct exploration；Primary duct closure；T-tube drainage；Meta-analysis

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Research Summary

This study compared the safety and effectiveness of PDC and TTD after LCBDE. compared with TTD, PDC is safe and effective and can be used as the first choice after transductal LCBDE:

- A total of 1865 patients were enrolled in six randomized controlled trials (RCTs) and ten cohort studies.
- Regarding RCTs, the PDC group was significantly better than the TTD group in terms of operation time ($P<0.05$), total postoperative complications ($P<0.05$), postoperative hospital stay ($P<0.05$) and hospitalization expenses ($P<0.05$).
- Based on cohort studies of the subgroup, the PDC group had a shorter operation time, shorter postoperative hospital stay, less intraoperative blood loss and limited total postoperative complications.

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Innovation points

- Our meta-analysis included not only six RCTs, but also ten cohort studies (a total of 1865 patients).

- We chose the relative risk (RR) as the first choice, because if the incidence of events is high, the effect values obtained by the OR are often over estimated.

- Patients with a history of biliary tract surgery were excluded from the screening criteria to minimize heterogeneity.

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Figure 4