

Preventive Measures for Postoperative Bile Leakage After Central Hepatectomy: A Multicenter, Prospective, Observational Study of 101 Patients.

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Abstract:

BACKGROUND: There are no conclusive measures for preventing postoperative bile leakage (POBL).

METHODS: First, 310 patients who underwent hepatectomy were analyzed retrospectively to clarify risk factors for POBL. Then, focusing on operations at high risk of POBL, patients who underwent central hepatectomy were recruited prospectively among 18 institutions, to evaluate various preventive measures for avoiding POBL. The primary endpoint was the frequency of POBL.

RESULTS: The retrospective analysis revealed central hepatectomy and repeated hepatectomy to be independent risk factors for POBL. One hundred and one patients undergoing central hepatectomy were enrolled in the prospective study. POBL developed in 13 patients (12.9 %). Intraoperative bile leakage was recognized in 42 of the 101 patients (41.6 %), and 10 of the 42 patients developed POBL (23.8 %). Primary closure of the site of bile leakage and/or biliary drainage tube placement was preferable for preventing POBL in the patients with intraoperative bile leakage. Although 59 patients (58.4 %) did not show intraoperative bile leakage, three patients (5.1 %) developed POBL. In the group without intraoperative bile leakage, treatment with fibrin glue with a polyglycolic acid (PGA) sheet or collagen sheet coated with a fibrinogen and thrombin layer (CSFT) had good results.

CONCLUSIONS: Primary closure of the site of bile leakage and/or placement of biliary drainage tubes may be recommended in cases involving intraoperative bile leakage. Treatment with fibrin glue with a PGA sheet and/or CSFT might have preventive effects in patients without intraoperative bile leakage.