Surgical repair of bile duct injuries due to cholecystectomy

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BACKGROUND

The incidence of bile duct injury during (laparoscopic) cholecystectomy can be as high as 1.5%.

AIM

This study retrospectively evaluates the outcomes of surgical interventions for bile duct injuries arising from these procedures at a specialized referral center.

METHODS

A retrospective review of patient records was performed, focusing on the clinical presentations of bile duct injuries, the Strasberg classification system, the types of surgical repairs undertaken, and their outcomes.

RESULTS

Between 2003 and 2024, 47 cases of BDI were documented. Of these, 34% were identified during the surgery. The classification of BDI included Strasberg types B (2 cases, 4.3%), C (5 cases, 10.6%), D (11 cases, 23.4%), E1 (4 cases, 8.5%), E2 (12 cases, 25.5%), E3 (5 cases, 10.6%), E4 (3 cases, 6.4%), and E5 (5 cases, 10.6%). Among the patients, 6 (12.8%) underwent T-tube placement, 10 (21.3%) had primary repair with T-tube, and 31 patients (65.9%) received biliodigestive anastomosis. The overall complication rate was 40.4%, with major complications occurring at 21.3% and a mortality rate of 4.3%. Grade A patency was achieved in 95.6% of the patients. In the biliodigestive anastomosis cohort, the actuarial rates of grade A patency were 77.0% at one year, 70.0% at five years, and 70.0% at ten years.

CONCLUSION

The incidence of bile duct injuries remains stable. The repair outcomes regarding complications and patency rates align closely with findings from other studies.