

OE-0092 (PP-0136) Bile duct injury after laparoscopic cholecystectomy: New classification and novel approach for the management in emergency situations

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Background and Aim: This study reviews bile duct injuries most commonly found in our setup and a new classification of bile duct injury with novel management strategies according to type of injury and its presentations. **Methods:** From October 2010 to May 2018, a total of 207 patients of mean age 51 (range 30–74) years were referred to our unit with bile duct injury following or during laparoscopic cholecystectomy. Intraoperative calls as well. Laparoscopic cholecystectomy was described as “uneventful” in 45% and “difficult” in 55% patients; 22 injuries were recognized at operation. Rest patients were transferred on 7th postoperative day on an average. **Results:** Exploration and diversion with feeding jejunostomy in Types II and III—16 rest cases—FJ not done. Average time for hepatico jejunostomy—Day 62 following initial surgery. Out of 86 patients of Types II and III, only 47 patient required hepatico jejunostomy (54.6%), 1 lost to follow up, 39 (45.3%) managed successfully with ERCP + Single/multiple stents Type I—119—ERCP and stenting. One hundred eight had intraop drains, rest drained percutaneously. Deaths 2: one—Sepsis and ARDS, second—biliary fistula with liver failure. **Conclusion:** BD injury—complex problem with significant morbidity and mortality. Intraoperative recognition—Best managed in spite of severity. More complex injuries—better drained first and reconstruction later. We propose the use of endobiliary plastic stents (routinely used following ERC) for internal drainage and repair of bile duct over stent without the use of conventional T tube, and if required, later date hepatico jejunostomy can be done. ERC is used in Types I and II injury and use of multiple stents after a salvage surgery and placing intraoperative stents in 45.3% cases. In the presence of biliary sepsis and peritonitis, surgical lavage and endobiliary stenting are advisable before subjecting patients to ERC.

Keywords: bile duct, ERCP, injury, stents, surgery

OE-0129 (PP-0137) Patterns of bile duct injuries observed during endoscopic retrograde cholangiogram: 13 years of experience in a tertiary care referral center in South Asia

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Background and Aim: Endoscopic Retrograde Cholangiogram (ERC) has diagnostic and therapeutic indications in management of bile duct injuries. Data on this aspect in the Sri Lankan setting are scarce. **Methods:** Retrospective analysis of the ERC findings of patients with suspected bile duct injuries from 2003 to 2016 was done. Injuries were categorized by Bismuth–Strasberg classification (A–E). E (1–5) were considered as major injuries. Iatrogenic bile duct injuries (IBDI) were grouped under laparoscopic (LC), converted to open (LCOC), and open cholecystectomy (OC). **Results:** Over 13 years, 3567 ERCPs were performed in biliary tree and 106 patients had suspected biliary injuries, of which 93 (2.6%) were confirmed. Seventy-two (78%) were females. Mean age was 44 years (range 10–80). The majority of injuries were IBDI ($n = 87.93\%$), 46 following LC, 15 after LCOC, and 26 after OC. Trauma was the cause in six patients. In IBDI group, 47% had major injuries, with Bismuth types A–36%, D–10%, E1–9%, E2–29%, E3–13%, E4–3%. There was no difference with regard to the severity of injury in the three surgery groups. All minor injuries were managed with stenting. The need for reconstructive surgery was significantly more with major biliary injury ($P > 0.01$) and OC ($P = 0.01$) and was significantly less in LC ($P = 0.01$). **Conclusion:** According to this study, minor injuries, managed solely with stenting, are the commonest type of IBDI. However, major injuries still account for almost half of IBDI. Incidence of major injuries does not appear to have reduced by conversion, indicating that the injury occurred prior to conversion. The significant association of need for reconstruction with OC, probably reflects the case selection.

Keywords: bile duct injury, ERCP