Outcome of surgical management of LC related major bile duct injuries

Emad Hamdy Gad, Yasmin Kamel, Talat Zakaria, Mohamed Abbasy, Ali Nada and Mohamed Housseni
Menoufia University, Egypt

Aim: Laparoscopic cholecystectomy–associated bile duct injury (LC-BDI) continues to be a clinical problem with significant perioperative morbidity and reduced long-term survival for patients. The aim of this study was to analyze the outcome of surgical management of LC related major bile duct injury.

Patients & Methods: We retrospectively reviewed and analyzed 69 patients underwent surgical management of LC related major BDI in the period from mid-2011 to mid-2016. The overall male/female ratio was 31/38.

Results: Regarding BI type; the leaking, obstructing, leaking and obstructing, leaking and vascular, obstructing and vascular injuries were 43.5% (n=30), 27.5% (n=19), 18.8% (n=13), 2.9% (n=2) and 7.2% (n=5) respectively. However, external biliary fistula affected 60.9% (n=42). As regard Strasberg classification of injury, it was as follows: D=1, D, E1=2, D, E2=5, E1=22, E2=27, E3=8 and E4=4. Laparotomy, endoscopic and radiologic interventions were performed before definitive treatment in 30.4% (n=21), 50.7% (n=35) and 37.7% (n=26) of patients, respectively. The definitive procedure was as follows: 1ry repair with stent, end to end anastomosis with stent, HJ with stent, Rt hepatectomy plus biliary reconstruction with stent and HJ in 1.4% (n=1), 2.9% (n=2), 58% (n=40), 8.7% (n=6) and 29% (n=20) of patients respectively. According to time of definitive procedure from injury; the immediate (before 72 h), intermediate (between 72 h and 1.5 months) and late (after 1.5 months) management were 13% (n=9), 14.5% (n=10) and 72.5% (n=50) respectively. The hospital and one month (early) morbidity after definitive treatment were 21.7% (n=15), while, late biliary morbidity was 17.4% (n=12), however, the overall mortality was 2.9% (n=2), on the other hand, late biliary morbidity free survival was 79.7% (n=55). On univariate analysis, the following factors were significant predictors of (early) morbidity; sepsis at referral, E4 injury, associated vascular injury, Rt hepatectomy with biliary reconstruction as a definitive procedure, intra-operative bleeding with blood transfusion, liver cirrhosis and longer operative times and hospital stays. However, the following factors were significantly associated with late biliary morbidity: sepsis at referral, operations other than HJ, reconstruction without stenting, liver cirrhosis, operative bleeding and early morbidity.

Conclusion: Sepsis at referral, cirrhosis and operative bleeding were significantly associated with both early and late morbidities after definitive surgical treatment of LC related major BI.

The VITOM® imaging system for vaginal surgery

G Bernard Taylor
Carolinas Medical Center-University, USA

The vaginal surgeon is challenged with performing complex procedures within a surgical field of limited light and exposure. The video telescopic operating microscope is an illumination and imaging system that provides visualization during open surgical procedures with a limited field of view. The imaging system is positioned within the surgical field and then secured to the operating room table with a maneuverable holding arm. A high definition camera and xenon light source allows transmission of the magnified image to high definition monitor in the operating room. The monitor screen is positioned above the patient for the surgeon and assistants to view real-time throughout the operation. The video telescopic operating microscope system was used to provide surgical illumination and magnification during total vaginal hysterectomy, salpingectomy, mid urethral sling and release of vaginal scar procedures. All procedures were completed without complications. The video telescopic operating microscope provided illumination of the vaginal operative field and display of the magnified image onto high definition monitors in the operating room for the surgeon and staff to simultaneously view the procedures. The video telescopic operating microscope provides high definition display, magnification and illumination during vaginal surgery.

G.Bernard.Taylor@Carolinahealthcare.org