Iatrogenic biliary strictures

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Master (Msc) Thesis, 2001

Abstract

Iatrogenic bile duct injuries and strictures are a serious and potentially devastating complication that represent a challenge even for the most skilled biliary surgeon. The advent and widespread use of laparoscopic cholecystectomy has dramatically increased the incidence of bile duct injuries and strictures associated with cholecystectomy. Early recognition of injuries, mature clinical judgement and experienced repair of this injuries is of utmost importance to the good prognosis of the patient. The best chance for a successful repair is the first chance. The diagnosis of iatrogenic biliary injuries is first made or suspected on clinical basis, then a number of laboratory tests and imaging techniques are used to confirm and define precisely the nature of the injury. Advances in endoscopic and radiological technology have suggested wider use of non-operative options as alternative means of relieving biliary obstruction, offering an alternative to technically difficult and occasionally unsuccessful procedures. Surgical repair of biliary strictures is best achieved with a biliary enteric anastomosis; Roux-en-Y hepaticojejunostomy carried out near the hepatic hilum is currently the most recommended procedure. This study included 20 patients with iatrogenic biliary strictures. Eighteen (90%) were females and two (10%) were males. The ages of the 20 patients ranged from 25 to 55 years (mean age 40 years); all strictures in this series followed cholecystectomy, 16 open and 4 laparoscopic cholecystectomy. These strictures were recurrent. All patients had a clinical examination, liver function tests, abdominal ultrasonography, and cholangiography via PTC, ERCP or both or MRCP. Eighteen patients had a Roux-en-Y hepaticojejunostomy, one patient had hepaticocholedochostomy and ERCP treated one patient. Stenting was employed in 7 cases when we are not satisfied with mucosal approximation. Patients were monitored through the postoperative period with repeated liver function tests and ultrasound when indicated. HIDA scanning or PTC was performed prior to discharge and when needed through follow-up period. The most common complications occurred were wound infection, subphrenic and pelvic collections. Analysis of results have shown an increased incidence of postoperative morbidity in relation with fever at admission, elevated serum transaminases AST and ALT, high level strictures, the presence of a biliary fistula and undergoing more than one operative procedure. On the other hand, elevated serum bilirubin and alkaline phosphatase levels, the cause of the stricture, age 50 years and the patient’s sex were not associated with a significant risk for postoperative morbidity. Recurrent and high level strictures are associated with an increased risk of development of late complications and restenosis.

Keywords
Common bile duct, Alanine aminotransferase, Aspartat aminotransferase, Cystic duct,