MANAGEMENT OF BENIGN AND MALIGNANT BILIARY STRICTURE

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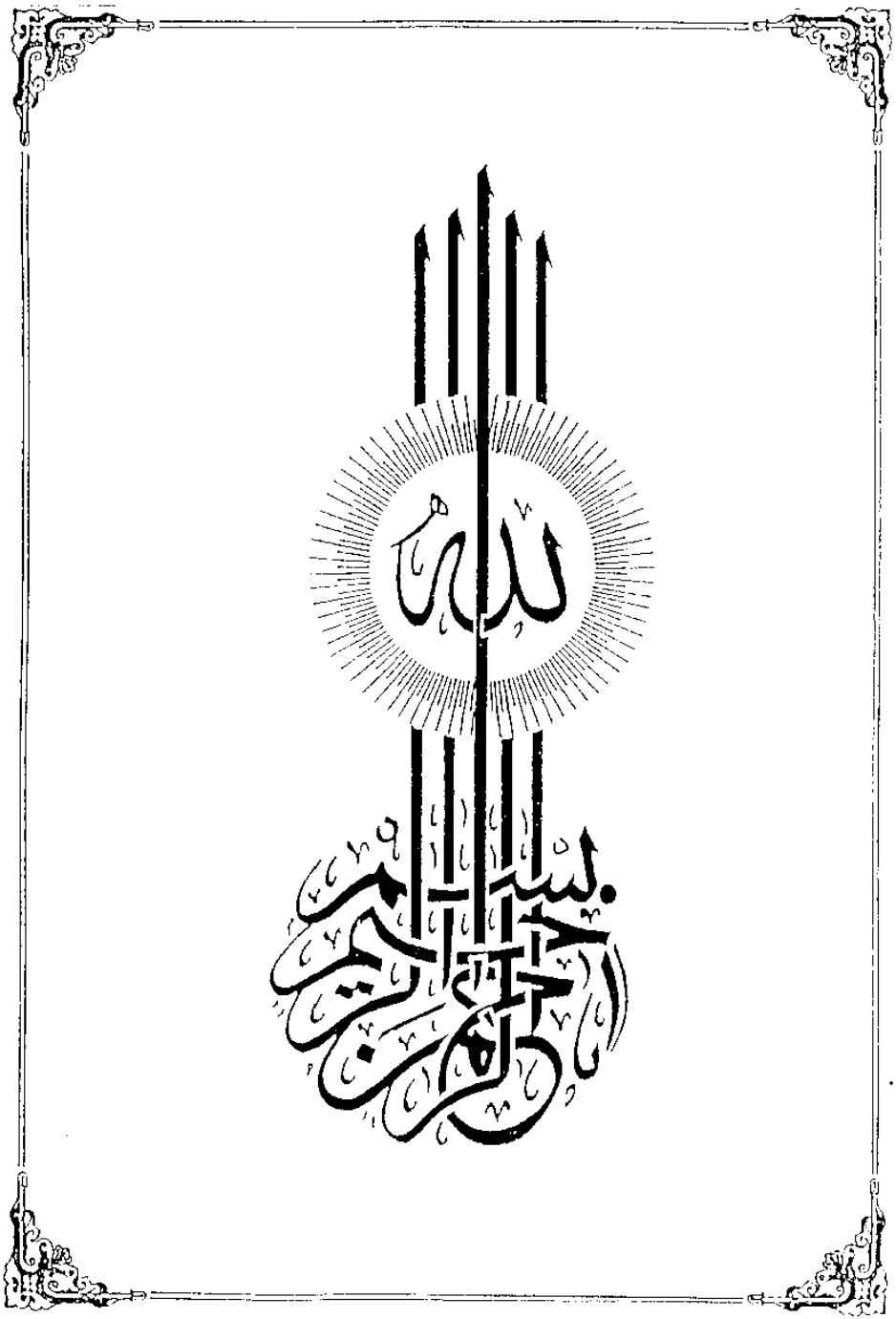

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Introduction

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Strictures of the extrahepatic biliary radicals is a challenging surgical problem , specially if it is located near to the porta-hepatis,it needs very meticulous investigations and imaging techniques . Perfect understanding of both morphological and functional anatomy of the liver, and biliary radicals , and at last a very well equipped surgical team trained for complicated biliary surgery are the basic requirments for successful outcome.

Biliary strictures are classified into two big categories either benign or malignant. Malignant strictures may be primary tumour of the ducts or as a result of their involvement by tumour of the liver , gall bladder , pancreas , papilla of Vater or duodenum . The most common primary malignant tumour of biliary duct is adeno- carcinoma(***Blumgart & Thompson , 1987***).

Bile duct carcinoma is usually clinically silent for long time and it may be many months before a patient with such a tumour demonstrates an overt clinical features (***Alexander et al .,1984)*** .

Benign strictures could be congenital as in atresia, inflammtory as in cholelithiases or chronic pancreatitis, primary sclerosing cholangitis, radiation induced strictures, papillay stenosis or it may follow bile duct injury (***Mathews& Blumgart, 1994).***

By far the most common cause is bile duct injury in the course of cholecystectomy.(***Mathews & Blumgart ,1994)***

Injuries to the biliary tree become a recognized complication of open cholecystectomy by 1979 when more than about 2400 repairs of bile duct injuries had been performed at the

Historical review

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The possibility of injury to adjacent structures has been a part of surgery since the time of the barber surgeons. From the moment on july 15, 1882, when Langenbuch performed the first planned cholecystectomy, the possibilty of injury to the biliary ducts or hepatic arteries or both existed. This misadventure was perhaps the best known of surgical accidents because it occurs during a routine operative procedure that is associated with a low mortality and morbidity and elevates the risks to high morbidity and increased mortality.

The main cause of biliary trauma is the inadequate visualization of the junction of the cystic duct and common bile duct. Its incidence has not changed much since the early years of this century despite the development of laparoscopic techniques. However, its diagnosis and treatment have changed greatly, paralleling the profound changes in areas of diagnosis and treatment of surgical disease in general ***(Braasch, 1994).***

Technical aspects

The technical aspects of biliary tract surgery developed in the late 19th century were the result of advance in anaesthesia, control of infection and advances in other operations of the gastrointestinal tract. The idea of performing an anastomosis between the biliary tract and the intestine was in 1870, and the first reported biliary tract anastomosis to the intestine was a cholecystoenterostomy in 1881 ***(Brassch, 1994).***

Then followed in succession a suggestion in (1887)that the anastomosis should feature a mucosa-to-mucosa apposition, and in 1888 a cholecystojejunostomy was reported for peri ampullay carcinoma ***(Brassch, 1994).***

The first use of a stent was in 1891 by Terrier, the first choledochoduodenostomy for calculi was in 1892 by Sprengel and the first choledochocholedochostomy for the same condition was also in the same year ***(Brassch, 1994).***

Almost all of these early procedures were performed for palliation of malignant obstruction of the common bile duct. These procedures represented a major departure from the previous practice of cholecystectomy, but eventually the anastomotic procedures is valuable because it did not leave the patient with a draining tube or fistula. In the period from 1880 to 1910, abdominal surgeons were setting the stage for resective procedures involving the biliary tract and pancreas and for the repair of damage to the biliary tract ***(Braasch,1994).***

Anastomosis

The first hepaticojejunostomy using the Roux- en- Y loop was performed and reported in 1908.Another similar case was reported in 1909, a further refinement was reported 1948 by protruding mucosal segment at the site of the anastomosis, which was thought to ensure a mucosa-to-mucosa anastomosis. This long segment of mucosa, tunneled through the scar to the proximal bile duct, had no visible blood supply or support from the other layers of the jejunal wall. Smith subsequently modified this technique and created