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شبكة المعلومات الجامعية التوثيق الالكتروني والميكرو فيلم



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RETAINED STONES IN THE COMMON BILE DUCT

AN ESSAY

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degree (M.Sc.) in General Surgery**

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INTRODUCTION

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Choledocholithiasis is a condition that general surgeons face numerous times during their surgical careers. Typically they will encounter it during cholecystectomy and traditionally, will remove the offending stones with Desjardin's forceps, a Fogarty catheter, by flushing or by other procedures. They may perform choledochoscopy to check whether all stones have been removed and will almost certainly place a T tube in the common bile duct. Seven to ten days later a T tube cholangiogram will be performed and provided no stones remain, the T tube will be removed and the patient discharged from hospital. If all goes according to plan the mortality in a fit patient is less than 1 percent. If stones remain, or if the problem is complicated by jaundice, cholangitis, bile duct stricture previous biliary surgery or medical infirmity, the mortality rises considerably and can reach 12 percent in young patients and 20 percent in older patients. During the last 10-15 years there have been a number of advances in the management of the patient with choledocholithiasis with the overall aim of reducing the complications and mortality associated with this condition. [Johnson and Hosking 1990].

The biliary surgeon in the 1990s must be familiar with all of the available techniques for the treatment of bile duct stones. Experience and judgment are important in the successful management of the individual patient with intrahepatic or

extrahepatic stones. knowledge of non surgical methods of removal is important in the decision making process. however, the biliary surgeon must resist the temptation to do less than a thorough removal of all stones at the operation lest the patient be subjected to additional procedures, which carry their own risks of morbidity and death. The goal should be to clear the stones from the biliary system with the fewest procedures offering the lowest morbidity and mortality risks to the patient.[Tompkins 1990].

ANATOMY OF THE BILIARY TRACT

ANATOMY OF THE BILIARY TRACT

1- Normal anatomy :-

RT and LT hepatic ducts

the common hepatic duct

The gall bladder

The cystic duct

The common bile duct

2- The vascular supply

3- The lymphatic drainage

4- The nerve supply

5- Anatomical anomalies.

- The arterial anomalies.

- Variations in the bile ducts

6- The important anomalies and their significants

Normal Anatomy :-

The right and left hepatic ducts :-

In each individual liver segment, the smaller bile ducts unite to form a single channel called the segmental bile duct [Linder 1987]. The intrahepatic segmental bile duct unit to form lobar ducts which in turn coalesce to form the right and left hepatic ducts that represent the beginning of the extra hepatic biliary system. The left hepatic duct is longer than the right and has a greater propensity for dilation as a consequence of distal obstruction [Schwartz 1994].

In about 95 percent of cases the right and left hepatic ducts unite in an extrahepatic position just inferior to the porta hepatis. In the remainder their union is infra hepatic. The usual extrahepatic length of each hepatic lobar duct varies from 0.5 to 1.5 cm. [Linder 1994].

Depending upon their extrahepatic length, the right and left hepatic ducts may join at a wide angle or an acute angle, or they may descend parallel to each other for a variable distance before joining. Usually, however the two ducts unite about 1 cm below the porta hepatis to form the common hepatic duct [Linder 1994].

The common hepatic duct :-

The common hepatic duct, which begins at the confluence of the right and left hepatic duct is 3 to 4 cm in length. It is joined by the cystic duct to form the common bile duct [Schwartz 1994].

The gallbladder :-

The gallbladder is a pear shaped organ adherent to the under surface of the liver in a groove separating the right and left lobes. It holds about 50 ml of infarction bile when fully distended. It is divided into four anatomic portions :- funds, corpus or body, infandibulum and neck [Schwartz 1994].

The cystic duct :-

The cystic duct connects the neck of the gallbladder to the common hepatic duct. It is about 5 cm long but its length may vary markedly from 0.5 To 8 cm. depending upon its site and mode of junction with the hepatic duct. The circumference of the duct varies from 3 To 12 mm and the larger ducts may allow gallbladder stones to enter the common bile duct. [Linder 1994].

The lumen of the cystic duct contains a thin mucosal septum, The spiral valve of heister, That offers mild resistance to bile flow.