

## Introduction

Detection and removal of C.B.D stones as well as prevention of retained and recurrent stones remain a major challenge to contemporary biliary surgeons. The C.B.D is explored in approximately 15% of all cholecystectomies and stones are removed in approximately 65% of these explorations. The incidence of concomitant choledocholithiasis varies between 8 to 15%. While retained stones after C.B.D exploration were usually reported in the range of 4 to 7% and the adjunct of routine post-exploratory cholangiography and/or choledochoscopy has contributed to a decreased incidence of less than 5% (*Edmundowicz, 1995*).

If a stone (or stones) is present in the C.B.D, its removal should have priority over cholecystectomy. Should the patient be unfit for cholecystectomy, or even cholecystostomy, the gall bladder should be removed on a future occasion. In particular, this may be the cases in suppurative cholangitis (a living problem is better than a dead cremate). Recent evidence suggests that subsequent cholecystectomy may not be necessary. For example, after endoscopic removal of stones, only 10% of patients will have subsequent problems in their gall bladders (*Russel, 1992*).

Patients with C.B.D stones may have one or more of the following principal clinical findings, biliary colic, cholangitis, jaundice and pancreatitis. In addition, there are, usually, the findings of chronic calculous cholecystitis. It seems likely, however, that many as 50% of patients with choledocholithiasis remain asymptomatic (*Way, 1991*).

Preoperative diagnosis is valuable in permitting planning of a treatment strategy which takes account of such factors as the patient's general condition, the presence of benign or malignant disease, the extent of the disease process, its amenability to operative correction and the availability of alternative non-operative methods of management. Such full preoperative diagnosis will also facilitate informed discussion with the patient and his relatives, and allow a reasonable assessment of the prognosis, operative risks, and therapeutic alternatives.

The majority of approaches to biliary obstruction now rely heavily upon radiological imaging techniques. However, non-imaging methods remain important in initial assessment of these patients. A careful and thorough history and examination may suggest the diagnosis in a proportion of cases with biliary tract obstruction, and may direct the sequence of radiological investigations.

In order to reduce the morbidity and mortality rate associated with open C.B.D exploration, *Rijna et al.,1995* introduced a policy of pre-operative E.R.C.P to identify and retrieve C.B.D stones in a selected group of patients. The selection for E.R.C.P included different criteria : clinical (acute cholangitis, obstructive jaundice, gall stone pancreatitis), biochemical (increased hepatic enzyme levels) and ultrasonographic (width of the C.B.D more than 7 mm or the presence of stones). These criteria were adopted because of the correlation with the presence of C.B.D stones found in several studies.

Endoscopic sphincterotomy for the treatment of complications related to common bile duct stones is steadily becoming more widely available and accepted. This is not only so in those patients who have previously undergone cholecystectomy, but also in patients with intact gall bladder (*sackier, 1993*).

Although a relatively new operative procedure, laparoscopic cholecystectomy (LC) has been rapidly adopted as the new gold standard therapy for symptomatic cholelithiasis. There are few absolute contraindication to L.C. Many relative contraindications exist, which relate to the surgeon experience and the ability of the operating team to manage potential complications (*Shedid et al., 1995*).

*The aim of this work* is to compare the outcome of the surgical management of common bile duct stones with those of endoscopic sphincterotomy management followed by laparoscopic cholecystectomy after 2-4 weeks. Then we are going to evaluate these results, and then deduce the indications and efficacy of each methods as regard morbidity, mortality, hospital stay and cost effectiveness.