

Research Article

Is Endoscopic Sphincterotomy an Adequate Treatment for Symptomatic Gall Stone in Bile Duct in Elderly Patients with an Asymptomatic Gall Bladder?

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Abstract: The management of symptomatic gall bladder is well defined. However, treatment of symptomatic gallstone disease with an asymptomatic gall bladder is still controversial. This study looks at the need for routine cholecystectomy in elderly patients (>70 years old) within this clinical group. The study was a retrospective review of all Endoscopic cholangiopancreatography (ERC) and endoscopic sphincterotomy (ES) procedures from endoscopy data base. Of 928 ERC examinations 16 patients were identified for further study (Patients > 70 years old, asymptomatic gall bladders and where a conservative management had been undertaken). Average age was 74.5 years old and they all represented a significant operative risk. ERC and ES were successful in treating all patients and after a mean follow up of 17 month (Range 5 – 56 months) only 3 patients went on to require cholecystectomy at a later date due to symptomatic gall bladder. This study suggests that ERC and ES is sufficient treatment in elderly patients with symptomatic gallstone in the bile duct with an asymptomatic gall bladders, and questions the need for routine cholecystectomy.

Keywords: CBD stones, ERCP, Cholangitis, Pancreatitis, High risk patients

INTRODUCTION

The non-operative management of asymptomatic gallstone disease is well established [1, 2]. Current treatment of gallstone disease associated with deranged liver function, jaundice, cholangitis or pancreatitis but with an asymptomatic gall bladder, is Endoscopic retrograde cholangiography (ERC) and endoscopic sphincterotomy (ES) for ductal clearance followed by cholecystectomy [3-5]. The aim of the study is to see whether ERC and ES alone is an adequate treatment for symptomatic gall stone in bile duct, in the presence of an asymptomatic gall bladder, in a selected group of patients at high operative risk.

METHODOLOGY

The endoscopy database was searched for patients' under-going ERC, From this data patients documented to have common bile duct stone were identified. It was then possible to select all patients over 70 years of age, who underwent ERC +ES for complicated gall stone disease. These patients' clinical notes were then analysed further to collect patient demographic details, indications for ERC and ES, management decisions and follow-up data.

RESULTS

During the time period of this study some 928 ERC examinations were carried out. This accounted for 16

patients within the sub group of interest (Fig. 1) defined as elderly (>70 years old, with asymptomatic gall bladder disease). In this sub group there was a male preponderance with a median age of 74.5 years old (Table 1).

The indications for ERC were those expected in choledocholithiasis (Fig. 2). These patients had either significant operative risk or declined surgery (Table 2). Patients were followed up for a mean of 17 months (range 5-56 months).

ERC and ES were performed in all patients. 3 patients required repeat ERC to achieve ductal clearance. One patient was stented, and stent was removed after 2 months, once ductal clearance had been achieved. One patient develop mild pancreatitis after ERC, which resolved completely on conservative treatment. 2 patients died 7 months after ERC and ES due to unrelated causes. 3 patients develop cholecystitis 20, 46 and 46 months after ERC and ES, and all three underwent subsequent cholecystectomy. One patient developed biliary colic after 8 months, which was, successfully, managed conservatively.

During the follow up period none of the patients developed any recurrence of conditions for which initial ERC and ES was performed.

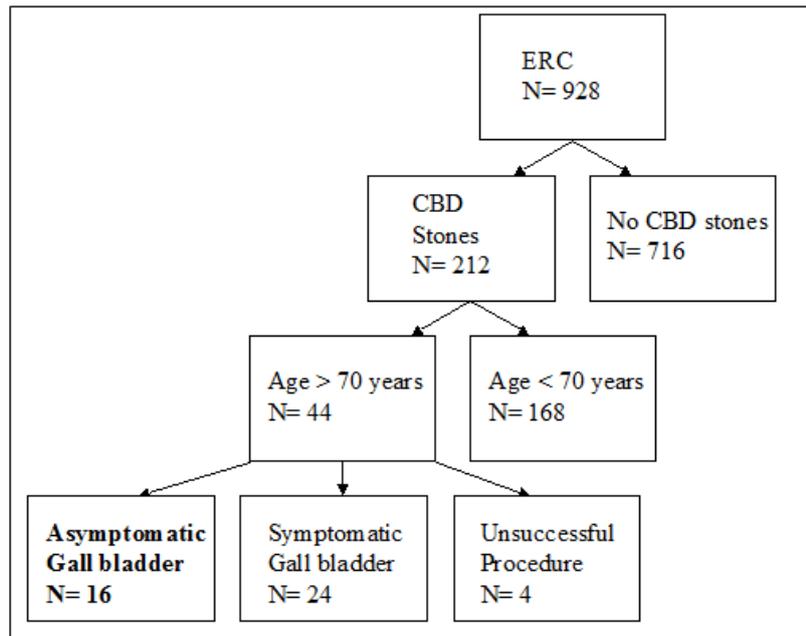


Fig. 1: Breakdown of ERC procedures (CBD-Common bile duct)

Table 1: Demographic data

Total No. of patients	Sex	Age
16	Male -- 10 Female-- 6	Range: 70- 90 year Median: 74.5 years

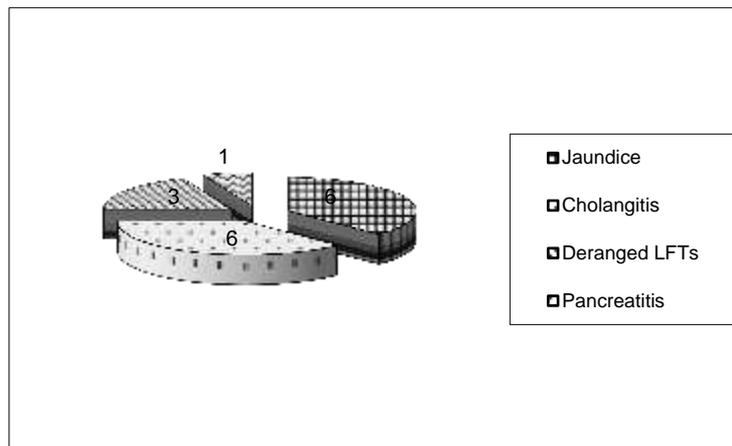


Fig. 2: Indication for ERC

Table 2: Reason for conservative treatment

Co-morbid disease	10
Declined surgery	3
Advance age	3

DISCUSSION

Asymptomatic gallstones are usually managed non-operatively. Several longitudinal studies have shown that approximately 10-20% of the patients with 'silent' gall stones will go on to develop symptoms usually biliary colic. More serious symptoms such as acute cholecystitis develop at a rate of 1-3% / year [6-8]. Treatment for symptomatic gallstones includes

endoscopic and surgical options. ERC has been proven to be safe and effective even in the elderly [9, 10].

Current management of symptomatic gallstone in bile duct in the presence of an asymptomatic gall bladder is endoscopic ductal clearance followed by cholecystectomy [3-6]. However, the requirement for subsequent cholecystectomy after common bile duct

stones have been managed by ERC is controversial. The evidence to suggest that routine cholecystectomy should be performed is lacking. Currently, however in the presence of an asymptomatic gall bladder, patients who have had with cholangitis [11] or acute pancreatitis [12] but not necessarily all patients with CBD stones [13].

A laparoscopic cholecystectomy is recommended.

Gall stones in the bile duct produces symptoms secondary to common bile duct obstruction, which usually occurs at ampullary region. The aetiopathogenesis of gall stone pancreatitis, as shown by Acosta and Kelly [14, 15], is transient obstruction of the common channel of bile duct and pancreatic duct during passage of a stone. An adequate sphincterotomy opens up the ampullary region of the common bile duct, which facilitates easy passage of gallstones into the duodenum without causing any obstruction at this site. Kaw M et al has shown that recurrent pancreatitis is rare after ERC and ES alone [16].

Laparoscopic cholecystectomy in elderly patient carries increased chance of conversion to an open procedure and the presence of co-morbidity means that risk of intra and postoperative complications are also relatively high [17-19]. This pilot study suggests that ERC and adequate ES is an effective treatment for symptomatic gallstone in bile duct with an asymptomatic gall bladder in elderly patients and questions the need for routine cholecystectomy. A larger, prospective, study should be undertaken to clarify these findings.

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