

**Conclusion** While the presence of infected necrosis or persistent organ failure in SAP (group III) is associated with high mortality, the combination of “infected necrosis and persistent organ failure” (group IV) is uniformly fatal. Further research is necessary to confirm the findings in our study and to explore ways of optimising patients in group III to improve survival.

**Competing interests** None declared.

**PWE-136 PRE-OPERATIVE ERCP, CHOLECYSTITIS AND MALE GENDER ARE THE MAJOR PREDICTORS OF DIFFICULT CHOLECYSTECTOMIES/CONVERSION TO OPEN SURGERY**

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**Introduction** Conversion to open surgery used to be a marker of difficult cholecystectomy. With increasing experience conversion rate has reduced significantly, but the difficulties remain the same. Both, conversion and difficult cholecystectomy have impact on operation time. The aim of this study is to identify the major predictive factors for “difficult” cholecystectomies, which are either continued laparoscopically or subsequently converted.

**Methods** A retrospective review of all the consecutive laparoscopic cholecystectomies, performed by a single surgeon, in a district general hospital in the UK, from January to December 2011, was undertaken. Association of intra-operative difficulties or conversion to open surgery, with the following factors was studied—Age, gender, liver function tests, jaundice, cholecystitis, pre-operative ERCP, pancreatitis, and radiological findings.

**Results** During the study period 180 patients underwent cholecystectomy, of which 10 were converted to open surgery (5.6%), while 30 (16.6%) others were deemed “difficult dissections” but the operations were still completed laparoscopically. Previous cholecystitis (n=45) seems to be the most important predictor of difficulty, with 71% of patients requiring conversion or being considered a “difficult dissection.” Another very useful predictor is previous ERCP (n=14), with 64.5% of these patients being either conversions or “difficult dissections.” The conversion rate and difficult laparoscopic dissection rate was 8% and 24% respectively for men (n=37) and 5% and 15% for women (n=143). Among the patients with previous pancreatitis, none required conversion and 29% had difficult dissections. The conversion and difficult dissection rates increased with age (7% and 4% for age<40, 20% and 1% for age 40–60, and 20.5% and 9.5% for age>60 respectively).

**Conclusion** Bile duct stones managed with pre-operative ERCP, cholecystitis and male gender appear to be the major predictors of difficult cholecystectomies/conversion to open surgery. This ability to predict the difficulty of the procedure might help the surgeon prepare for any technical difficulties that may arise, organise the theatre list more efficiently, and offer the patient more accurate information and counselling prior to the procedure.

**Competing interests** None declared.

**PWE-137 THE ROLE OF <sup>99m</sup>TECHNETIUM-LABELLED HEPATO IMINO DIACETIC ACID (HIDA) IN THE MANAGEMENT OF BILIARY PAIN**

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**Introduction** Biliary pain is a common presentation in the acute surgical take and the surgical clinic. In patients with normal

ultrasound findings, symptoms can sometimes be disregarded as being non-specific. We propose that in this cohort, a HIDA scan is a useful investigation, and patients with a positive test have good results following cholecystectomy.

**Methods** We obtained reports of all HIDA scans with an abnormal ejection fraction (EF <40%) performed in our centre from 15 May 2007 to 28 December 2010. This database was cross-linked with a prospectively-maintained database and electronic records of patients undergoing cholecystectomy in the same period. All patients with a positive HIDA who went on to have laparoscopic cholecystectomy (LC) were followed-up by a review of the electronic records, and a telephone interview to assess symptom improvement.

**Results** 50 patients were investigated. Mean age was 48, and majority were female. Ultrasound findings revealed no stone disease and normal gall bladder in 96%. 92% of patients were happy with the decision to proceed with LC, and 87.5% felt that their symptoms were improved (62.5% “Very Much Improved”). Post-operatively, 56.3% had no residual pain whatsoever and 31.3% had only occasional mild discomfort. The histology was pathological in 83%; 29% had stones in the gall bladder. During the HIDA scan, injection of a CCK-analogue caused pain in 56%. Symptoms were “Very Much Improved” after LC in 74% and 44% respectively in the responders and non-responders to CCK-analogue injection. The sensitivity of CCK-analogue injection was 68% and specificity was 50%.

**Conclusion** HIDA scan is a useful clinical tool in the diagnosis and management of patients with typical biliary pain and normal ultrasound. Outcomes following LC in this cohort of patients are favourable, with high patient satisfaction. The injection of a CCK analogue is a sensitive adjunct to the test, but non-response does not rule out benefit from LC.

**Competing interests** None declared.

**PWE-138 THE INCIDENCE AND MANAGEMENT OF CYSTIC DUCT STONES: THE INTRA-OPERATIVE CHOLANGIOGRAM IS MORE THAN JUST A DIAGNOSTIC TOOL**

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**Introduction** Use of the Intraoperative cholangiogram (IOC) was introduced by Mirizzi in 1931, who recommended its routine use. Currently, routine IOC during laparoscopic cholecystectomy (LC) remains a controversial issue. Unsuspected common bile duct (CBD) stones are reported in only between 2% and 3% of cases, whereas “post-cholecystectomy syndrome (PCS),” is reported in 10% - 40%. A potential cause of this is retained stones within the cystic duct (CD) remnant. We aimed to identify the intra-operative incidence of CD stones and the incidence of post-operative complications following routine IOC.

**Methods** We analysed a prospectively maintained database of all LC and routine IOC performed by the senior author. Since 7 April 2010, the incidence of CD stones/sludge was prospectively recorded—once the incision on the CD had been made, the CD and the CBD were “milked” in a retrograde fashion to remove any debris prior to introduction of the catheter for IOC. Impacted CD stones were crushed laparoscopically. We also analysed the entire database prospectively collected since 1999 for the incidence of CBD stones. T-test (continuous) and Chi<sup>2</sup> (categorical) tests were used to analyse predictors of CD stones.

**Results** 248 LC with IOC had been recorded from 7 April 2010. In this cohort, the incidence of CD stones was 13% (N=33/248) and CD sludge was 6% (N=15/248). The presence of CD stones was not