

Methods Records of cases undergoing ERCP between November 2008 and November 2011 were retrospectively reviewed. Only patients who were in the intensive care unit requiring ventilatory and/or inotropic support and general anaesthesia for stabilisation at the time of ERCP were included. Data collected included indications, co-morbidities, technical success and 30-day mortality.

Results A total of 2237 ERCPs were performed during this period, out of which 36 (2%) emergency ERCP's were performed in 32 patients. There were 15 males and 17 females. 27/32 patients (84%) had not had previous ERCP. The median age of patients was 79 years (range 42–89). ASA grade prior to the presenting illness was 1 in 6 (17%); 2 in 15 (42%); 3 in 15 (42%). All cases were performed under general anaesthesia in emergency theatre. 27/36 cases (75%) required inotropic support. Indications included cholangitis 28/36 (78%); acute pancreatitis with cholangitis 5/36 (14%); post-operative bile leak 3/36 (8%). Biliary cannulation was achieved in all cases (100%). Endoscopic findings included: common bile duct (CBD) stones in 26/36 (72%); bile leak in 3/36 (8%); CBD stricture in 2/36 (6%); Mirizzi's in 1/36 (3%); blocked plastic stent in 1/36 (3%) and post-sphincterotomy bleed with clot obstruction in 1/36 (3%). Sphincterotomy was performed in 25/36 (69%) cases. 23/36 (64%) patients had stent insertion and in 11/36 (30%) patients balloon trawl was sufficient to clear the ducts. A rapid reduction in bilirubin was observed within 24–48 h following ERCP (Pre ERCP bilirubin: median 104, range 9–553 mmol/l; post ERCP bilirubin: median 29.5 range 12–217 mmol/l $p < 0.001$ (Wilcoxon Signed rank test). 30-day mortality was 25% (8/32 patients) and the majority of these patients (6/8, 75%) died within 24 h of ERCP due to overwhelming sepsis. There was a single case of post sphincterotomy bleed that required a repeat procedure due to clot obstruction. There were no other procedure related complications. The median length of hospital stay was 21 days (range 2–49).

Conclusion Although the 30-day mortality remains high due to multi-organ dysfunction, ERCP is successful in majority of these patients and translates to a good outcome for this cohort of critically ill patients, in whom the prognosis is inevitably poor without an emergency ERCP.

Competing interests None declared.

PWE-152 PALLIATIVE BILIARY STENTING; NOT SO PALLIATIVE IN MANY CASES!!

doi:10.1136/gutjnl-2012-302514d.152

V Vemala,* P Premchand. *Department of Gastroenterology, Queen's Hospital, London, UK*

Introduction Palliative biliary stenting has been practiced widely to treat symptomatic patients with non-resectable pancreatic carcinoma and other forms of cancers obstructing the biliary system. We have undertaken this study to assess the outcome of this practice in these patients especially who are on end of life care and to assess whether biliary interventions on occasions cause or hasten death.

Methods We retrospectively studied 160 consecutive patients who had ERCP (Endoscopic Retrograde Cholangiopancreatography) from October 2010 to October 2011 at Clinical Diagnostic Unit, Queen's Hospital, Romford, London. Data were collected using Scorpio data (GI reporting tool) on demographic variables, aetiology, type of cancer, Patients symptomatology pre and post procedure, Liver function tests (Cyberlab), complications secondary to ERCP, 30-day mortality post ERCP.

Results Of the 160 ERCP patients, 12 (7.5%) had 30-day mortality post ERCP. One patient could not be stented due to technical reasons. Of the 12 patients 11 had Metastatic Ca that is, Pancreas (5), Breast (2), Oesophagus (1), Cholangiocarcinoma (1), Lung (1), unknown primary (1). Of the cancer patients 6 (11) were male and 5

(11) were female with a mean age of 70.7 years. Seven of those patients had a presenting complaint of severe abdominal pain not fully controlled with opiates, all 11 (11) patients had varying degree of deranged liver function tests predominantly cholestatic picture, 3 (11) patients had SIRS (Systemic Inflammatory Response Syndrome). Technical failure to place the stent occurred in 1 patient. Post ERCP 6 (11) were symptomatically better on discharge, 4 (11) had worsening of their symptoms, Baseline bilirubin was 213 $\mu\text{mol/l}$ with 7 days post ERCP bloods showed improvement with mean bilirubin of 73 $\mu\text{mol/l}$ in four patients (11), ALP of 6 (11) and conversely rest of the patients showed worsening LFT's. 30 days mortality showed four patients died in hospital, two in hospice and five at home. All three patients with SIRS died within 1-week post ERCP.

Conclusion Malignant biliary obstruction has significant mortality. Identification of patients with SIRS is important as these patients have very high mortality and may not improve from ERCP and biliary interventions. Older age >65 years and more advanced disease were related with higher mortality despite interventions. This series suggest better selection of patients for biliary interventions in advanced metastatic cancers.

Competing interests None declared.

PWE-153 SINICALIDE CHOLESCINTIGRAPHY IN PATIENTS WITH SUSPECTED GALL-BLADDER DYSKINESIA: ASSESSMENT OF ALTERNATIVE FUNCTIONAL PARAMETERS AND POSSIBLE ROLE IN PATIENT SELECTION

doi:10.1136/gutjnl-2012-302514d.153

¹V Rao,* ²E Papadopoulos, ¹N Baqai, ¹A Kaleem, ²G Wright, ¹K Wedgwood. ¹Department of Surgery, Castle Hill Hospital, Cottingham, UK; ²Department of Nuclear Medicine, Castle Hill Hospital, Cottingham, UK

Introduction Gallbladder ejection fraction (GBEF) from sinicalide cholescintigraphy is frequently used as an index for referring patients with gallbladder dyskinesia for cholecystectomy. Many studies have reported the cut-off point used (GBEF $\leq 35\%$) to be arbitrary and a significant number of patients who undergo cholecystectomy on this criteria remain symptomatic even after surgery. The aim of this study is to examine alternative parameters for quantification of hepatobiliary scintigraphy.

Methods 81 patients who were investigated with sinicalide cholescintigraphy (including GBEF_{max} estimation) were reviewed at 6–18 months. GBEF at 10 min (GBEF₁₀), peak emptying rate, time to peak emptying rate and area under the curve (AUC) were calculated. These parameters were compared between the groups of patients remaining symptomatic and asymptomatic post-operatively and in those who did not undergo surgery. Student t test was used to compare group means.

Results 40/81 patients had abnormal GBEF_{max} ($\leq 35\%$). 31/40 patients underwent laparoscopic cholecystectomy along with 10/41 patients with a normal GBEF_{max}. 12/41 patients (29%) remained symptomatic post-operatively. There were significant differences between symptomatic and asymptomatic patients of the surgery group for GBEF₁₀ (13% vs 22%, $p=0.03$), peak emptying rate (-0.03 cpm^2 vs -0.05 cpm^2 , $p=0.01$) and AUC (0.88 counts vs 0.81 counts. $p=0.047$). These parameters were more "normal" in those patients who benefited from surgery. No significant differences were found between symptomatic and asymptomatic patients from the non-surgery group or patients with normal vs abnormal histology.

Conclusion Patients who remain symptomatic after laparoscopic cholecystectomy for gall bladder dyskinesia have more abnormal values in the above mentioned alternative parameters implying an inherent abnormality in biliary tract function. Hence we propose

that these parameters may be useful to identify patients with gall bladder dyskinesia who will benefit from cholecystectomy.

Competing interests None declared.

PWE-154 PRIMARY DUCT CLOSURE AFTER LAPAROSCOPIC BILE DUCT EXPLORATION FOR CHOLEDOCHOLITHIASIS IS A SAFE AND EFFECTIVE APPROACH

doi:10.1136/gutjnl-2012-302514d.154

¹Y Khaled, * ¹D J Malde, ^{1,2}B J Ammori. ¹General Surgery HPB unit, North Manchester General Hospital, Manchester, UK; ²The University of Manchester, Manchester, UK

Introduction The common bile duct is traditionally managed with T-tube drainage after choledochotomy and removal of common bile duct (CBD) stones, but this approach carries an associated tube-related morbidity rate, including bile leak, of 10.5–20%. This study examines the safety and effectiveness of laparoscopic CBD exploration (LCBDE) followed by primary duct closure.

Methods This is a retrospective analysis of 94 consecutive patients (27 male) who underwent LCBDE between October 2002 and December 2011. The duct was primarily closed in all patients. The results shown represent the median (range).

Results All procedures were completed laparoscopically. The maximum diameter of the CBD was 9.7 (3–30) mm, and it was dilated in 93% of patients. The number of CBD stones was 2 (0–20). The exploration was transcystic in 14 patients and trans-CBD in 80 patients. The biliary tree was clear at the end of exploration with no subsequent evidence of retained stones in 92 patients (97.8%). The operating time was 117 (22–395) min. Postoperative bile leak occurred in four patients (4.5%) who were managed successfully with re-laparoscopy and suturing of the choledochotomy (n=2), laparoscopic insertion of biliary stent (n=1) and conservatively (n=1). The overall morbidity rate was 8% and included pulmonary complications (n=3), cholangitis (n=2), myocardial infarction (n=1) and wound infection (n=1). There were no operative deaths, and the postoperative hospital stay was 1 (0–51) day. At a follow-up of 48.2 (24–82) months, 92.5% of patients (n=87) had no biliary symptoms, one patient required endoscopic extraction of a retained stone, one developed bile duct stricture that was managed successfully by endoscopic balloon dilatation, and four patients (4.5%) failed to attend the follow-up.

Conclusion Primary duct closure following LCBDE is safe, and can be employed as an alternative to T-tube insertion with short hospital stay and lower morbidity rate.

Competing interests None declared.

PWE-155 THE SAFETY AND EFFICIENCY OF LAPAROSCOPIC LIVER RESECTION FOR BENIGN AND MALIGNANT LIVER DISEASES

doi:10.1136/gutjnl-2012-302514d.155

¹Y S Khaled, * ¹D J Malde, ¹R Deshpande, ¹N de' Liguori Carino, ^{1,2}B J Ammori. ¹General Surgery HPB unit, North Manchester General Hospital, Manchester, UK; ²The University of Manchester, Manchester, UK

Introduction Advances in technology and techniques facilitated the development of laparoscopic liver resection (LLR). The study is aimed at the evaluation of the feasibility and effectiveness of LLR for benign and malignant pathology.

Methods This is a retrospective study of 61 patients (27 female) aged 63 (25–83) years who underwent LLR for benign (n=9) and malignant (n=52) between 2003 and 2011 in a single UK tertiary centre. The results shown represent median (range).

Results Surgery was completed laparoscopically in 60 patients (98.3%) and converted to open due to extensive abdominal adhesions in one patient. The procedures performed included the resection of one segment (n=16), two segments (n=36) and three segments (n=9). The overall operative morbidity was 8.5% and there was no mortality. The operating time was 162 (50–300) min. The estimated blood loss was 110 (25–1100) ml and two patients received blood transfusion. The postoperative hospital stay was 3.6 (1–14) days. The resected malignancy in 52 patients included metastases in 47 patients (44 colorectal adenocarcinoma, three others) and hepatocellular carcinoma (n=5), and the R0 resection rate was 86.6% (n=45). At 42 (6–108) months follow-up, 77% were disease-free, 19% showed recurrent metastasis (1 hepatic, 4 hepatic and elsewhere, 5 extra-hepatic) and 4% failed to attend the follow-up.

Conclusion Our results support the expanding evidence that LLR is safe and efficient for the treatment of benign and malignant liver lesions in carefully selected patients.

Competing interests None declared.

PWE-156 COMMON BILE DUCT STONES; A SURGICAL DISEASE

doi:10.1136/gutjnl-2012-302514d.156

Z Khanzada, * R Morgan. Department of General Surgery, Glan Clwyd Hospital, Bodelwyddan, UK

Introduction There is no clear consensus, from previous randomised controlled trials and meta-analyses, on the optimum treatment modality for common bile duct (CBD) stones. This study aimed to evaluate the single-stage laparoscopic approach to the management of CBD stones, as treatment of choice in patients who are fit for surgery, and to determine what results can be achieved when this treatment modality is chosen.

Methods The study was performed on a series of patients, both elective and emergency, who underwent laparoscopic CBD exploration, using prospectively collected data. Inclusion criteria were all patients who underwent laparoscopic CBD exploration (along with laparoscopic cholecystectomy) following a positive on-table intra-operative cholangiogram (performed selectively on patients with suspected CBD stones). The rate of successful CBD clearance was measured; markers of unsuccessful CBD clearance included finding of residual stones on T tube cholangiogram or MRCP, and the need for post-operative ERCP for clearance of either stones known to be left behind at the end of the procedure, or presenting symptomatically in the post-operative period. Morbidity was measured by identifying complications, including both intra-operative and post-operative, by case note review. Hospital stay was recorded from the date of admission to the date of discharge. Mortality was measured from hospital mortality audit records. Outcomes were noted in both elective and emergency situations. Finally a comparison of our experience was made with the recent published data.

Results In a series of 140 patients, successful clearance of CBD stones was achieved in 95.7% of cases. Retained stones were found in 3.6% cases and another 3.6% developed post-operative complications. A post-operative mortality rate of 1.4% was recorded, which was due to reasons not directly related to the procedure. The most common length of stay was 2 days, although the median length of stay was 4 days. 25% of cases were done as emergencies and 75% were elective. Overall conversion rate to open surgery was up to 12.8%, which mainly occurred in the emergency cases.

Conclusion Laparoscopic CBD exploration can be chosen as a safe and effective first line treatment for CBD stones; better results can be anticipated in elective (compared with emergency) patients.

Competing interests None declared.