

three patients who needed embolisation to control bleeding (two patients in this group died within 24 h).

Conclusion Hospital readmission rates after hepatic and pancreatic resection are acceptable. However, readmitted patients have a very high morbidity, often requiring urgent intervention only available at a specialist centre. Efficient communication and rapid transfer of patients to a centre with the available expertise is vital to prevent delayed deaths after major surgery.

Competing interests None declared.

PTU-078 DELAYS IN THE DIAGNOSIS AND MANAGEMENT OF PATIENTS WITH SUSPECTED SPHINCTER OF ODDI DYSUNCTION

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Introduction Sphincter of oddi dysfunction (SOD) is difficult to diagnose and treat. Biliary manometry is considered to be the gold standard for diagnosing SOD but is not widely available. A significant number of patients, that we think are likely to have sphincter oddi dysfunction, present to our hospitals with recurrent upper abdominal pain. They have multiple investigations, recurrent A+E attendances and repeated admissions without a clear diagnosis or definitive treatment. Our aim was to identify this patient group in order to streamline their investigations and allow definitive treatment at an early stage, prevent readmission and save resources.

Methods A retrospective case note review of patients across three hospitals in South Yorkshire, in whom the final diagnosis was SOD based on their clinical presentation and investigations.

Results We reviewed 40 case notes in total. 88% of patients were female with a median patient age of 40 (18–75 years) Patients on average presented to A+E 6 times (0–50), median number of inpatient admissions was 4 (0–20) with additional outpatient clinic appointments. 70% (28/40) of patients have previously undergone cholecystectomy, with 100% continuing to have similar pain to that prior to surgery. The most common provisional diagnosis at presentation was bile duct stones (38%). Median duration of symptoms was 3 years (range 5 months–23 years). 35% (14/40) of patients initially presented to the surgeons. 100% of patient had abdominal USS (1–5) and 63% had undergone at least one OGD. All patients had a MRCP (range 1–4), 17 (43%) patients had a CT abdomen (0–4) and 12 (30%) patients underwent a HIDA scan. Patients were categorised into SOD type 1 (22%), type 2 (56%) or type 3 (22%) on their clinical presentation and investigations. 28% (7/40) of patient had a trial of Botox, 48% (19/40) underwent ERCP and biliary sphincterotomy with 53% (10/19) having symptomatic improvement. The remainder were managed on medical therapy.

Conclusion There is a significant group of patients, who have recurrent abdominal pain, recurrent admissions, undergo multiple investigations and trials of medical therapy without a definitive diagnosis being made. In addition, these patients are often subjected to invasive interventions such as ERCP and sphincterotomy with the potential risk of serious complications. This audit highlights the need for a designated service to streamline work-up and management of these patients: both to reduce cost and to improve outcomes.

Competing interests None declared.

PTU-079 PROSPECTIVE AUDIT OF READMISSION FOLLOWING EMERGENCY AND ELECTIVE CHOLECYSTECTOMY IN A SINGLE HEALTH BOARD

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Introduction Surgical outcome indicators, such as hospital stay, readmission and mortality rates, are increasingly being used to assess and compare hospital board performance and considerable variation exists between hospitals specifically in readmission rates. The aim of the study was to determine true readmission rates following cholecystectomy in a single large volume centre to determine whether readmission was potentially preventable.

Methods All patients readmitted to one large teaching hospital surgical service within 28 days following elective or emergency cholecystectomy from September 2010 to June 2011 were audited prospectively.

Results Of 979 cholecystectomies performed during the period, 57 (5.8%) patients were readmitted. 38 of the 57 (67%) readmissions followed emergency-admission with symptomatic gallstone disease and 51 of these (89.5%) had undergone a laparoscopic approach. 34/979 (3.5%) were considered to be secondary to demonstrable complications of surgery with the most common cause being retained stones (11). No patient presented with bile duct injury, and there were no deaths. Only 14 of the readmitted patients (25%) required intervention: one required sub-phrenic abscess drainage, nine endoscopic-retrograde-cholangiopancreatography and sphincterotomy (ERCP), two completion cholecystectomy, one laparoscopic assessment following ERCP for bile leak and one underwent hepatico-jejunostomy for definitive management of an irretrievable retained stone following ERCP and laparoscopic bile duct exploration. Of those readmitted, the most common cause of presentation was non-specific abdominal pain (15 (26.3%)) with no cause found.

Conclusion Readmission rate in this large volume centre was low. Most patients readmitted following cholecystectomy have demonstrable surgically related complications but few require definitive surgical management. Further work is being conducted to define potential predictive factors for readmission.

Competing interests None declared.

PTU-080 POLYUNSATURATED PHOSPHATIDYLCHOLINE AND SIBUTRAMIN DECREASE THE LIVER FIBROSIS PROGRESS IN PATIENTS WITH NON-ALCOHOLIC LIVER DISEASE

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Introduction From 2009 to 2011 in our randomised prospective, blinded clinical trial we studied the effect of polyunsaturated phosphatidylcholine—PUPC (Essentiale® forte N, A. Nattermann & Cie.GmbH) and Sibutramin in patients with obesity (BMI 30–35 kg/m²). We studied 80 patients with obesity mean age of 38±7 years and 40 were males. High resolution B mode ultrasonography was carried out twice for screening NAFL patients and after 6 months treatment.

Methods Liver function markers ALT, AST and GGT were measured twice, before and after 6 months treatment. All patients followed the basic treatment scheme included dietary and physical regimen.

50 patients of investigational group (IG) additionally were treated by Sibutramin, daily dosage contained 15 mg and PUPC (daily dosage contained 1368 mg Phosphatidylcholine). 30 patients of control group (CG) were treated by Sibutramin, daily dosage contained 15 mg.

Results All 50 patients of IG and 30 patients of CG were available for follow-up reliable decrease (12.8%) of BMI and leptin level. In IG patients BMI and leptin level ($24.7 \pm 2.1\%$ — $16.2 \pm 1.2\%$) was registered compared to CG patients (BMI decrease—9.3%, leptin level $24.5 \pm 1.5\%$ to $19.9 \pm 1.1\%$). Moreover after 6 months of treatment the mean value of disease activity evaluated by Metavir scale was A1 in IG and A3 in CG. The results of liver biopsy (histological examination) and Fibromax test showed, that in patients with ALD additionally treated by PUPC, the progress of hepatic fibrosis was significantly slowly, then in CG (Fibromax test result: F1 vs F3) ($p < 0.05$). In addition after 6 months of treatment we found significant increase of steatosis in CG, and its reduction in IG ($p < 0.05$). Ultrasound studies were performed on the basis of liver attenuation value assessment and revealed the hepatic echotexture had become significantly improved after Sibutramin treatment in 46/50 (92%) of patients, while there was no change in 7/30 (23.3%) individuals. Also in patients additionally treated by polyunsaturated phosphatidylcholine and Sibutramin we found significant reduction of glucose, insulin levels and of insulin resistance index HOMA. The usage of Sibutramin itself did not reveal significant changes.

Conclusion Study results suggest that Sibutramin combined with PUPC improves liver function and insulin-sensitivity, reduces steatosis and fibrosis in patients with obesity and effect of combined therapy is higher than of Sibutramin itself.

Competing interests None declared.

PTU-081 TREATMENT AND SURVEILLANCE OF POLYPOID LESIONS OF THE GALLBLADDER IN THE UK: RESULT OF A SURVEY

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Introduction The management of gallbladder polyps (GBP) is still controversial. The increased use of routine abdominal imaging has led to a parallel surge of identified polypoid lesions in the gallbladder. The vast majority of these lesions are benign. True polyps, which are less frequent, have a malignant potential and surgery can prevent/treat early gallbladder cancer. In an era of constraint on health care resources it is important to offer cholecystectomy only to patients who have appropriate indications.

Methods The aim of this study was to assess the treatment and surveillance policies of GBP among hepatobiliary and upper GI surgeons in UK in the light of the current published literature. A questionnaire on GBP was devised and sent to the Consultant Surgeon members of the Association of Upper GI Surgeons (AUGIS) of Great Britain and Ireland after approval from the AUGIS Committee. There were eight questions regarding indications for laparoscopic cholecystectomy (LC) and surveillance based on GBP characteristics (size, number and growth rate), and patient characteristics (age, comorbidities and ethnicity).

Results There were 79 completed questionnaires. Three-quarters of surgeons consider 1cm as the size threshold for recommending surgery but 9% would consider LC irrespective of GBP size. 25% would recommend LC for multiple polyps irrespective of the size of the largest GBP. 28% of surgeons emphasise a growth rate of 5 mm or more as an indication for LC; more than 50% would not offer LC

unless the polyp size matches their criteria for single polyp LC. 25% would recommend surgery for any number increase of GBP between surveillance scans. Surveillance protocols were heterogeneous but about 40% would agree to surveillance up to 5 years. About 30% would not offer LC for octogenarians and 10% would reconsider their surgery threshold according to ethnicity.

Conclusion GBP are a relatively common finding on abdominal ultrasound scans. About 50 000 LC are performed each year in UK and 800–4000 are for GBP. The survey has shown considerable heterogeneity among surgeons regarding treatment and surveillance protocols. Although no randomised controlled trials exist, international guidelines would help standardisation, formulation of an appropriate algorithm and appropriate use of resources.

Competing interests None declared.

PTU-082 RIGHT AND EXTENDED RIGHT HEPATIC TRISECTIONECTOMY: SHORT AND LONG TERM OUTCOMES OF 332 RESECTIONS

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Introduction Despite advances in surgical and anaesthetic techniques made over the last 2 decades, right hepatic trisectionectomy (RHT) is still a challenging procedure associated with higher rates of morbidity and mortality. Some patients may even require further extension of the resection to include part of segments II/III to achieve clearance (extended right hepatic trisectionectomy, ERHT). Aim of the study was to assess and compare the early and long-term outcomes of RHT and ERHT in our Unit.

Methods From January 1993 to December 2010, 252 RHT and 80 ERHT were performed ($n=332$). Resection for colorectal liver metastases (CRLM), HCC, cholangiocarcinoma and other were 127, 43, 25 and 57 for RHT and 60, 3, 2, 15 for ERHT respectively. Mean age was 58.3 vs 57.9 and 57.1% vs 55% were males (RHT vs ERHT, $p=NS$). There were 61 caudatectomy in the RHT group and 15 in the ERHT ($p=0.36$, NS); vascular resection (IVC or PV) was performed in 61 and 10 cases ($p=0.18$, NS), biliary reconstruction was performed in 75 and 7 cases ($p=0.01$) and total vascular exclusion was necessary in 26 and 6 cases respectively ($p=NS$). The amount of functional hepatic remnant was based on intra-operative judgement.

Results There were 23 in-hospital deaths (6.9%, RHT: 19, ERHT: 4; $p=NS$). Overall morbidity was 44% (RHT) and 47.5% (ERHT). Bile leak (17 vs 3), haemorrhage (14 vs 4), sepsis (33 vs 9), cardiovascular events (12 vs 1) and renal failure (12 vs 3) did not differ among the two groups (RHT vs ERHT; $p=NS$). There were 42 (12.6%) post-hepatectomy liver failure (according to "50:50 criteria"): 23 in the RHT group and 19 in the ERHT group respectively ($p=0.001$). Mean hospital stay was 15.8 vs 17.1 days (RHT vs ERHT, $p=NS$). In the CRLM cohort, 1, 5 and 10 year survival was 78%, 47% and 39% vs 79%, 47% and 37% (RHT vs ERHT, $p=0.93$, NS). Median survival was 49 and 43.9 months respectively ($p=NS$) and median follow-up was 59.7 and 56.5 months (RHT vs ERHT).

Conclusion RHT and ERHT are a major undertaking with significant morbidity and mortality but represent the only chance of cure in selected patients. Liver failure is higher in the ERHT group but does not translate in increased mortality. Long-term survival in CRLM is achievable and does not differ among the two groups. Extensive liver resections even beyond conventional boundaries should not be considered an absolute contraindication to surgery.

Competing interests None declared.