

the proximal jejunum and surgically removed. Both patients made a full recovery and were discharged home.

Conclusion Bouveret's syndrome is rare and accounts for 1–3% of gallstone ileus. We have now encountered two cases in our hospital recently. This may reflect the rise in our ageing population, as a major risk factor for developing this syndrome is age >70 years. Establishing the diagnosis early requires an awareness of this syndrome and prompt recognition of the signs. Contrast enhanced CT is the investigation of choice. In addition to this, a combined care approach between the gastroenterologists, surgeons and nutrition team is crucial to a successful outcome, hence our wish to present these cases.

Competing interests None declared.

REFERENCE

1. Cappell MS, Davis M. Characterization of Bouveret's syndrome: a comprehensive review of 128 cases. *Am J Gastroenterology* 2006;**101**:2139–46.

PWE-149 GENE EXPRESSION IN OXALIPLATIN RELATED SINUSOIDAL OBSTRUCTION SYNDROME

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Introduction Sinusoidal Obstruction Syndrome (SOS) is associated with Oxaliplatin based chemotherapy in patients with colorectal liver metastases (CRLM) and is a cause of concern when undertaking major liver resection. The pathogenesis of SOS is poorly understood however a variety of candidate genes have been identified which may play a role in activating various molecular pathways involved. The aim of this study was to validate these gene expression changes in an independent cohort of patients.

Methods Patients undergoing liver resection for CRLM, were identified for inclusion and appropriate informed consent obtained. Full clinical information was recorded for each patient including pre-operative chemotherapy use. A biopsy of the non-tumour bearing liver was obtained, prior to parenchymal transection, and stored in RNAlater. Histopathology was reviewed to identify those with SOS. Hepatic gene expression was compared in chemotherapy naive patients (controls) with no evidence of underlying liver disease (n=10) and those who received pre-operative Oxaliplatin either with (n=13) or without (n=9) evidence of SOS by qRT-PCR. Mann–Whitney U test was used to assess statistical significance.

Results The interval between cessation of chemotherapy and surgery was similar for all patient groups (p=0.45). In contrast to previous studies we were unable to identify changes in extracellular matrix remodelling genes (MMP2, MMP9, TIMP1, TGFβ) thought to be involved in SOS. However there was up regulation of angiogenesis related VEGF-C (1.6-fold, p<0.05) along with the hypoxia induced HIF1α (1.98-fold; p<0.01) in those with SOS. It is suggested that SOS is associated with a pro-thrombotic tendency and in keeping with this there was a non-significant trend towards increased expression of vWF (2.5-fold; p=0.06). We also confirmed up-regulation of CCL20 in those with SOS (3.8-fold; p<0.05) which is chemotactic for colorectal cancer cells.

Conclusion We were able to confirm up-regulation of genes involved in angiogenesis, hypoxia and thrombogenesis in patients with SOS. It is likely that changes in extracellular matrix re-modelling genes occur early in the development of SOS and but have returned to baseline levels if there is a reasonable duration between stopping chemotherapy and surgical resection. Increased expression of CCL20 may account for the recently reported poorer disease specific survival in patients with SOS.

Competing interests None declared.

PWE-150 CHEMOTHERAPY ASSOCIATED LIVER INJURY: A SYSTEMATIC REVIEW AND META-ANALYSIS

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Introduction Chemotherapy associated liver injury (CALI) has been associated with increased morbidity and mortality in patients undergoing major hepatectomy to treat colorectal liver metastases (CRLM). In addition a link has recently been made between CALI and poorer long term disease specific outcome. The aim of this review was to determine the pathological effect of specific chemotherapy regimens on the hepatic parenchyma as well as surgical morbidity, mortality and overall survival.

Methods A literature search of MEDLINE, EMBASE and the Cochrane Library identified 14 619 potentially relevant reports. Of these 37 full text reports which included patients only with CRLM and provided either histological data or patient outcome data were considered suitable for inclusion in this review. For each report data relating to study design characteristics, histological scoring of the liver parenchyma and peri-operative outcomes were extracted using a standardised proforma. Study quality was assessed using the Newcastle-Ottawa score for non-randomised studies and the grade of evidence assessed according to the Oxford centre for Evidence Based Medicine scale. A meta-analysis was performed utilising the random effects model of DerSimonian and Laird. Results are reported as RR (±95% CI). Statistical significance was set at p<0.05.

Results No association could be demonstrated between the use of pre-operative chemotherapy and the development of hepatic steatosis >30%. The presence of steatohepatitis was associated with the use of pre-operative Irinotecan based chemotherapy (RR 3.45; 95% CI 1.12 to 10.62; p=0.03). Calculating the number needed to harm suggests that one in every 12 patients treated with Irinotecan based chemotherapy could be expected to develop steatohepatitis. Oxaliplatin based chemotherapy regimens are associated with grade 2 or greater sinusoidal injury (RR 4.36; 95% CI 1.12 to 10.62; p=0.03) with a number needed to harm of 8. The use of Bevacizumab alongside Oxaliplatin reduces the risk of grade 2 or greater sinusoidal injury.

Conclusion The use of pre-operative chemotherapy is associated with an increased risk of injury to the liver parenchyma in patients with CRLM. This injury occurs in a regimen specific manner with Irinotecan being associated with steatohepatitis whereas Oxaliplatin is associated with sinusoidal injury. This injury may have implications on the functional reserve of the liver following major hepatic resection.

Competing interests None declared.

PWE-151 EMERGENCY ERCP IN CRITICALLY ILL PATIENTS IS A SUCCESSFUL PROCEDURE

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Introduction Emergency ERCP may be required in patients with biliary sepsis who rapidly deteriorate with multi-organ dysfunction and cannot wait until the next available list. The majority of these patients require ventilatory and/or inotropic support and general anaesthesia for stabilisation. The data on the outcome of emergency ERCP in this patient cohort is limited. We sought to assess the frequency, indications, and clinical outcomes of emergency ERCPs.