PWE-144 SMALL BOWEL CAPSULE ENDOSCOPY IN PATIENTS WITH CIRRHOSIS: THE EDINBURGH EXPERIENCE

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Introduction Portal hypertensive enteropathy (PHE) remains difficult to diagnose in patients with cirrhosis and portal hypertension. Limited test choices exist for the inspection of the small bowel in these patients. Small bowel capsule endoscopy (SBCE) would be ideal in this situation but it is rarely performed.[1–3]

Aim

We aimed to determine the prevalence of PHE using SBCE in a cirrhotic patient population from our centre.

Methods This was a retrospective study using the SBCE data base of our unit. We searched through 1,477 patients that had SBCE between 2005 and 2013. Patients with cirrhosis who underwent SBCE were identified, data retrieved and abstracted. The Fischer's exact or the chi-square tests were used to compare between groups. A two-tailed *P* value of <0.05 was considered statistically significant.

Results We identified 53 patients with cirrhosis who underwent SCBE. We used PillCam®SB (Given®Imaging Ltd, Israel) system on 36 patients and the MiroCam® capsule (IntroMedic Co, Korea) on 17 patients. Thirty patients were referred for iron deficiency anaemia, 15 for obscure gastrointestinal bleeding, and 4 for other indications.

Four data sets were not available for review at the time of the study, leaving 49 patients to be reviewed. Mean age was 61.19 ± 14.54 years (M/F=27/22). Table 1 shows the aetiologies of liver disease in these patients. Six SBCE examinations were incomplete. Thirty three patients had evidence of portal hypertensive gastropathy (PHG) and 17 patients had evidence of oesophageal varices. In total, 29 patients had SCBE evidence of PHE (67%). 28/29 (96.5%) of patients with PHE had also evidence of PHG. 13/17 (76.4%) patients with oesophageal varices had also evidence of PHE.

Our mean follow up was 58.0 ± 13.7 months. Twenty patients died during the follow up period. There was no correlation between the presence of PHE and aetiology of liver disease (P = *0*.4261) or subsequent death (P= 0.2145).

Conclusion The prevalence of PHE in our study was 67%. SBCE is a useful tool in evaluating PHE in cirrhotic patients irrespective of aetiology.

Abstract PWE-144 Table 1

ALD	15
NAFLD	9
HepC	7
Cryptogenic	6
PBC	6
Other	6

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Disclosure of Interest None Declared.

PWE-145 CHARACTERISATION OF CIRCULATING AND LIVER INFILTRATING MAIT CELLS IN HUMAN INFLAMMATORY LIVER DISEASES

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Introduction Mucosal-Associated Invariant T (MAIT) cells are characterised by expression of the semi-invariant TCR α-chain Vα7.2-Jα33 and high expression of CD161 and shown to play a role at mucosal barriers. They display a limited T cell receptor repertoire being restricted by the MHC class 1-related molecule, MR1 but secrete high levels of pro-inflammatory cytokines suggesting they may play an important role in liver inflammation. We have shown before that the majority of MAIT cells in circulation are $CD8^+$ MAIT cells. Recently, presence of MIAT cells have been described within human liver perfusate. However, very little is known about the phenotype and functions of liver infiltrating MAIT cells. In this study we investigated the frequencies and phenotypes of human liver infiltrating MAIT cells in healthy donors and diseased livers.

Methods Peripheral blood and explanted liver infiltrating lymphocytes were freshly isolated and phenotyped by multicolour flow cytometry. The MAIT population was defined as $CD3^+CD16^{Hi}$ $Va7.2^+$.

Results There was no difference in frequencies of circulating $CD3^{Pos}CD161^{Hi}Va7.2^{Pos}$ MAIT cells between patients with inflammatory liver disease and healthy controls (1.4 ± 0.7% vs. 2.3 ± 1.0%) and the majority were $CD8^{Pos}$ (82.3 ± 3.1%) with a smaller population of $CD4^{Pos}$ (2.7 ± 0.6%) and double negative $CD8^{Neg}CD4^{Neg}$ cells (14.8 ± 2.9%). Total $CD3^{Pos}CD161^{Hi}Va7.2^{Pos}$ MAIT frequencies were not significantly altered in inflamed liver tissue compared to blood (4.4 ± 1.0% vs. 1.4 ± 0.7%). However, in the inflamed liver, the $CD8^+$ subset was reduced (61.2 ± 6.2 vs. 82.3 ± 3.1, P = 0.006) while the $CD4^+$ MAIT subset was increased (15.9 ± 5.6 vs. 2.7 ± 0.6, P = 0.02). CXCR3, liver homing chemokine receptor was highly enriched on circulating and liver infiltrating $CD3^{Pos}CD161^{Hi}Va7.2^{Pos}$ MAIT cells (>75%). Liver infiltrating MAIT cells expressed chemokine receptors CCR5 (78.4 ± 7.2), CX3CR1 (51.3 ± 10), CCR6 (46.3 ± 14.8) and CXCR6 (36 ± 6.2%). Interestingly they expressed high levels of the integrin β7 (39.1 ± 3.6) and CD103 (19.6 ± 5.5%), which are associated with mucosal immune responses. They also expressed the cytokine receptors IL23R (27.1 ± 8.5%) and IL18Rα (76.7 ± 5%).

Conclusion We have described for the first time that $CD3^{Pos}CD161^{Hi}Va7.2^{Pos}$ MAIT cells are present in inflamed human liver and express high levels of CXCR3 receptor implicated in lymphocyte recruitment to the liver and three other chemokine receptors CX3CR1 and CCR6 and CXCR6 that are associated with homing to portal tracts and bile ducts. Thus MAIT cells may play a role in biliary pathology.

Disclosure of Interest None Declared.

PWE-146 THE NEWCASTLE VARICES IN PBC (NVP) SCORE – A VALIDATION STUDY

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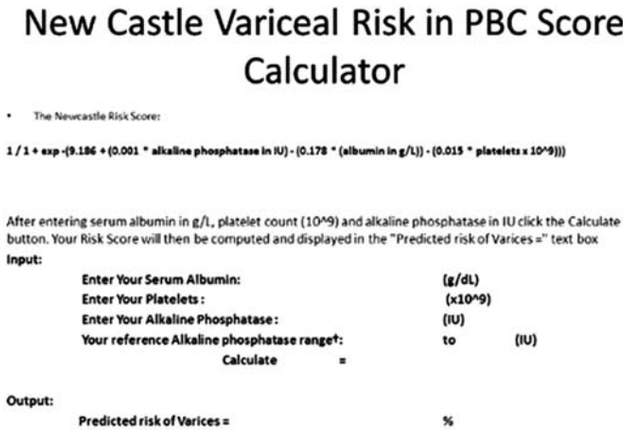
Introduction The NVP score[1] is a simple, non- invasive externally validated tool which aims to predict variceal risk in patients



Abstract PWE-146 Figure 1

with primary biliary cirrhosis based on serum albumin levels, platelet count and serum alkaline phosphatase level. A easy accessible online tool is available where values can be entered and score greater than 50% is considered to predict the presence of varices, thereby warranting oesophago-gastro-duodenoscopy (OGD). The aim of this study was to validate this score in an external validation cohort from Liverpool.

Methods Retrospective study involving 80 PBC patients under follow up at a university hospital. Of them, patients who had undergone a OGD for any clinical reason were identified and findings of the OGD noted. Results of blood tests to allow calculation of the NVP score were recorded. An NVP probability of 0.5 was used as the cut-off to analyse the performance of the score.

Results Patients involved in the study had mean albumin levels of 36, platelets of 260 with an ALP ranging between 58 and 811. 97% were female and median age of patients was 67 years. 30 PBC patients who had an OGD were identified. 10 of the 30 patients had varices on endoscopy. The NVP Score performed well in identifying those in whom varices were absent in this cohort (sensitivity of 100%, specificity 69%, Negative Predictive Value 100% and Positive Predictive Value 10%; overall accuracy 84.5%) and had a good discriminating power with AUROC 0.89.

Conclusion The NVP Score proved to be a highly sensitive tool to discriminate patients with PBC who do not have varices and in whom OGD is unnecessary in our cohort. The study therefore strongly supports the view that prospectively applying the score in patients with PBC will help to direct endoscopic evaluation in the right category of patients thereby ensuring effective use of resources.

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PWE-147 NURSE LED DAY CASE PARACENTESIS

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Introduction Refractory ascites is a debilitating condition. Prior to the implementation of nurse led day case paracentesis all patients were admitted into the hospital for an inpatient stay of between 3 and 5 days. An audit of inpatient paracentesis was carried out to assess the quality and efficiency of inpatient paracentesis. From this the service was developed to improve the overall quality of the patient experience and reduce inpatient admissions for paracentesis. Disease aetiology includes alcoholic liver disease, viral disease, autoimmune disease and advanced malignancy.

Methods The hepatologist CNS was trained by the consultant hepatologist to perform paracentesis. All patients requiring paracentesis are referred directly to the CNS from GP's, out patient clinics and the accident and emergency department. Patients are assessed in a pre procedure clinic by the CNS. A clinical examination is performed, bloods are checked and if necessary corrected accordingly to facilitate day case paracentesis. To date, the CNS has performed over 200 day case paracentesis procedures and complication rates remain below the national average.

Results Data collected from a patient feedback exercise was extremely positive in all aspects of the nurse led day case paracentesis service. An audit of the service demonstrated no difference in overall outcomes when the CNS performed the paracentesis in comparison to the medical registrar. There has been a significant reduction in hospital bed days required for paracentesis.

Conclusion Nurse led day case paracentesis is a safe, effective and economic alternative to costly inpatient hospital admissions. It has proven to be both beneficial to the service user and the NHS trust. Patients benefit from a key worker who specialises in the management of refractory ascites who can provide management and out patient intervention to avoid the potential compliactions of large volume refractiory ascites and unnecessary hospital admissions.

Disclosure of Interest None Declared.

PWE-148 LONG TERM OUTCOMES OF PERCUTANEOUS RECANALISATION FOR BUDD-CHIARI SYNDROME (BCS): OUR EXPERIENCE IN BIRMINGHAM, UK

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Introduction Patients with BCS and short stenosis of the hepatic vein or the upper IVC can be treated with recanalisation by percutaneous venoplasty ± hepatic vein stent insertion. Recent data suggests >60% failure rate (PMID 23389867). We studied the long-term outcomes of this approach in our institution.

Methods Retrospective analysis of patients referred from 1987 to 12/2012 for radiological intervention. Of 161 patients treated for BCS, 60 patients were selected.

Results Median age, 34.5 years (19–65), M:F ratio 23:37. Mean follow up, 8 ± 6.6 years (0.1–26 years). 60% of patients had ≥1 haematological risk factor. Percutaneous recanalisation was technically successful in all patients. The obstruction was at the level of hepatic vein (s) (86.6%), IVC (6.6%) and both IVC and HV (6.6%). 30 patients were managed with venoplasty alone. Of the 30 who had stent placement, 15 had venoplasty prior to stent placements, ranging from 1–11 venoplasty episodes. Due to failure of recanalisation, 26.66% patients required TIPSS (16.7%), surgery (8.3%) and liver transplantation (6.7%). Actuarial survival at 1, 5, 10 was 95%, 93%, and 83% respectively (*kaplan meier survival Graph 1*). All patients maintained Child's