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