100%, and 66.7% respectively if Panc3 is excluded from false negative category in cancer group.

There was no procedure related complications or mortality.

Abstract PWE-065 Table 1 Histopathological diagnoses of cancer on EUS-FNAC

Types of cancer	N=114
Adenocarcinoma	93
Neuroendocrine tumour/ carcinoma	16
Adenosquamous carcinoma	1
Non-small cell carcinoma	1
Squamous carcinoma	1
Papillary adenocarcinoma	1
Metastatic renal cell carcinoma	1

Conclusion This study confirms that EUS-FNA of PB lesions can be highly effective and safely carried out in a non-HPB centre. Overall adequacy of tissue acquisition is in compliance with JAG guidelines. Our diagnostic yield is in keeping with the published literature^[2]. Our NPV is relatively low because the purpose of EUS-FNA was to confirm suspected cancer on cross-sectional imaging.

REFERENCE

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PWE-066 ARE WE MISSING CASES OF PANCREATIC EXOCRINE INSUFFICIENCY IN HOSPITALISED PATIENTS WITH HIGH ALCOHOL INTAKE?

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Introduction High alcohol intake is an established risk factor for pancreatic exocrine insufficiency (PEI) and chronic pancreatitis. PEI is associated with maldigestion, weight loss and malnutrition. Faecal elastase-1 (FEL-1) is the most acceptable first-line test for PEI. We aim to study the current practice and yield of PEI in patients with high alcohol intake by testing with FEL-1. We also aim to identify positive and negative predictive factors and improve the testing yield.

Methods We prospectively identified patients admitted to hospital with alcohol related problems and tested with FEL-1. In addition to demographic information, data was collected including body mass index (BMI), alcohol intake per week, pack-year smoking history, haemoglobin, platelet, albumin, bilirubin, alkaline phosphatase, alanine-transferase, C-reactive protein, vitamin B12, folate, ferritin, calcium, magnesium, phosphate, zinc, copper and selenium levels. FEL-1 <200 µg/g was taken as a presence of PEI.

Results A total of 47 patients with high alcohol intake were recruited and tested with FEL-1 (28 male, mean age 46.3 ± 10.9 years). No patients had previously been tested for PEI. Mean alcohol intake per week was 177.1 ± 94.8 units. An FEL-1 level of <200 µg/g was identified in 23.4% (11/47)

patients. Potassium levels showed positive correlations with FEL-1 value ($p=0.048$, $R^2 = 0.084$). A positive correlation was also seen with serum copper ($p= 0.0087$, $R^2= 0.48$). A higher proportion of biochemical markers with below normal level was seen in low FEL-1 patients compared to FEL-1 ≥200 but without reaching statistical significance, including albumin 54.5% (6/11) vs 36.1% (13/36) $p=0.31$, magnesium 63.6% (7/11) vs 53.3% (16/30) $p=0.73$, and phosphate 45.5% (5/11) vs 35.3% (12/34) $p=0.5$

Thirty-three patients were smoker with no difference in mean pack-year smoking history between patients with low FEL-1 and those with FEL-1 ≥ 200 µg/g (10.8 ± 12.3 vs 14.2 ± 15.7 , $p=0.5189$). Also, there was no difference in mean BMI in patients with a low FEL-1 compared to those with FEL-1 ≥200 (28.4.34 vs 26.3 kg/m², $p=0.4616$).

Conclusion PEI is common in patients hospitalised with alcohol related problems and not recognised. PEI patients are overweight suggesting that using a low BMI to target patients is insufficient to prompt testing for PEI or malnutrition in this patient group. Serum markers have a correlation but are unhelpful at predicting PEI. However, given the high yield we recommend follow up studies to see if treatment has an impact on quality of life and hospitalisation of patients.

PWE-067 CAN SERUM NUTRITIONAL MARKERS BE USED FOR DIAGNOSING PANCREATIC EXOCRINE INSUFFICIENCY IN AT RISK GROUPS?

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Introduction Patients with pancreatic exocrine insufficiency (PEI) are at an increased risk of nutritional deficiency which can lead to cardiovascular disease and associated mortality. Faecal elastase-1 (FEL-1) has a good sensitivity and specificity in severe PEI but the diagnostic accuracy decreases in mild to moderate PEI. Some serum nutritional markers and vitamin serum levels have been shown to be associated with malnutrition. The aim of this study was to investigate if serum nutritional markers could be used to diagnose PEI.

Methods Patient at high risk of PEI (abdominal pain suggestive of chronic pancreatitis, high alcohol intake and diabetes mellitus) were prospectively recruited. Patients with known PEI or taking enzyme replacement therapy were excluded. All patients had demographic information collected, BMI calculated and FEL-1 performed. Blood samples were taken for levels of sodium, potassium, calcium, magnesium, phosphate, prealbumin, vitamin D, copper, zinc and selenium. A FEL-1 result of <200 µg/g was considered as indicating PEI which was confirmed on repeat testing and investigated further.

Results A total of 144 patients were included in the study (mean age 52.1 ± 18 years, 76 males). A FEL-1 <200 was detected in 46 patients 46/144 (32%) indicating presence of PEI. There was no significant difference between PEI and non-PEI groups in age (54.8 vs 50.8 years, $p=0.11$) or BMI (27.8 vs 27.9 kg/m², $p=0.91$).

A significant number of PEI patients had selenium deficiency 8/31 (25.8% below normal level) compared to non-PEI group 7/98 (7.4%), $p=0.028$. None of the patients with normal pancreatic function and morphology on images had low selenium (0/30) compared to patients with PEI and confirmed

chronic pancreatic changes 5/17 (29.4%), $p=0.004$. Analyses of other markers did not show significant differences in proportions of biochemical marker deficiencies between PEI and non-PEI groups. Using selenium ($<0.61 \mu\text{mol/l}$) as a marker of PEI in high risk groups gave a sensitivity, specificity, positive predictive value and negative predictive value of 25.81% (95% CI=12.3%-38.5%), 92.45% (95% CI=83%-98%), 66.66% (95% CI=39.3%-86%), 68.06% (95% CI=58.9%-67%), respectively.

Conclusion Although a selenium deficiency was significantly associated with PEI, its poor sensitivity as a test for PEI would only make it supportive of a diagnosis and other tests would be required. Apart from selenium levels it would appear that checking serum nutritional markers for suspected cases of PEI at diagnosis results in a low diagnostic yield. PEI patients are overweight suggesting that using a low BMI to target patients is insufficient to prompt testing for PEI or malnutrition in this patient group.

PWE-068 PREVALENCE AND OUTCOMES OF PANCREATIC CYSTIC LESIONS IN LIVER TRANSPLANT RECIPIENTS: A PILOT STUDY FROM A LIVER TRANSPLANT CENTRE

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Introduction Incidental small pancreatic cystic lesions (PCLs) are common present in 1–2% of the population undergoing CT for non-pancreatic indications. They are increasingly being identified on preoperative imaging of patients undergoing orthotopic liver transplantation (OLT). Most PCL are benign but a proportion, namely intraductal papillary mucinous neoplasms (IPMNs) and mucinous cystic neoplasms (MCNs) harbour malignant potential. There is growing evidence that liver transplant recipients are at increased risk of extrahepatic malignancy. Whether the natural history of PCL in liver transplant recipients is the same as the general population is uncertain. The aim of this study was to look at the incidence and progression of PCL in liver transplant recipients.

Methods A pilot series of patients from a large UK liver transplant centre, were included. Between January 1990 and December 2017, a proportion of cases were selected from our consecutive database of liver transplant patients.

Results 238 patients were included. PCL were present in 4% (9/238), 8/9 were male. End stage liver disease was due to alcohol related liver disease in 5 cases, Primary Sclerosing Cholangitis in 3 and was unknown in 1. Follow-up was undertaken by MRI annually. During the median follow up of 79 months (range 33–288 months) all PCL in the liver transplant patients on long-term immunosuppression remained stable in size. One developed mild dilation of the main pancreatic duct but no other features of concern were observed.

Conclusion The prevalence of PCLs in liver transplant recipients was similar to that of the general population. PCL do not appear to have an accelerated malignant potential in post liver transplant patients, indicating the current International and European surveillance guidelines are likely to be applicable in this group.

PWE-069 MANAGEMENT OF PANCREATIC FLUID COLLECTIONS BY LAMS: LARGE SERIES FROM A TERTIARY REFERRAL HPB CENTRE

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Background Endoscopic transmural drainage is increasingly accepted as the first-line treatment for patients with symptomatic pancreatic fluid collections (PFC). International data has shown that in comparison to double pigtail stents Lumen Apposing Metal Stents (LAMS) are associated with higher rates of clinical success (especially in cysts with necrosis), shorter procedure times and potentially fewer adverse events. To date there has been limited data from the UK on the utility of these stents.

Methods Between January 2016 - December 2018 all patients who required endoscopic drainage of a pancreatic fluid collection via EUS-guided LAMS (Hot AXIOS™ system, Boston Scientific) were included. Treatment success, length of hospital stay, adverse events, reinterventions and length of follow-up were recorded in each case.

Results During the 3 year study period, 84 EUS-guided LAMS were placed on 80 patients. Median age was 52 years (Range 7–79 years). 52% (44/84) were female. Necrotic material was present in 44% (37/84) and significant portal hypertension visible on EUS in 8% (7/84). In four patients a 8 mm stent was placed, 10 mm stents were placed in thirty-five patients, a 15 mm stent in twenty-five patients and a 20 mm stent in eleven patients (in nine patients the stent size was unknown). Adverse events occurred in 11% (9/84) of cases (6 cases of failed stent deployment, 2 buried stents and one recurrent pancreatic fluid collection following stent removal)

Conclusion Use of LAMSs in the management of pancreatic fluid collections was safe and effective and associated with low rates of cyst recurrence.

PWE-070 TRENDS IN PANCREATIC CYSTIC LESIONS REFERRED FOR ENDOSCOPIC ULTRASOUND: 10 YEARS EXPERIENCE

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Introduction Pancreatic cystic lesions are being identified more frequently as cross sectional imaging has improved. Referral for endoscopic ultrasound (EUS) for further assessment and possible sampling is well recognised however there is little data on whether the characteristics of such lesions have changed over time. There is also a paucity of data concerning changes in pathological findings and surgical resection rates with respect to cystic lesions. The aim of this study was to assess trends in referral for EUS with respect to patient and cyst characteristics, pathological adequacy and surgical resection rates over a 10 year period to our centre.

Patients and methods Retrospective analysis of the EUS database was performed over the period 2003 to 2012. EUS procedures for assessment of cystic lesions were identified and