information concerning number per year, patient age and sex at referral, cyst size, cyst site, ability to give a cytological diagnosis, surgical resection and malignant surgical resection pathology were recorded. Kendall's tau test (continuous data) or the Chi squared (categorical data) for trend test was used to determine significant changes over time.

Results 417 patients (mean age 64.3 years, 163 males) underwent EUS in our unit for the assessment of cystic lesions over the study period. There was no significant difference in patient age or sex at referral over the study period. There was a significant increase in the number of procedures per year from 2003 (n=11) to 2012 (n=74) (tau 0.556, p=0.032) but a significant decrease in cyst size from 4.75cm in 2003 to 2.2cm in 2012 (tau -0.112, p=0.001). There was a significant change in the cyst site over time mainly due to an increase in the proportion of cysts found in the body of pancreas (p for trend<0.0001). Inability to give a cytological diagnosis rates fell significantly from 45.5% in 2003 to 21.6% in 2012 (p for trend=0.0048) and surgical resection rates fell from 36.4% to 17.6% (tau -0.112, p=0.0006). The number of malignant cysts (resected or not) also decreased significantly from 11.4% to 4.1% (p for trend=0.0097).

Conclusions Cyst referrals for EUS have increased significantly but cysts are smaller, less likely to undergo resection, have a lower rate of malignancy and more likely to be in the body. Inability to give a cytological diagnosis rates also reduced significantly which may be due to improved laboratory techniques or a learning curve effect.

PWE-071 ENDOROTOR® USE TO MANAGE WALLED-OFF PANCREATIC NECROSIS; FIRST UK EXPERIENCE

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Introduction 20% of patients with acute pancreatitis develop necrosis, which has a poor prognosis and significant mortality rate. Endoscopic necrosectomy is the primary intervention in the management of walled-off pancreatic necrosis (WOPN)¹. After insertion of a lumen-apposing self-expanding metal stent (LASEMS), necrosis is removed using tools such as snares and forceps. Multiple procedures are often required, with repeated insertion of the endoscope into the cavity causing patient discomfort. EndoRotor® is a through-the-scope catheter with a rotating blade, cutting tissue which is then drawn into the catheter via suction. We present the first UK case series of EndoRotor® use for endoscopic necrosectomy. We aimed to evaluate the feasibility, safety and efficacy of its use in clearing WOPN.

Methods All procedures were performed under conscious sedation by endoscopists experienced in necrosectomy.

1. A 54 year old female developed a 19 cm x 8 cm area of WOPN as a consequence of acute pancreatitis. A LASEMS was inserted and EndoRotor® necrosectomy was performed five days later. Most of the necrotic tissue was cleared and the procedure was well tolerated. Final clearance was completed with a further snare necrosectomy 6 days later. Imaging confirmed a significant reduction in the cavity size (8cm x 2cm) and the patient was discharged.
2. A 56 year old female was admitted with acute pancreatitis and discharged home after 12 days. She was later admitted

for elective cholecystectomy but became unwell. A CT found a 28cm x 9cm area of WOPN. A LASEMS was inserted and a necrosectomy was performed two days later. All visible necrosis was removed using EndoRotor® four days later. Later examination showed some residual necrosis within a well healing cavity, requiring no further intervention.

3. A 48 year old male was admitted with acute severe pancreatitis, developing multiorgan failure requiring ICU care. A CT confirmed an 18cm x 12cm pancreatic collection and a LASEMS was inserted. The patient had four necrosectomies before having an EndoRotor® necrosectomy with good result. Two further necrosectomies were required before LASEMS removal.

Results All patients underwent EndoRotor® necrosectomy without complication. To achieve complete removal of WOPN the median number of procedures (including with EndoRotor®) was three (range 2–7).

Conclusions As EndoRotor® draws necrosis in by suction, repeated insertion of the endoscope into the cavity is not needed, allowing greater tolerability and improved clearance of necrosis. Initial experience suggests that EndoRotor® is a safe and efficient tool for clearing WOPN.

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PWE-072 EUS FORK-TIP BIOPSY VERSUS EUS FNA IN THE DIAGNOSIS OF SOLID PANCREATIC MASSES

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Introduction In an attempt to overcome the limitations of Endoscopic ultrasound (EUS) fine needle aspiration (FNA) a fine needle biopsy (FNB) needle (SharkCore™) with a novel fork-tip, has been introduced. This needle is designed to increase tissue yield and preserve tissue architecture. The aim of this study was to determine if FNB histology samples had better diagnostic performance for solid pancreatic masses than FNA cytology samples.

Methods Consecutive patients referred for EUS-guided sampling of solid pancreatic lesions were recruited. Each patient had 3 passes with a standard (Beacon™) FNA needle and 3 passes with a core (SharkCore™) FNB needle performed in a randomised order. 25g needles were used for transduodenal sampling and 22g for transgastric. A single slide was made from each pass with the FNA needle and the remaining aspirate placed in CytoRich™ fluid and sent for liquid based cytological analysis. All samples from the SharkCore™ needle were placed in a single container of formaldehyde and sent for histological analysis. Samples were reported by expert cytopathologists and histopathologists respectively who were blinded to the results of the other needle. Only samples reported as diagnostic of malignancy were considered positive. Inadequate samples were not excluded from the analysis. Sample quality and ease of diagnosis were assessed on a 3 point scale. The primary endpoint was the accuracy of the diagnosis of malignancy. Secondary endpoints were the quality of sample

obtained, ease of diagnosis and the duration of tissue sampling and pathological reporting.

Results 108 participants were recruited, 57 male; mean age 66.9 ± 10.9 . 85.2% had a final diagnosis of malignancy. Median lesion size (IQR) was 25 mm (19–34.5). 62 (57.4%) of lesions were in the head of pancreas. Tissue results from the FNB needle were significantly more accurate than FNA (84.2% vs 75%, $p=0.041$) in discriminating malignant from benign masses. A greater proportion of FNB samples had abundant diagnostic material (59.2% vs 44.4%, $p=0.017$) and a straight forward diagnosis (68.9% vs 51.9%, $p=0.03$). Biopsy sampling time median (IQR) 685s (565–832) vs 752s (651–835), $p=0.0006$ and pathology reporting times (191s (134–258) vs 332s (260–358), $p<0.0001$) were significantly shorter with FNB compared to FNA.

Conclusion The diagnostic performance of the SharkCore™ FNB needle was significantly better than that of a standard FNA needle in the diagnosis of solid pancreatic masses and was associated with better sample quality, ease of reporting and shorter sampling and pathological reporting times.

PWE-073 EUS-GUIDED DRAINAGE OF PERIPANCREATIC FLUID COLLECTIONS: HOT AXIOS EXPERIENCE FROM A TERTIARY REFERRAL CENTRE

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Introduction Endoscopic management of peripancreatic fluid collections (PFCs) has a high success rate and low mortality rate but plastic stents may be associated with high rates of blockage (18%) while stent migration (15%) remains an issue for tubular self-expanding metallic stents.¹ The Hot-Axios (Boston Scientific) device offers a one-step combined diathermy-enabled access and deployment of a lumen-apposing self-expanding metal stent (LASEM). The aim of this study was to investigate the efficacy and safety of the Hot-Axios device for the management of patients with PFCs referred to a regional tertiary centre.

Methods This was a single-centre retrospective database study involving 27 consecutive patients who underwent drainage of PFCs using the Hot Axios device between 1st January 2018 and 1st of January 2019. Data was obtained by interrogating GI reporting tool (Unisoft) and electronic health record systems, and is reported using simple descriptive statistics.

Results 28 procedures were performed in 27 patients (20 males (74%), average age 57). 27 stents (96%) were successfully placed. Clinical success rate was 89% (25 procedures, 2 increased in size due to complications, 1 had no change in size). 27 (96%) procedures were performed under conscious sedation (median doses: 3 mg (range:1–6) Midazolam and 50 mcg of Fentanyl (range 25–100)). Stents remained in situ for an average of 55 days. 71% (20 procedures) required further washout (mean 1.4(1–5)). There was 1 perforation (4%), 2 blocked stents (7%), 2 migration (7%). 30 day mortality was 7% (2 patients- due to pseudoaneurysmal bleed unrelated to the procedure).

Conclusion EUS-guided management of PFCs using the Hot-Axios device offers high technical and clinical success rates, and low adverse event rates. Long term efficacy and safety

data comparing plastic, conventional metal stents and LASEMs in a randomised controlled trial is required.

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PWE-074 AMYLASE TESTING IN PRIMARY CARE – DOES IT IDENTIFY PATHOLOGY?

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Introduction Serum amylase is a frequent requested biochemistry test in primary care. While useful in diagnosis of acute pancreatitis when significantly raised, it is not specific for this condition. It is often mildly raised in other GI and non-GI conditions, and can lead to unnecessary imaging and hospital referrals. We aimed to assess diagnostic value of serum amylase in primary care and its impact on secondary care services. **Methods** Data on patients in our local area who had serum amylase requested by their GP and processed at our laboratory during a 12-month period was assessed, comprising 2256 results. Children and repeat testing on single patients were excluded, with 2207 pancreatic amylase and 4 non-pancreatic amylase results reviewed. Indications, secondary care referrals and investigations, and final diagnoses were collected.

Results The commonest indication was abdominal pain (1123), followed by deranged LFTs (111) and “monitoring” or “routine test” (98). Over 150 separate indications were identified, including “anosmia” and “fertility check”.

194 patients had one or more amylase result above normal range (100 U/L), with 9 patients between 209 and 299 U/L, and 6 patients greater than 300 U/L.

56 patients had their amylase repeated by the GP before decision was made about referrals, with 32 patients’ results improving without treatment or investigation.

58 patients had an abdominal USS requested by their GP on the basis of raised amylase/symptoms as per indication of amylase request.

41 patients were referred to gastroenterology, 11 patients to the surgical team, and 3 to both teams. 12 of these were seen as “2 week-wait” referrals.

132 of the 194 patients were found to have no pathology. Positive findings include pancreatic cancer (4), acute pancreatitis (4), cholelithiasis (11), choledocholithiasis requiring ERCP (2), macroamylasaemia (1), raised salivary amylase (1). 3 further patients had been recently discharged by the surgical team with acute pancreatitis.

Of the 6 patients with serum amylase greater than 300 U/L, 5 had a diagnosis of acute pancreatitis (3 were admitted shortly after blood tests, and 2 had been recently discharged from surgical wards).

Conclusions Diagnostic value of serum amylase is limited beyond the investigation of acute pancreatitis, when it should be a supportive test to a clinical diagnosis. When index of suspicion is high, these patients should be referred directly to hospital without waiting for outpatient results. While pathology including pancreatic malignancy was diagnosed in a small number of patients, it is unlikely that the mildly elevated