

PWE-052 WHY COLONOSCOPY DOES NOT PREVENT RIGHT SIDED COLORECTAL CANCER?

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Introduction Colonoscopy is widely used for colorectal cancer screening and prevention. There is good evidence that it is associated with lower CRC mortality due to fewer deaths from left-sided cancers. Unfortunately it seems to be less effective in preventing right-sided colorectal cancers (1.2). There are several plausible causes for this finding. One of the reasons could be that right sided lesions are more difficult to detect due to different morphological characteristics.

Methods The adenoma detection rates (ADR) across the East of England within the Bowel cancer screening programme are monitored as part of the QA process. 30 colonoscopists across 8 screening centres achieved ADRs for 2012 varying from 60.1% to 32.7% with 26/30 above the QA standard of 35%ADR. We looked in detail at the ADRs of two colonoscopists in Norwich, who achieved ADRs of 60.1% (endoscopist A) and 35.3% (endoscopist B), over a 2 year timespan.

Results Endoscopist A performed 441 colonoscopies and endoscopist B 544.

Endoscopist A detected 815 adenomas and endoscopist B 545 ($p < 0.0001$), with endoscopist A recorded no adenoma or cancer in 125/441 patients vs endoscopist B 251/544 ($p < 0.0001$). Each endoscopist detected similar numbers of pedunculated adenomas (112/441 vs 130/544) ($p = 0.5866$) but endoscopist A identified significantly more sessile adenomas 700/441 vs 409/544 ($p < 0.0001$).

Adenomatous polyps were graded by size: > 10 mm A 113/441 vs B 95/544 ($p = 0.0018$); 6–10 mm A 165/441 vs B 132/544 ($p < 0.0001$); and < 6 mm A 537/441 vs B 318/544 ($p < 0.0001$).

Endoscopist A detected more adenomas proximal to the splenic flexure 425/441 vs B 205/544 ($p < 0.0001$), whereas the ADRs distal to the splenic flexure were similar A 330/441 vs B 340/544 ($p < 0.0001$).

Endoscopist A had a higher completion rate of 99.7% compared with 94.67% for endoscopist B ($p < 0.0001$). Withdrawal times were similar (for procedures in which no polyps were found) A 10.59 min vs B 9.28 min.

Conclusion Sessile polyps in the right colon are commonly overlooked even by expert bcsc accredited colonoscopists. Over half the patients discharged from the programme by endoscopist B with a “normal” colon have had a small right sided adenoma overlooked and it seems likely this is the reason that colonoscopy fails to prevent the development of right sided colonic cancer. The current QA standard for ADR in bcsc is too low at 35%. The current JAG QA standard for ADR among the wider colonoscopy community is 10% and it is likely that this problem is widespread.

Disclosure of Interest None Declared.

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PWE-053 EUS-FNA AND PET-CT IN THE STAGING OF MEDIASTINAL LYMPHADENOPATHY IN MALIGNANT DISEASE

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Introduction EUS +/- FNA is commonly used in the nodal staging of upper GI, lung and other malignancies, but the increasing availability of PET-CT has led to a reduction in its use in some centres. However the accuracy of PET-CT in staging mediastinal nodes in particular is unclear. Our aim was to analyse the concordance of PET-CT and EUS+FNA in the staging of mediastinal nodes in malignant disease in one tertiary referral centre.

Methods Electronic reports for all patients attending for EUS between January 2009 and December 2012 were reviewed. Patients who had both mediastinal node sampling and a PET-CT were included for analysis. Using a positive EUS+FNA result as a definitive diagnosis of lymph node involvement, the accuracy, sensitivity, specificity, positive (PPV) and negative predictive values (NPV) of PET-CT in the staging of mediastinal lymph nodes were calculated. The final staging pathway and patient outcomes were also analysed.

Results A total of 77 nodes in 74 patients were sampled (51M, 23F; median age 66). The primary diagnosis was that of oesophageal cancer in 56 patients (38 adeno and 18 squamous); lung cancer in 11 patients; gastric cancer in 3 patients and other malignancies in 4 patients. The FNA cytology results were positive, negative and indeterminate in 32 (42%), 39 (51%) and 6 (8%) cases respectively. The cytological indeterminate nodes were excluded from further analysis. The sampled nodes were positive, negative and indeterminate on PET-CT in 49 (64%), 26 (34%) and 2 (3%) cases respectively. For all patients, the sensitivity, specificity, PPV, NPV and accuracy of PET-CT were 97%, 54%, 63%, 95% and 73% respectively. For the subgroup with oesophageal cancer the sensitivity, specificity, PPV, NPV and accuracy were 94%, 62%, 57%, 95% and 73%. EUS+FNA altered the cancer staging and changed the patient pathway in 14 patients (20%).

Conclusion PET-CT has a poor specificity and PPV for the diagnosis of malignant mediastinal lymph nodes, resulting in a high false positive rate and potential over staging. Therefore EUS-FNA remains an essential part of the staging process for these patients

Disclosure of Interest None Declared.

PWE-054 PRELIMINARY EXPERIENCE OF HEMOSPRAY IN THE MANAGEMENT OF DIFFUSE PORTAL HYPERTENSIVE BLEEDING

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Introduction Hemospray is a novel powder licenced in Europe and Canada for endoscopic hemostasis of non-variceal upper gastrointestinal bleeding. Portal hypertensive gastropathy (PHG), enteropathy or colopathy develop in many patients with portal hypertension. These conditions often present with chronic anaemia. However they can also result in acute blood loss which is difficult to treat due to the diffuse nature of bleeding.

Methods We present data from 4 consecutive patients presenting to our institution with acute haemorrhage secondary to non-variceal diffuse portal hypertensive bleeding, which was treated with Hemospray.

Results Patient 1- a 67 year old man with alcoholic liver disease and cirrhosis attended for variceal screening gastroscopy. At the time he was found to have active bleeding from severe PHG. Hemospray was applied to this area achieving hemostasis, with no complications. Elective repeat gastroscopy at 4 weeks showed moderate PHG with no active bleeding and he had no clinical rebleeding by 6 weeks. Patient 2- a 74 year old lady with cryptogenic cirrhosis and transfusion dependent anaemia secondary to PHG despite beta-blockers, presented with an acute upper gastrointestinal bleed. Gastroscopy showed active bleeding from diffuse antral PHG. Argon beam diathermy failed to achieve hemostasis, therefore Hemospray

was applied resulting in bleeding cessation. She had self limiting post-procedural abdominal pain but no evidence of perforation on imaging. No clinical rebleeding occurred during the next 6 weeks, although she continued to require 2-weekly transfusions as before for her chronic anaemia. Patient 3 – a 72 year old man with advanced hepatocellular carcinoma, cirrhosis due to hemochromatosis, and transfusion dependent anaemia despite beta-blockers, presented with fresh rectal bleeding. Flexible sigmoidoscopy demonstrated severe portal hypertensive colopathy with active bleeding. Hemospray was applied and hemostasis achieved. He had no complications and no further rectal bleeding by 6 weeks. There was evidence of reduced transfusion requirements during this 6 week period. Patient 4 – a 66 year old lady with decompensated alcohol related cirrhosis presented with abdominal pain and melena. Emergency gastroscopy revealed active bleeding from severe proximal PHG. Hemospray was applied leading to hemostasis. Following the procedure the patient developed increasing abdominal pain and imaging showed evidence of free peritoneal air. She was deemed unfit for surgical intervention due to her co-morbidities and died of sepsis secondary to perforated abdominal viscus 4 days following the procedure.

Conclusion Hemospray appears to achieve hemostasis in acute non-variceal portal hypertensive bleeding. Further data are required on the outcome and safety of Hemospray use in this condition.

Disclosure of Interest None Declared.

PWE-055 ENDOSCOPIC ULTRASOUND GUIDED RADIOFREQUENCY ABLATION (EUS-RFA) FOR PANCREATIC DUCTAL ADENOCARCINOMA

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Introduction The five year survival for pancreatic ductal adenocarcinoma (PDAC) is less than 5% in spite of the advances in management of cancers in the last few decades. Even though surgical resection remains the only potentially curative treatment for PDAC, only 10–20% of patients are candidates for pancreatic resection with almost 50% of patients having distant spread of tumour and approximately one-third manifesting locally advanced disease. Kahaleh and colleagues have demonstrated that EUS guided RF ablation (EUS-RFA) of the pancreatic head using Habib EUS-RFA catheter (Emcision Ltd, UK) was well tolerated in 5 Yucatan pigs and with minimal pancreatitis (1). The aim of this report is to outline the feasibility, safety, complications and early results of EUS-RFA using Habib catheter in patients with inoperable PDAC.

Methods Seven patients underwent EUS-RFA of PDAC. A novel monopolar radiofrequency (RF) catheter (1.2 mm Habib EUS-RFA catheter, Emcision Ltd, London) was placed through a 19 or 22 gauge fine needle aspiration (FNA) needle after FNA was performed.

Results Seven patients had EUS-RFA of PDAC with a median age of 69 (range 50 – 77) years. There were 3 female and 4 male patients. Five patients had PDAC in the head of pancreas whilst two had in the body of pancreas. RF was applied at 5 watts, 10 watts and 15 watts in an incremental manner in 1, 3 and 3 patients respectively. The median number of applications were 3 (range 2 – 4) and each application was 90 seconds. The EUS-RFA was completed in all patients. The mean size was 35.2mm and the post procedure imaging in 3–6 months showed decrease in size of the lesion in two

patients, whilst the lesions were unchanged in the rest of the patients. There were no early complications like injury or perforation of duodenal or gastric wall, bleeding or severe pancreatitis. All patients stayed overnight after the procedure for observation and four were discharged next day and there were no readmissions post procedure due to pain. One patient had mild pancreatitis which settled with conservative management and was discharged 3 days post procedure.

Conclusion EUS-RFA of PDAC with a novel monopolar RF probe was well tolerated in 7 patients. The initial results suggest that the procedure is technically relatively easy and safe

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PWE-056 CANCER IS THE LEADING CAUSE OF HOSPITAL DEATH IN 30 DAY MORTALITY AUDIT FOLLOWING ENDOSCOPY

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Introduction Mortality post endoscopy is a quality standard for all endoscopy units. Many of the published 30 day mortality studies relate specifically to those presenting with gastro-intestinal bleeding or following a therapeutic procedure, rather than for any indication or after any endoscopic procedure.

Methods We reviewed all hospital deaths occurring within 30 days following any endoscopic procedure in 12 months from 1 January 2011 to 31 December 2011, at Derriford Hospital. Data was available from Clinical coding by linking the endoscopy database with the death registry. All patients' case notes were analysed and data collected including patient demographics, indications for the procedure, type of procedure, immediate post procedure complications and cause of death.

Results There were 13310 procedures performed (gastroscopy 6224; colonoscopy 4660; flexible sigmoidoscopy 1920; ERCP 348; other procedure 158). 146 patients died within 30 days of their endoscopy (all cause mortality 1.0%). Of these, 118 patients died in hospital (81%) and 28 patients died within the community (19%). 35/118 (30%) of hospital patients died within 7 days of the procedure. Cancer was the leading cause of hospital death, accounting for 35/118 (30%); GI Cancer accounted for 24/35 (69%) and Non GI Cancer 11/35 (31%). Other causes were pneumonia 22/118 (19%); upper GI bleeding 8/118 (7%); vascular complications 16/118 (14%). All deaths from upper GI bleeding occurred within 7 days and 12/16 (75%) deaths from vascular complications occurred after 7 days. 30 day all cause mortality rates for each procedure were: colonoscopy 0.7%; ERCP 2.2%; flexible sigmoidoscopy 0.9%; upper GI endoscopy 2%; others 1.6%. Two patients had perforated distal bowel after having had flexible sigmoidoscopy (procedure related death, 2/13,283; 0.015% or 1.5 in 10,000). There were no other procedure related deaths. Eight patients died on the same day of their procedure due to uncontrolled bleeding (n = 3), acute kidney injury (n = 1), multi-organ failure following ERCP for cholangitis (n = 1), respiratory failure (n = 2) and acute ischaemia of stomach (n = 1). There were no sedation related complications nor use of reversal agents.

Conclusion Deaths within 30 days following an endoscopic procedure are most likely associated with cancer or pneumonia with