or irradiation. Recent multicentre trials suggest a sensitivity of approaching 90% in detecting significant polyps[1 2] but there are no data regarding use in routine clinical practice.

Methods Alternative modalities of colonic investigation were discussed with all patients requiring investigation. Data were collected prospectively on those undergoing colon capsule endoscopy following a standard bowel preparation. Small bowel patency was confirmed in patients with Crohn's disease using the Agile patency system.

Results 86 patients (67F; median age 42 (range 18–95)) underwent CCE (CC1, n=34; CC2, n=52). 81.4% had refused (n=43) or had had incomplete (n=27) colonoscopy. Indications: symptoms without alarm features (n=31), symptoms with alarm features (weight loss, bleeding, condition associated with malignancy; n=14), Crohn's disease (n=17), symptoms with abnormal blood test results; n=15), anaemia (n=6), miscellaneous (n=3). CCE was complete in 79.5% (n=66), incomplete in 19.8% (n=17), 3.5% failed (one patient did not swallow the capsule; two provided no images). Median (range) time in the small and large bowel were 63.5 (0–424) and 121 (0–1020) min respectively and bowel cleanliness score 2 (1–4: excellent-poor). Findings were normal (31.4%), inflammatory bowel disease (IBD 25.6%: Crohn's disease, n=13; ulcerative proctitis, n=1; NSAID colopathy, n=1; inflammation of uncertain significance, n=7), polyps (22.1%), diverticulosis (12.8%), angioectasia (5.8%), miscellaneous (3.5%), no images (3.5%). These were considered relevant to the indications in 25.6% (n=22, 15 of which were IBD). Outcomes included discharge (47.7%) and management change based on the findings (37.2%, including commencing (16.3%) or cessation (2.3%) of IBD therapy, further investigation (14.0%), advice regarding polyp surveillance (3.5%) and other treatment (2.3%). Half of the 20 patients with incomplete or failed studies were offered further investigations, six studies were considered sufficient to exclude organic disease, three showed active Crohn's disease and one patient was too ill for further investigation. There were no complications.

Conclusion CCE is an alternative for patients who refuse or have incomplete colonoscopy and which provides both small and large bowel visualisation. Although one in five studies were incomplete, sufficient information was provided to enable discharge in almost half the patients with functional bowel disorders and the identification of IBD in one quarter.

Competing interests None declared.

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PWE-220 HOW MANY BIOPSIES AT COLONOSCOPY ARE REQUIRED TO CONFIRM THE DIAGNOSIS HISTOLOGICALLY IN SUSPECTED COLORECTAL CANCER?

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Introduction Colorectal cancer (CRC) is the third most commonly diagnosed cancer worldwide. The prognosis depends to a large extent on the stage of disease at the time of diagnosis such that the early investigation of relevant signs and symptoms is encouraged. At present the gold-standard method for the investigation of CRC is endoscopy as it permits direct visualisation and biopsy of the lesion in question. There is little evidence on the number of biopsies needed to be obtained if a CRC is suspected macroscopically at the time of endoscopy but there is a suggestion that a minimum of six biopsies should be taken to increase the yield of an early positive diagnosis.[1] Patients in whom the endoscopy biopsy is non-diagnostic and cancer suspected, a repeat colonoscopy to obtain additional tissue sample is often recommended. The aims of this study were to assess whether the number of biopsies taken of suspected cancers at the time of endoscopy was proportional to the rates of positive diagnoses being made while reducing the need for a repeat endoscopic procedure to confirm or exclude cancer.

Methods A retrospective analysis of all patients with suspected CRC upon endoscopy at Chase Farm Hospital over a 1-year period (2009–2010) was performed. Data were obtained from endoscopy and histopathology reports. Statistical analysis was performed using the Student t test and Fisher's test using SPSS V.20.0 ($p<0.05$).

Results 80 patients (37 male), median age 71.5 years were investigated over the audit period. Histology revealed adenocarcinoma (ACA) 52 (65%), high-grade dysplasia (HGD) 20 (25%), normal 5 (6.3%) and other 3 (3.7%). The median number of biopsies taken of suspected cancers for the whole cohort was 6 (1–12) and 44 (55%) had six or more biopsies taken. 16 (20%) patients required at least one repeat endoscopic procedure for diagnostic purposes (initial histology was HGD in 10, 62.5%, of these patients) and histology upon repeat endoscopy demonstrated ACA in 14 (87.5%) of these patients. Patients requiring repeat endoscopy had significantly fewer biopsies (median 4.5) taken at the time of initial endoscopy compared to those who did not (median 5.5), t (76)=2.54, $p<0.05$ using the Student t test. Patients requiring a repeat endoscopic procedure were more likely to have had less than six biopsies taken initially (11, 68.7%) compared to patients who had six or more biopsies taken (5, 31.3%) although the difference was not significant ($p=0.05$).

Conclusion Patients who have fewer biopsies are more likely to require repeat endoscopy for histological confirmation with subsequent delays in diagnosis. We recommend obtaining a minimum of six endoscopic biopsies in patients with suspected macroscopic CRC to confirm the diagnosis histologically and prevent a repeat endoscopy.

Competing interests None declared.

PWE-221 ENDOSCOPIC ULTRASOUND GUIDED FINE NEEDLE ASPIRATION (EUS-FNA) IN SUSPECTED SARCOIDOSIS—A 4-YEAR EXPERIENCE FROM A SINGLE CENTRE

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Introduction EUS-FNA allows access to the posterior mediastinum and tissue acquisition under real-time ultrasound guidance through the oesophageal wall. There is ample evidence for effectiveness of EUS-FNA in staging lung cancer but data on its utility in the diagnostic work up of sarcoidosis is limited. The aim of this study was to report our experience of mediastinal EUS-FNA as a whole and its diagnostic yield in sarcoidosis in particular.

Methods The study included all patients who underwent mediastinal EUS-FNA in our institution from January 2008 to December 2011. Data on patient demographics, mediastinal lesion characteristics and EUS-FNA details were collected from endoscopy reports. Cytology reports and microbiology culture results were analysed. Final clinical diagnoses made during the follow-up were obtained from medical records. We calculated sensitivity, specificity, positive predictive value (PPV) and negative predictive value (NPV) of mediastinal EUS-FNA for individual diagnoses.