Introduction PET CT is a non-invasive imaging modality that is widely used in the imaging work up of malignant disease. It has been postulated that due to 18FDG accumulation in adenomatous polyps, PET CT using 18FDG may detect early premalignant colorectal lesions. The aim of our study was to assess the performance of 18FDG PET CT in the detection of significant colorectal lesions namely adenomas or villous adenomas >1 cm in size and to assess whether endoscopy in all patients with focal FDG colonic uptake on PET CT is justified by the detection rate.

Methods A retrospective review of patients who had 18FDG PET CT at the Pennine Acute Hospitals NHS Trust, Manchester as part of their staging for various cancers between February 2007 and October 2011 was conducted by a review of the reports of the examinations.

Results 1553 patients between the ages of 17 and 93 years (median age 55 years) had 18FDG PET CT performed during this period. Increased focal FDG uptake in the colon was detected in 179 of 1553 patients studied (11.5%). Endoscopic evaluation was performed in 71 (39.7%) of these patients, flexible sigmoidoscopy in 25 (35.2%) and colonoscopy in 46 (64.8%). Non-malignant pathology was found in 45 of 179 patients (25.1%); 17 (9.5%) were tubulovillous adenomas; 6 (3.4%) had villous adenomas; 9 (5.0%) were tubular adenomas; 4 (2.2%) hyperplastic polyps; 11 (6.1%) were normal colonic tissue and 1 (0.6%) was active inflammatory bowel disease. From the patients with increased 18FDG uptake in the colon, 19 (10.6%) were subsequently found to have adenocarcinoma on histology. This represents 26.8% of the 71 patients who received endoscopic evaluation.

Conclusion The presence of focal colonic 18FDG uptake on PET CT scan justifies endoscopic evaluation in all patients where treatment may be clinically appropriate.

Competing interests None declared.

Magnetic Resonance Enterography for the Assessment of Crohn’s Disease: Changing Imaging Paradigms?

Introduction Recent advances in the immunopathogenesis and therapy of inflammatory bowel disease (IBD) coupled with bolder definitions of disease control have led to increasing reliance on imaging. Increased awareness of the potential downstream effects of ionising radiation has placed more emphasis on radiation-free imaging. We aimed to assess the role of magnetic resonance enterography (MRE) in assessing Crohn’s disease.

Methods We conducted a retrospective review of 141 consecutive MRE studies performed between June 2009 and November 2010. Clinical data were obtained from electronic patient record review. Inflammatory markers, radiological investigations and ileocolonoscopy when performed within 90 days of MR enterography were recorded. MRE reports were recorded using accepted activity criteria- small bowel dilatation, stenosis, wall thickening, enhancement, mucosal irregularity, mesenteric inflammation, hyper-vascularity, lymph node enlargement, abscesses, fistulation and extraintestinal features.

Results Of 67 patients with IBD, 60 had Crohn’s disease and 59 examinations were complete. Thirty-nine of 67 patients were female, mean age 34 (range 16–68) and median disease duration of 5 years (range 0–39). Abnormalities were noted in 47 MRE scans; 34 had active non-stricturing, 12 active strictureing and one fibrostenotic disease. Within the active groups, there were four fistulae and three abscesses in four patients. Ileocolonoscopy was performed in 14 of these patients with 12/14 showing active colitis and raised CRP in 11/16 within 90 days of MRE. Treatment was increased in 4% of the active non-stricturing group, 3/6 to azathioprine, 8/16 to infliximab, 4/16 to surgery with no change to treatment in the remaining patients, of whom 4/8 had normal ileo-colonoscopy and 15/16 normal CRP. In 85% of active strictureing patient treatment was increased, one to azathioprine, six to biologics, three to surgery. Four of 12 patients in this group had an elevated CRP and 4/7 had active colitis at ileo-colonoscopy. Of 12 normal MRE, treatment was not increased in 92%. Of these, CRP was normal in 10/11 and ileocolonoscopy normal in 4/7. Treatment was increased in one to biologics, with an elevated CRP and moderately severe colitis at colonoscopy. The fibrostenotic subject had normal CRP and mild colitis at colonoscopy; and proceeded to surgery. All the abscess/fistula subjects had raised inflammatory markers. Two were referred for surgery, one started biologics and one treated with antibiotics.

Conclusion The small bowel remains difficult to assess endoscopically. MRE adds to the assessment of patients with Crohn’s disease, in addition to endoscopy and biological markers identifying patients with active disease where treatment escalation may result in meaningful benefit.

Competing interests None declared.