Radiology

PWE-118

A COMPARISON OF SMALL BOWEL MRI WITH SMALL BOWEL FOLLOW THROUGH AND ILEO-COLONOSCOPY IN PATIENTS WITH SMALL BOWEL CROHN'S DISEASE IN A NON-UNIVERSITY SETTING

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R K Felwick,[1,*] J Elford,[2] G Matthews,[1] J N Gordon[1] *[1]Department of Gastroenterology, Royal Hampshire County Hospital, Winchester, UK; [2]Department of Radiology, Royal Hampshire County Hospital, Winchester, UK*

Introduction In the UK small bowel follow-through (SBFT) is the current standard for investigating small bowel Crohn's disease. However advances in small bowel MRI (SB-MRI) mean that it is now a viable alternative with the advantage of no ionizing radiation and the potential ability to differentiate active from inactive disease and identify extra-intestinal pathology. We therefore wished to analyse the clinical utility of SB-MRI in the investigation of small bowel Crohn's disease, and correlate the findings with SBFT, ileo-colonoscopy and inflammatory markers.

Methods Data was prospectively collected on 100 sequential patients with small bowel Crohn's disease who underwent SB-MRI over the last year. 48 patients also underwent parallel SBFT, 53 parallel ileo-colonoscopy and 80 patients had inflammatory markers measured. Results from the 3 groups were compared.

Results SB-MRI and SBFT were equally effective in identifying the presence or absence of small bowel Crohn's disease. However SB-MRI was more accurate in the identification of strictures and allowed more precise localisation. In addition MRI was able to differentiate active from inactive disease, identify extra-intestinal pathology and provide information on colonic involvement. SB-MRI estimation of disease activity correlated well with both endoscopic and histological findings, with 93% of patients correctly identified as having either active or quiescent disease. Inflammatory markers correlated poorly with MRI, endoscopic and histological findings with 46% of patients with active disease by any modality having a normal CRP or ESR.

Conclusion SB- MRI is superior to SBFT in the investigation of small bowel Crohn's disease as in addition to identifying structural disease it provides information on stricture location, disease activity, colonic involvement and extra-intestinal pathology without exposing patients to ionising radiation. We believe that SB-MRI should now replace SBFT as the investigation of choice for small bowel Crohn's disease.

Competing interests None.

Keywords Barium follow through, Crohn's disease, Magnetic resonance imaging.

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