

FIT does not predict small bowel pathology in patients with IDA and negative bidirectional endoscopy- a prospective study

Introduction: The role of faecal immunochemical testing (FIT) as a biomarker to stratify patients with lower gastrointestinal (GI) symptoms is well established. However, its use in patients with iron deficiency anaemia (IDA) is controversial. The aim of this study was to investigate the role of FIT in predicting small bowel (SB) pathology in patients with IDA.

Methods: This was a prospective study which included patients with IDA and a FIT test performed in the community. Adult patients who met the inclusion criteria were invited to have a Small Bowel Capsule Endoscopy (SBCE) prior to bidirectional endoscopy. Patients with an upper or lower gastrointestinal tract malignancy were excluded as this was a significant finding which could explain the cause for IDA. Patients were split into two groups. Group-1: IDA & Positive FIT (> 4 ug Hb/g); Group-2: IDA & Negative FIT. Patients demographics, past medical history, medication history, haemoglobin and ferritin results, FIT levels and capsule endoscopy findings were recorded.

Results: 40 Group-1 patients (median age 68.5 years (IQR 56-76); 45% male) had a median haemoglobin of 101 g/L (IQR 95.0- 112.0) ferritin 11.5 (IQR 9- 18) and median FIT 20 (IQR 12.5-44). 37 Group-2 patients (median age 61.0 years (IQR 51-72); 51% male) had a median haemoglobin of 103 g/L (IQR 96.0- 118.0) and ferritin 13.0 (IQR 7- 16). Overall diagnostic yield of SBCE in patients with IDA was 46.7% with no significant difference between the groups ($p=0.8$). In 19 (24.6%) patients from Group-1 there was significant pathology identified on SBCE (angioectasia- 14, visible blood- 1, polyp-1, NSAID enteropathy-1, coeliac-1 and stricture-2). In 17 (22.0%) patients from Group 2 there was significant pathology identified on SBCE (angioectasia-10, visible blood- 1, NSAID enteropathy-2, erosions & ulcers-2, SB Crohns-1 and coeliac-1). Some patients had more than one lesion on SBCE. The sensitivity, specificity, PPV and NPV of a positive FIT predicting SB pathology was 47.5%; 54.05%; 52.78% and 48.78% respectively. 7 patients in Group-1 and 5 patients in Group-2 admitted to using NSAIDs post-procedure although they had not revealed this during their pre-procedure medication documentation.

Conclusion: In patients with IDA and no clear cause seen at conventional upper and lower endoscopy, small bowel pathology was present in almost half of cases although this was not predicted by the FIT result. Capsule endoscopy should be considered in these cases. Regular NSAID use can cause significant SB pathology. It is important to screen for NSAID use prior to SBCE. Studies with larger numbers are needed to assess correlation between FIT and SB pathology in patients with IDA.