Digestive Diseases and Sciences (2018) 63:1367
https://doi.org/10.1007/s10620-018-5017-4

CORRESPONDENCE

Isolated Terminal Ileitis: When Is It Not Crohn's Disease?

Stefania Chetcuti Zammit[1] · Mark E. McAlindon[1] · Melissa F. Hale[1] · Reena Sidhu[1]

Received: 1 March 2018 / Accepted: 7 March 2018 / Published online: 13 March 2018

We have read with interest the article entitled: "Isolated acute terminal ileitis without preexisting inflammatory bowel disease rarely progresses to Crohn's disease." Only 4.6% of 108 patients with acute terminal ileitis (TI) diagnosed at ileocolonoscopy developed Crohn's disease (CD) [1]. There is paucity in the literature on how best to manage patients with TI and what percentage of these patients eventually develop CD [2]. More specifically, the literature is even more limited when it comes to patients with isolated terminal ileitis (ITI) on small bowel capsule endoscopy (SBCE) [3]. Ideally, patients with TI secondary to CD should be picked up without delay to ensure treatment is initiated early in the course of disease to prevent long-term sequelae.

We conducted a study on 23 patients (mean 39 years; 57% females) with ITI on SBCE and compared these to 27 patients (mean 39 years; 59% females) with terminal ileal Crohn's disease (TICD). Patients with a recent history of gastroenteritis, NSAIDs, and angiotensin receptor blockers use were excluded. Only 17% of patients with ITI had evidence of minor findings on ileocolonoscopy including erosions/aphthous ulcers with histology showing non-specific inflammation in 50% of patients. All patients with ITI (5) who underwent SB MRI had a normal investigation compared to the TICD group in whom SB MRI was abnormal in 75%. Findings at ileocolonoscopy and imaging are similar to those presented in this study where patients who eventually developed TICD were more likely to have abnormal findings at ileocolonoscopy and on SB imaging.

Blood parameters including mean fecal calprotectin (160 vs. 99 µg/g; $p=0.791$) and mean CRP (13 vs. 7 mg/L; $p=0.209$) were higher in the TICD group compared to the ITI group, although these did not reach statistical significance.

We were also able to compare the findings of the two groups on SBCE. The mean number of ulcers on SBCE in TI was significantly less in the ITI group (3) than in those with TICD (5) ($p=0.005$). There was luminal narrowing in 2 patients (7%; $p=0.493$) and mucosal edema in 10 patients with TICD (37%; $p=0.001$). While patients with ITI had more aphthous/small ulcers, patients with TICD had more circumferential, deep, large, linear ulcers ($p=0.018$).

Follow-up data for an average of 9 months were available for 78% (18) of the ITI group. 80% of those who underwent a repeat SBCE showed an improvement in the findings which corresponded to an improvement in CRP (3 mg/L at index presentation vs. 7 mg/L; $p=0.523$). At follow-up 39% improved clinically without treatment, while 33% were treated as IBS. One patient who was treated with budesonide improved.

Our study demonstrates that SBCE can provide another modality of investigating patients with TI and of distinguishing idiopathic TI from CD. It further confirms that patients with abnormal SB imaging are more likely to have underlying CD. Patients with ITI are likely to have milder findings on SBCE compared to TICD group, and they are more likely to improve over time without treatment. Larger studies would help substantiate our findings.

References

1. Tse CS, Deepak P, Smyrk TC, Raffals LE. Isolated acute terminal ileitis without preexisting inflammatory bowel disease rarely progresses to Crohn's disease. *Dig Dis Sci*. 2017;62:3557–3562.
2. O'Donnell S, Crotty PL, O'Sullivan M, et al. Isolated active ileitis: is it a mild subtype of Crohn's disease? *Inflamm Bowel Dis*. 2013;19:1815–1822.
3. Lee HS, Lim YJ, Shim KN, et al. Diagnostic value of small bowel capsule endoscopy in isolated ileitis: a CAPENTRY study. *Dig Dis Sci*. 2017;62:180–187.

✉ Stefania Chetcuti Zammit
stf_che@yahoo.com

[1] Sheffield Teaching Hospitals NHS Foundation Trust, Sheffield, UK