ABSTRACT: The aim of this study was to determine the diagnostic utility of endoscopic biopsies in isolated terminal ileal ulcers. Though a large number of terminal ileal biopsies are being performed frequently, the value added to diagnostic possibility is not clear, and there are few published data on the diagnostic value of TI biopsies. Hence, this study was performed to obtain objective data on this subject, as there are currently few data available in the literature. This observational study group included a total of 61 men and women with indication for colonoscopy and terminal ileal biopsy. Patients in whom the colonoscopy revealed isolated terminal ileal ulcers of size < 1 cm were included in the study. In the study, Terminal ileal mucosa with non-specific changes was identified, in 78.7%. Majority 29.5% were between 31-40 years of age, predominantly men.

KEYWORDS: Isolated terminal ileum, Biopsy, Colonoscopy.
The study group included both men and women with indication for colonoscopy and terminal ileal biopsy. The indications for investigations in all patients included abdominal discomfort or pain, constipation, diarrhea, gastrointestinal bleeding, and anemia under evaluation, in whom involvement of terminal ileum was highly suspected. Criteria for the study.\(^{(3,4,5)}\)

**INCLUSION CRITERIA:** Patients in whom the colonoscopy revealed isolated terminal ileal ulcers of size <1 cm were included in the study.

The sizes of the ulcers were measured using open biopsy forceps when taking routine biopsies.

**EXCLUSION CRITERIA:**
- Patients with isolated terminal ileal ulcer > 1 cm size.
- Concomitant findings in the rest of the colon on colonoscopy.
- Known case of inflammatory bowel disease.
- Age of the patient <18yrs.

The study was approved by the Ethics committee of Sri Ramachandra University.

**METHODS: Pathological Evaluation:** A routine biopsy was usually taken from the edge of ulcers once small bowel ulcer was identified with ileoscopy. The biopsy specimens were kept in formalin and processed with routine hematoxylin-eosin staining. Microscopic observations were interpreted based on a routine histopathology protocol. Immunohistochemical staining or acid-fast staining was used when lymphoma, tuberculosis, etc. were suspected.\(^{(6,7)}\)

**DISCUSSION:** Intubation and biopsy of the TI during colonoscopy has become a standard procedure in the evaluation and management of patients suspected or known to have inflammatory bowel disease.\(^{(8)}\) The most important use of this procedure is in patients suspected of having Crohn’s disease, as the TI is the most common site of involvement in this disease. Finding chronic ileitis on TI biopsy material, in the right clinical context, is diagnostic of Crohn’s disease.\(^{(9)}\)

On the other hand, finding no significant abnormality on TI biopsy material may help to exclude the diagnosis of Crohn’s disease, at least in some patients.

We analyzed 61 consecutive patients with Terminal ileal biopsies and compared the histologic findings with the clinical details like age, sex, indications for Terminal ileal intubation and biopsy. In addition, we determined the diagnostic yield of terminal ileal biopsies compared with the procedure indications and endoscopic abnormalities.

In our study, histologically unremarkable Terminal ileal mucosa with non-specific changes was identified, with 78.7% having non-specific histological changes. The most common indication was abdominal pain with 50.8%, followed by chronic diarrhoea 23%, constipation 16.4%,\(^{(10)}\) bleeding p/r 4.9%,\(^{(1)}\) anemia 3.3%\(^{(8)}\) and weight loss 1.6%.\(^{(2)}\)
RESULTS: The total number of subjects were 61 (n=61).

Out of the 61 patients studied with isolated small terminal ileal ulcers of size <5mm, majority of the biopsies 78.7% showed non-specific pathological changes, 6.6%(3) showed f/s/o inflammatory process, 4.9%(1) showed f/s/o of eosinophilic enteritis, rest f/s/o of TB, f/s/o IBD-Crohn’s disease, mild active colitis, mild cryptitis, low grade inflammatory process, focal active colitis were all seen as 1.6% (1 case) each.

Majority 29.5% were between 31-40 years of age, 26.2% were between 41-50yrs, 26.2% were between 18-30yrs, 18%(11) were above 50yrs. In which the predominant number being males 59% and remaining 41% were females.

Significant number of patients presented with pain abdomen 50.8%, next common presentation was chronic diarrhea 23%, followed by constipation 16.4%,(10) 4.9%(1) had bleeding pr, 3.3%(8) had anemia under evaluation, and 1.6%(1) had significant weight loss.
CONCLUSION: In conclusion our patients having pain abdomen or chronic diarrhea with isolated terminal ileal ulcers, 78.7% of the biopsies showed non-specific pathological change while only 1.6% showed features suggestive of inflammatory process, mild active colitis or Crohn’s disease in each, suggesting low yield for diagnosis.

Hence we conclude that along with terminal ileal biopsies a complete small bowel evaluation is needed, for high yield of the diagnosis.

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