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Polyfistulous Perineum: What is the Contribution of Colonoscopy to the Etiological Workup?

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Abstract **Original Research Article**

Polyfistulous perineum is a rare but indicative clinical manifestation of several chronic digestive disorders, particularly Crohn's disease and intestinal tuberculosis. Colonoscopy, especially when it includes exploration of the terminal ileum, plays a crucial role in the etiological diagnosis of this condition. This retrospective study, conducted on 32 patients presenting with a polyfistulous perineum, aimed to assess the contribution of colonoscopy in identifying associated digestive lesions. Endoscopic abnormalities were found in nearly 59% of cases, guiding the diagnosis towards Crohn's disease in more than half of them, followed by ileocolic tuberculosis. These findings highlight the importance of colonoscopy as a first-line tool in the diagnostic evaluation of polyfistulous perineum, enabling the initiation of specific and early management.

Keywords: Polyfistulous perineum, Colonoscopy, Crohn's disease, Intestinal tuberculosis, Etiological diagnosis.

INTRODUCTION

Polyfistulous perineum, defined by the presence of multiple fistulous openings and inflammatory tracts in the perineal region, is a complex and often debilitating condition. It may reveal a wide range of underlying etiologies, from chronic inflammatory bowel diseases (IBD), particularly Crohn's disease, to infectious, post-traumatic, or neoplastic causes. Accurate identification of the underlying etiology is essential to tailor the therapeutic strategy, prevent recurrence, and avoid complications.

Colonoscopy is a key investigative tool in the etiological workup of polyfistulous perineum. It enables direct assessment of the colonic and ileal mucosa, identification of inflammatory, ulcerated, or pseudopolypoid lesions, and the performance of targeted biopsies. In the specific context of IBD, colonoscopy may allow for a positive diagnosis, topographic classification, and long-term monitoring. However, its diagnostic yield in the initial evaluation of polyfistulous perineum remains under-documented.

The aim of this study is therefore to assess the contribution of colonoscopy in the etiological diagnosis of polyfistulous perineum by identifying associated colonic abnormalities and clarifying the indications for this examination within the overall diagnostic approach.

PATIENTS AND METHODS

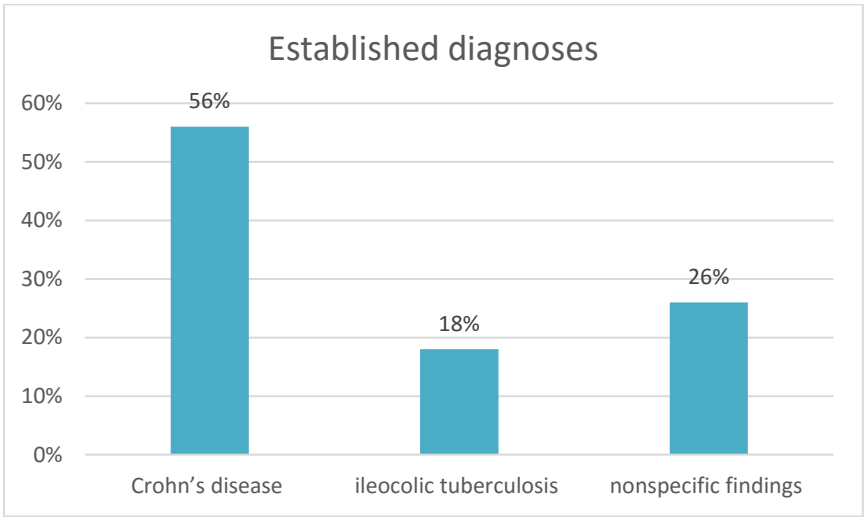
This was a retrospective and descriptive study conducted in the Gastroenterology Department between December 2023 and December 2024, including all patients hospitalized and followed in proctology for polyfistulous perineum.

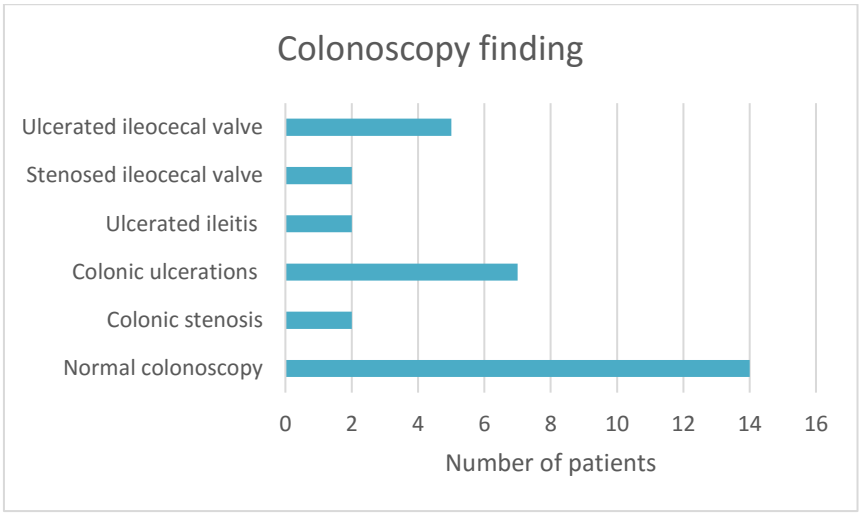
RESULTS

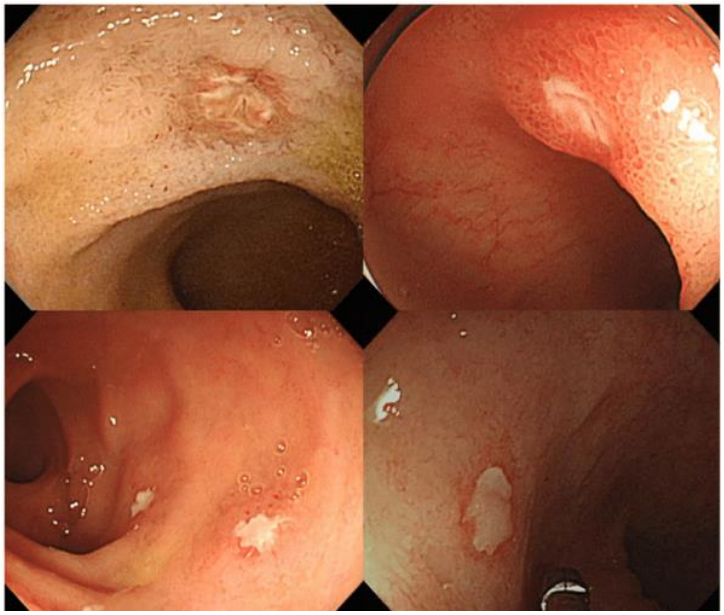
During the study period, 32 cases of polyfistulous perineum were recorded. The average age of the patients was 46.8 years (range: 18–74), with a male-to-female sex ratio of 1.18. A history of smoking was found in 16.66% of patients, and pulmonary tuberculosis in 8.33%. The mean duration of symptom evolution was 18 months, ranging from 1 month to 5 years. Polyfistulous perineum was associated with diarrhea in 29.2% of cases and with alternating diarrhea and constipation in 8% of cases.

Colonoscopy with catheterization of the terminal ileum was performed in 87.7% of patients. The lesions observed included an ulcerated ileocecal valve in 17.64%, stenosed valve in 5.88%, ulcerated ileitis in 5.88%, colonic ulcerations in 23.52%, and colonic stenosis in 5.88% of cases. No abnormalities were found in 41.2% of cases. The associated diagnosis was consistent with Crohn's disease in 56% of cases,

ileocolic tuberculosis in 18%, and nonspecific findings in 26%.







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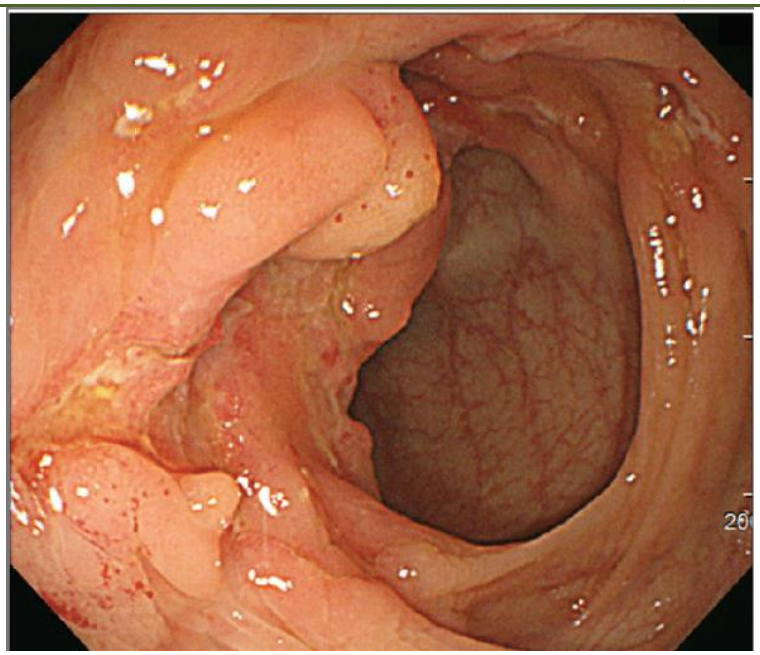
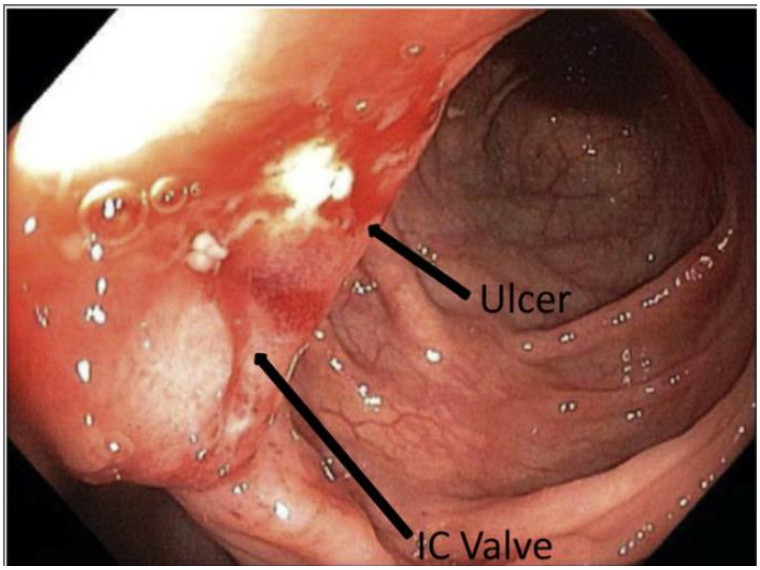


Ulcerated ileocecal valve and inflammatory polyps



Ulcerated ileocecal valve

DISCUSSION

Polyfistulous perineum is a complex clinical entity, often revealing an underlying chronic inflammatory or infectious disease. Its etiology can be diverse, ranging from inflammatory bowel diseases (IBD), such as Crohn's disease, to infectious causes, particularly intestinal tuberculosis in endemic regions.

In our series, colonoscopy revealed lesions suggestive of a specific pathology in nearly 59% of cases, underscoring its crucial role in the etiological workup. The high frequency of colonic ulcerations (23.5%), ulcerated ileitis (5.9%), and involvement of the ileocecal valve (ulceration in 17.6%, stenosis in 5.9%) strongly supports a diagnosis of Crohn's disease, identified in 56% of patients. These findings are consistent with the literature, where Crohn's disease is reported as the main cause of complex perineal fistulas, especially in initial or previously undiagnosed presentations.

Furthermore, ileocolic tuberculosis was identified in 18% of cases. This diagnosis remains challenging due to the endoscopic and histological similarities between intestinal tuberculosis and Crohn's disease. In our context, where tuberculosis prevalence remains high, diagnosis is based on a combination of clinical, endoscopic, radiologic, histologic, and sometimes therapeutic criteria (tuberculin skin test, imaging, culture, response to anti-tuberculosis treatment).

It is worth noting that in 41.2% of cases, colonoscopy was normal, highlighting its limitations in

the absence of visible mucosal involvement or in distal or transmural forms. This emphasizes the potential value of additional investigations such as pelvic MRI or enteroscanner, particularly for assessing complex fistulous tracts and ileal lesions not accessible by standard colonoscopy.

The average delay of 18 months before diagnostic workup suggests frequent diagnostic delay, likely due to the chronic and often well-tolerated nature of perineal symptoms. The association with transit disorders (diarrhea, alternating diarrhea and constipation) in one-third of patients may serve as a clinical clue to more extensive intestinal involvement.

Lastly, systematic catheterization of the terminal ileum enhanced the diagnostic yield of colonoscopy, especially in identifying ileocecal forms of Crohn's disease or tuberculosis, which are the most frequent locations in these pathologies.

CONCLUSION

Our study highlights the major value of colonoscopy with terminal ileum catheterization in the etiological workup of polyfistulous perineum. Although it does not always provide a definitive diagnosis, it guides the identification of a specific underlying pathology in more than half of cases, particularly Crohn's disease and intestinal tuberculosis. Complementary imaging studies and multidisciplinary evaluation remain necessary in complex or non-specific cases.

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