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Clinical Case Reports

Exploring the Intricacies and Clinical Perspectives of Chronic Diarrhea: A Case Report

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Abstract

Summary: Crohn's disease (CD) is a chronic inflammatory disorder that may affect any segment of the gastrointestinal tract, with a predilection for the terminal ileum and the colon. It commonly presents with chronic diarrhoea, abdominal pain, and per rectal (PR) bleeding. We report the case of a man who experienced recurrent diarrhoea and PR bleeding, initially managed as infective colitis but subsequently diagnosed with Crohn's disease following colonoscopy and histopathological confirmation. He was successfully treated with corticosteroids for induction and azathioprine for maintenance therapy. This case emphasises the need to consider Crohn's disease as a differential diagnosis in patients with chronic diarrhoea and PR bleeding, particularly in regions where infectious causes are more prevalent and may delay diagnosis.

Keywords: diarrhea, disease, bleeding.

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- Acquisition, Analysis, Interpretation
AA - Drafting
TH SA- Critical Review

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Introduction

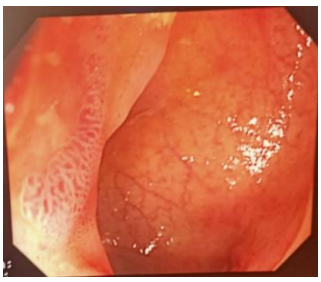
Crohn's disease (CD) is one of the two main forms of inflammatory bowel disease (IBD). It may involve any part of the gastrointestinal tract, most often the terminal ileum and proximal colon, and is characterised by transmural inflammation, skip lesions, strictures and fistulae.[1]
The global incidence of CD continues to rise, particularly in newly industrialised regions of Asia, the Middle East, and South America.[2] In Western countries, the incidence ranges from 0.1 to 16 per 100,000 person-years, but recent studies indicate a growing burden in South Asia.[3]
The pathogenesis of IBD is multifactorial, involving genetic susceptibility, mucosal immune dysregulation, environmental triggers, and gut microbiota.[4] Genome-wide association studies have identified key genes, including NOD2, ATG16L1, and IL23R, highlighting the role of innate immunity and microbial recognition.[5] Diagnosis remains challenging in infection-endemic settings, where CD may mimic intestinal tuberculosis, infectious colitis, or ulcerative colitis. Colonoscopy typically reveals longitudinal ulcers, cobblestoning, skip lesions, and strictures, supported by cross-sectional imaging and histology.[6] Most patients develop progressive disease requiring immunosuppressants or biologics, while only 20–30% follow an indolent course.[8]

Case Presentation

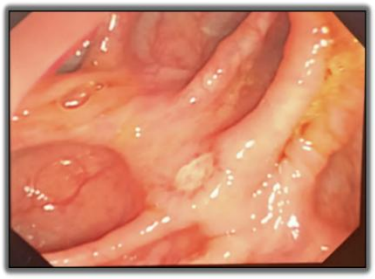
A 44-year-old gentleman from Azad Kashmir presented to the gastroenterology outpatient clinic with a 2-year history of chronic diarrhoea. The diarrhoea was of small volume, loose in consistency (Bristol stool scale type 6–7), occurring intermittently, and occasionally mixed with blood. Over the past 3 months, he also developed abdominal pain. The pain was dull, continuous throughout the day, and significantly worsened after meals, reaching an intensity of 7–8/10 on the pain scale. The diarrhoeal episodes were frequently associated with urgency, tenesmus, and abdominal bloating. He denied any history of weight loss, extraintestinal manifestations such as arthralgia, aphthous ulcers, or skin lesions. He had sought medical care at several centres in Saudi Arabia and local hospitals, where he was managed empirically with antibiotics, antispasmodics, and probiotics, but his symptoms persisted without improvement. On examination, he appeared thin and lean, with a BMI of 24 kg/m². There was mild tenderness in the right iliac fossa, but no guarding or signs of peritonism. Perianal inspection revealed a small skin tag, with no evidence of abscess or fistula.

Investigations

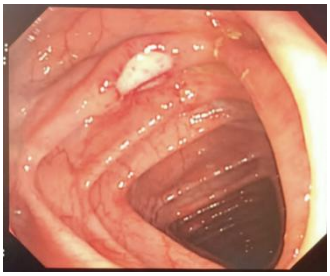
Blood tests: Hemoglobin 13.3 g/dL, MCV 74 fL, CRP 36 mg/L, ESR 52 mm/hr. The LFTs and renal function were normal. His TSH, anti-Ttg (IgA), ANA c, and p-ANCA levels were also normal, but ASCA was positive, with Fecal calprotectin 250ug/g and Vitamin B12 150pg/dL and Folic acid 2.1ng/mL.
Stool culture: It was negative for Clostridium difficile toxin.
Colonoscopy: There were multiple deep ulcers with surrounding erythema in the terminal ileum, ascending colon, and hepatic flexure with intervening normal-looking mucosa; however, the transverse, descending, sigmoid colon, and rectum were normal.



Terminal Ileum

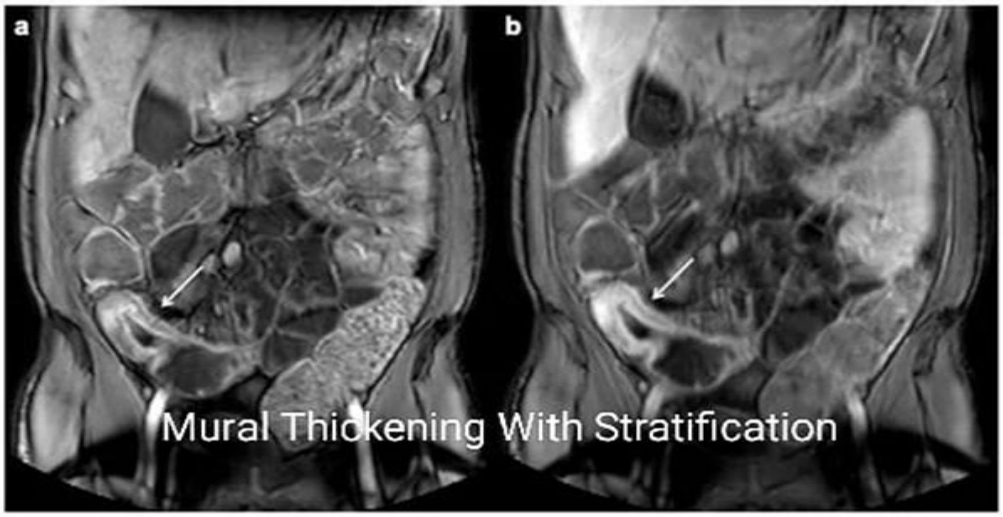


Cecum



Ascending Colon

Histopathology: There was focal chronic inflammation with mild cryptitis, crypt abscesses, ulceration, and no granulomas.
Imaging: MR enterography revealed jejunal wall segmental thickening with delayed mural enhancement, suggestive of IBD.



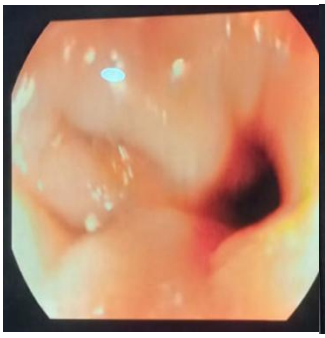
Crohn's disease (Montreal classification A2 L3 B1).

Treatment

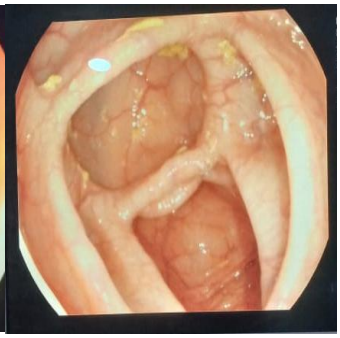
The patient was administered budesonide 9 mg once daily orally for 8 weeks, and the patient's symptoms completely resolved within two months. The patient was started on azathioprine (2 mg/kg) for maintenance therapy. Cobalamin, folic acid, and vitamin D deficiencies were also replaced.

Outcome And Follow-Up

After 8 weeks, the patient had complete resolution of diarrhoea, bleeding, and abdominal pain, normalisation of CRP (6 mg/L) and faecal calprotectin (50 µg/g), and repeat colonoscopy at 12 weeks showed mucosal healing. The patient remained in clinical remission at 12 months after azathioprine monotherapy.



Terminal Ileum



Cecum

Ascending Colon

Discussion

This case illustrates the diagnostic challenges in regions endemic to infectious diseases. The absence of granulomas on histology initially raised suspicion of an infective aetiology. However, the chronic nature of the symptoms, persistently elevated faecal calprotectin levels, positive ASCA serology, and colonoscopic evidence of skip lesions were more typical of Crohn's disease (CD). Granulomas are identified in only 15–65% of CD biopsies and are not essential for diagnosis.[5]

Endoscopic findings, such as aphthous ulcers, longitudinal fissures, skip lesions, and ileocecal involvement, are highly characteristic of CD.[6,7] Radiological features, including segmental mural thickening and delayed mural enhancement on MR enterography, provide further diagnostic support.[9,10]

The management of CD has shifted considerably over the past few decades. Corticosteroids were once the cornerstone of induction therapy; however, the introduction of biologics has transformed treatment strategies.[12] Current guidelines advocate an individualised approach: budesonide is recommended for mild-to-moderate ileocecal disease, whereas systemic corticosteroids, immunomodulators, and biologics (anti-TNF, anti-integrin, and anti-IL-12/23 agents) are reserved for more extensive or refractory cases.[11]

Therapeutic objectives now follow a treat-to-target model that moves beyond symptom relief. This includes short-term clinical remission, intermediate biomarker reduction, and long-term mucosal healing as demonstrated by colonoscopy.[13,14] Mucosal healing is associated with reduced hospitalisation, need for surgery, and colorectal cancer risk. In our patient with mild ileocolonic CD, budesonide monotherapy with dietary support achieved both clinical and endoscopic remission. Early recognition and timely therapy are vital to prevent disease progression and long-term complications.

Learning Points:

- Crohn's disease should be suspected in cases of chronic diarrhoea, even in infection-endemic regions.
- Endoscopic and radiological features are more reliable than granulomas for diagnosis.
- Budesonide is effective in mild ileocolonic disease.
- Treat-to-target strategies improve long-term outcomes.

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