SEVERE MICROCYTIC ANAEMIA DUE TO CROHN'S DISEASE : AN UNCOMMON PRESENTATION

Mohammad Syedul Islam[1] Naseeb Mohammad Irshadullah[2] Syed Md Jabed[3] Rabiul Alam Md Erfan Uddin[4]

Summary

Crohn's disease is an uncommon disease. Most common presentation is abdominal pain, diarrhea and weight loss. It may present as subacute or even acute intestinal obstruction. Crohn's disease is very rare in Bangladesh. Here we report a case of Crohn's disease where the initial presentation was severe microcytic hypochromic anaemia, who received repeated blood transfusion for one year. Initially cause was not detected. Later on he presented with subacute intestinal obstruction. After all routine diagnostic work up no definitive diagnosis could be found. So laparotomy was done in Bangabandhu Shiekh Mujib Medical University (BSMMU). Histopathology report was suggestive of Crohn's disease and he was on mesalazine with significant clinical improvement.

Key words

Crohn's disease; microcytic anaemia; melaena

Intrduction

Inflammatory bowel diseases (IBD) are chronic disease with relepting and remitting course. Two major forms of non-specific IBD are recognized: Crohn's disease (CD), which can affect any part of the GI tract, and ulcerative colitis (UC), which affects only the large bowel[1]. There is overlap between these two conditions in their clinical features, histological and radiological abnormalities; in 10% of cases of colitis a definitive diagnosis of either UC or CD is not possible[2]. The incidence of CD varies from country to country but is approximately 4–10 per 100 000 annually, with a prevalence of 27–106 per 100 000[3]. It is very rare in developing country like Bangladesh. This disease is a multisystem disease which can affect any part of the body. The most common problem in diagnosing a case of Crohn's disease is similarity with tuberculosis. It's actually a diagnostic challenge to differentiate between disseminated TB[4]. In this particular case we present an isolated Crohn's disease that was initially presented with severe anemia.

1. Research Assistant of Medicine
Bangabandhu Sheikh Mujib Medical University, Dhaka
2. Resident of Medicine
Bangabandhu Sheikh Mujib Medical University, Dhaka
3. Assistant Professor of Medicine
Bangabandhu Memorial Hospital (USTC) Chittagong
4. Post Graduate Student
Bangabandhu Sheikh Mujib Medical University, Dhaka

Correspondence : Dr Mohammad Syedul Islam

Case report

A 45-year-old married male was initially presented alteration of bowel predominately diarrhea with profound asthenia and painful recurrent oral ulceration for 2 years. For that he was evaluated and diagnosed as a case of severe anemia with intestinal Tuberculosis. He was treated with CAT-1 anti-TB drug therapy and received blood transfusion. On that time, he had no history of haematemesis, melaena, jaundice, vomiting or bladder complaints. With this treatment he has no improvement. Rather developed recurrent central abdominal pain and his pain was intermittent, moderate to severe in intensity and more marked after taking food. He also developed generalized swelling which initially appeared in both leg then gradually become generalized. He had no history of chest pain, breathlessness or jaundice He was admitted in BSMMU for further evaluation.

On admission he was severely anaemic.He has bilateral pitting pedal edema, pulse was 90/ min, BP was 100/70 mm Hg. There was no lymphadenopathy, bony tenderness or organomegaly. He had mild tender abdomen and ascites with normal per rectal examination. Other systemic examination was also normal.

Investigation revealed Hb: 7.3 gm/L, MCV 68 fL, MCH 21 pg, MCHC 289 g/L, RDW 17%. Peripheral blood film showed microcytic hypochromic anaemia.. S ferritin was 6.12 µgm/L, occult blood test was positive. S. total protein and albumin both were low. Upper GI endoscopy and Haemoglobin electrophoresis was normal. After 3 units of blood transfusion Hb level was 10.6 gm/L. LFT and S Creatinine were normal. USG of the abdomen revealed moderate ascitis. Ascitic fluid was trasudative.Urine R/M/E and chest X-ray was normal.

Barium follows through showed persistent and alternate narrowing & dilatation of ileum. The terminal ileum, caecum, & proximal ascending colon were narrow & contracted consistent with granulomatous disease (Fig 1 & 2). Colonoscopic biopsy from ilocecal region revealed granulation tissue overlying the pseudopolypic metaplasia; lining areas shows goblet cell depletion; submucosa shows smooth muscle proliferation with infiltration of chronic inflammatory cell and formation of non-caseating granuloma(Fig 3). With this finding he was diagnosed as a case of Crohn's disease. He was on mesalazine 1600mg/day and prednisolone 30 mg daily with significant clinical improvement.

Fig 1: Alternate narrowing and dilatation of Ileum (in Barium follow through)

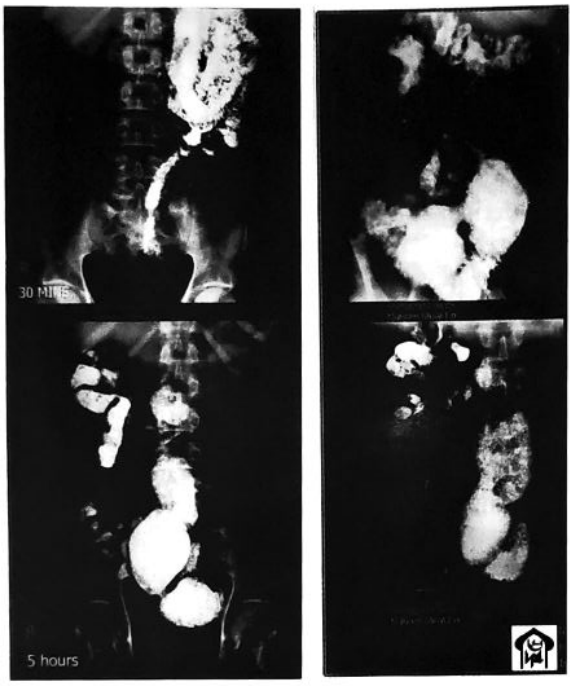

Fig 2: Narrowing of the Jejunum & Ileum (in Barium follow through)

Fig3: Histopathology of biopsy from ileo-caecal region

Discussion

Crohn's disease is a multisystem disease[5]. Most to the cases patient present with abdominal symptoms such as abdominal pain, alteration of bowel habit, haematemesis, meleana, and also extraintestinal symptoms such as joint pain redness of eye, skin lesion etc[6].

But this patient presented with unexplained iron deficiency anaemia. In most patients with CD, anemia is due to gastrointestinal blood loss and chronic inflammation[7]. But there are other causes which should be kept in the list such as autoimmune hemolytic anaemia (AHA). The difference in the incidence of AHA between ulcerative colitis and CD has been frequently noted. For diagnosis of this patient we had extensive workup. At the end we went for surgery[8-9]. The biopsy confirmed as CD. After confirmation of the diagnosis he was initially started with I/V methylprednisolone. Now the patient is quite settled with maintainance aminosalisylates.

Conclusion

Crohn's disease of the small bowel might mimic other gastrointestinal conditions, such as tuberculosis, and can be a challenging diagnosis. The clinical presentation can be confusing, and conventional test results might be misleading. This article pinpoints these difficulties and underlines the importance of a thorough diagnostic approach to small-bowel investigation in patients with complex clinical pictures, when small-bowel bleeding is suspected.

Disclosure

All the authors declared no competing interestes

References

1. Singh V, Kumar P, Kamal J, Prakash V, Vaiphei K, Singh K. Clinicocolonoscopic profile of colonic tuberculosis. Am J Gastroenterol. 1996; 91:565–568

2. Probert CSJ, Jayanti V, Wicks AC, Carr-Locke DL, Mayberry JF. Epidemiological study of abdominal tuberculosis among Indian migrants and the indigenous population of Leicester, 1972–1989. Gut. 1992; 33:1085–1088

3. Chen WS, Leu SY, Hsu H, Lin JK, Lin TC. Trend of large bowel tuberculosis and the relation with pulmonary tuberculosis. Dis Colon Rectum. 1992; 35:189–192

4. Guth A, Kim U. The reappearence of abdominal tuberculosis. Surg Gynecol Obstet. 1991; 172:432–436

5. Palmer KB, Patil DH, Basran GS, Riordan JF, Silk DB. Abdominal tuberculosis in urban Britain. A common disease. Gut. 1985; 26:1296–1305

6. Watson JM, Gill ON. HIV infection and tuberculosis: Br Med J. 1990; 300:63–65

7. Marshall JB. Tuberculosis of the gastrointestinal tract and peritoneum. Am JGastroenterol. 1993; 88:989–999

8. Snider Jr DE, Roper WL. The new tuberculosis. N Eng J Med. 1992; 326:703–705

9. McGee GS, Williams LF, Potts J, Barnwell S, Sawyers JL. Gastrointestinal tuberculosis: resurgence of an old pathogen. Am Surg. 1989; 55:16–20