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MULTIPLE, RECURRENT ILEAL PERFORATIONS- CROHNS DISEASE

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Abstract : Crohns disease is a chronic, transmural, granulomatous, non-caseating inflammation of the gastrointestinal tract characterised by alternating periods of relapse and remission. Though it can cause a myriad of GI pathologies, free perforation of the intestine is rare. We report a case of a 55 year old female patient who presented with features of subacute adhesive intestinal obstruction and went in for perforated peritonitis during her stay in the hospital. Emergency exploratory laparotomy revealed multiple, distal ileal perforations, the cause of which was later identified to be Crohns disease.

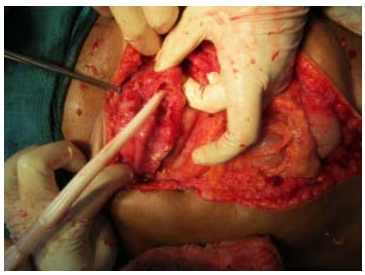
Keyword : Multiple, recurrent distal ileal perforations, Crohns disease

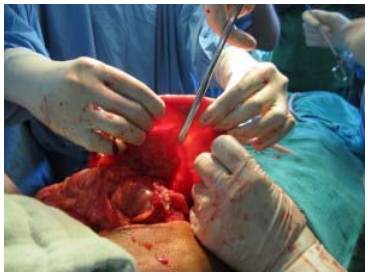
INTRODUCTION:

Crohn's disease is a chronic granulomatous inflammation of the gastro intestinal tract. Also known as regional ileitis or terminal ileitis, it can affect any part of GI tract, from the lips to the anal margins. It is characterised by relapses and remissions and increasing disease severity with time. The disease can present as inflammatory, stricturing or perforating type. Of all the types of GI presentations in Crohn's disease, free perforation of the intestine is the rarest.

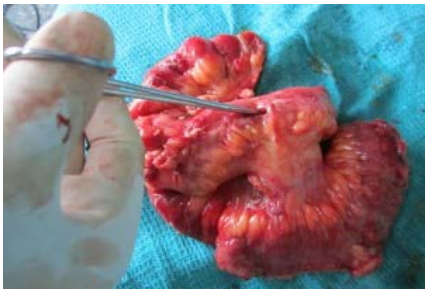
CASE REPORT:

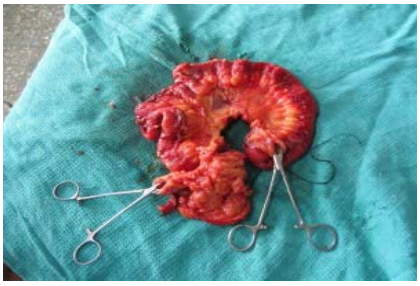
A 55 year old female patient presented with history of diffuse, colicky abdominal pain with vomiting and constipation for 2 days duration. She had severe loss of weight and loss of appetite for the past 3 years. The patient had undergone laparotomy for an ileal perforation closure about 4 years ago and was on medication for arthritis for 20 years. On examination, she was pale and poorly nourished. Abdomen examination revealed a midline, laparotomy scar, diffuse tenderness and sluggish bowel sounds. Per rectal examination showed multiple anal skin tags and there was normal fecal staining of the finger. Investigations were essentially normal except for anaemia. Ultrasound abdomen showed no abnormality and patient was managed conservatively. She improved with nasogastric aspiration, intravenous fluids and antibiotics. Four days after admission, patient complained of sudden onset, severe abdominal pain. Examination revealed tachycardia, abdominal muscle guarding and rigidity and absence of bowel sounds. An urgent erect radiograph abdomen showed air under diaphragm. Patient was prepared for emergency exploratory laparotomy. On operating, we found that the patient had multiple perforations in the distal ileum about 10-12 cm from the ileocaecal junction- largest measuring 5x3 cm. There were dense adhesions involving the distal ileum, caecum and sigmoid colon and pus pockets along the line of adhesions. The adhesions were released by blunt dissection. About 20 cm of the distal ileal segment bearing the multiple perforations was resected. The ends of the resected ileum were brought out as double barrel ileostomy in the right iliac fossa and fixed. Peritoneal lavage was given, flank drain placed, hemostasis achieved and wound closed in layers. The postoperative recovery was uneventful.





Intra operative picture showing distal ileal perforations
Resection of ileal segment being performed Resected specimen





Resected specimen
The histopathology showed stricturing and ulceration of the ileal mucosa with oedema and congestion of muscular layer and serosa. There was granulation tissue fibrosis of the serosa with inflammatory cell infiltrate and multinucleate giant cells. The histological features were suggestive of Crohn's disease of the GI tract. The patient was started on 5-amino salicylic acid and was advised follow up for further evaluation and ileostomy closure.

DISCUSSION:
Crohn's disease has a worldwide distribution but is more common in the western world with an incidence of 7/100,000 popoulation/year. Women are affected more than men and there is a bimodal age distribution- 20-40 years and 60-80 years. The aetiology is unknown, however the theories include luminal microbial antigens, genetic susceptibility, defective immune response and environmental triggers.The most common site affected is ileum(60%), colon (30%) and the rest implies proximal small bowel involvement. The presentations of the disease has been described by the Vienna classification as inflammatory type, stricturing type and perforating type. The ileal pathology of Crohn's disease begins as mucosal aphthous ulcerations, transmural inflammation and progresses to luminal narrowing, fibrostenotic lesions, cicatricial strictures and intestinal obstruction or penetrating sinus tracts, abscesses and fistulae. In Crohn's ileitis, diarrhoea precedes the attack and anorexia and weight loss are fairly common. When it affects large bowel predominantly, Crohn's disease can be acute mimicking appendicitis and may cause acute colitis and toxic megacolon. In chronic state, the disease progresses from stage of ileocolitis to sub acute intestinal obstruction and fistulisation. Free perforation of bowel has been reported in about 1-3% of patients with Crohn's disease[1].In another study published in 2003 from Tel Aviv, Israel[2], about 15.6% of patients with Crohn's disease had presented with free bowel perforation. In our institution, in the period between 2010 to 2012, this was the only case of Crohn's disease that had presented with intestinal perforation. When the relapse had started, it had flared the inflammation causing colicky pain and subacute intestinal obstruction. As it progressed, the disease had taken the course of a penetrating type resulting in bowel perforation.

The patient had a past history of laparotomy for ileal perforation about 5 years ago. The exact details of the histopathology done then was not available but it could have been due to the same etiology since Crohn's disease has a reputation to recur in the same fashion in the subsequent relapses[4,5]. 40% of the patients suffering from Crohn's disease have perineal involvement in the form of anal cryptitis, superficial ulcers, fissures, perianal fistulae and skin tags[6]. Our patient had multiple hypertrophied anal skin tags. Also to be considered are the array of extraintestinal manifestations of the illness like erythema nodosum, pyoderma gangrenosum, peripheral arthritis, ankylosing spondylitis, sacroiliitis, conjunctivitis, episcleritis, uveitis, hepatic steatosis, cholangitis, cholelithiasis, anaemia, vasculitis, endocarditis, nephrolithiasis, osteoporosis, thromboembolic diseases, amyloidosis, pancreatitis,etc. Of these, our patient had anaemia and peripheral arthritis.
The investigations that we could have done for this patient, had the acute twist of events not occurred, include a barium follow through and a colonoscopy. Barium follow through may show straightening of valvulae conniventes, string sign of Kantor and "rose thorn appearance" of bowel wall. Colonoscopy demonstrates apthous ulcers, fissures, fistulae and strictures. Other useful investigations are contrast enhanced computed tomography of abdomen and MRI for perineal disease. Capsule endoscopy is the recent modality of investigation used to pick up early, subtle lesions before stricturing phase. Treatment is essentially nutritional support and medical therapy with steroids, 5-amino salicylic acid, immunomodulators (azathioprine, 6-mercaptopurine) and newer drugs like infliximab and natalizumab. Surgery is indicated only when there is failure of medical treatment, suspicion of cancer(5-10%)[9] or in emergencies like intestinal obstruction, abscesses or bowel perforation. A high index of suspicion is required since steroid intake and immunosuppression may blunt the physical findings in these patients. The usual surgeries performed are[3]:

Strictureplasty

Resection with primary anastomosis or exteriorisation of proximal end in wide spread involvement

Resection and exteriorisation of bowel in case of free bowel perforation

Drainage of abscesses and fistulous tract excision, if present

In this patient, we resected the segment of ileum bearing the multiple perforations and brought the resected ends out as ileostomy. Patient has been started on medical treatment for Crohn's disease and is under follow up.

CONCLUSION:
Though Crohn's disease is a chronic, debilitating illness, management of relapses and prolongation of remissions is possible with good medical treatment. Surgery ,when required, is done to rehabilitate disabled individuals despite high recurrence rates[7]. The disease severity increases with relapses but it usually remembers the previous presentation, thereby giving a clue for the clinician to decide on the course of action.

REFERENCES:

1 Tomaszczyk M, Zwemer DA, Surgical associates of west Michigan, USA: Int Surg. 2005 Jul-Aug;90(3 Suppl):S45-7

2 Werbin N, Haddad R, Greenberg R, Karin E, Skornick Y, Dept. of surgery, Tel Aviv Sourasky medical centre, Tel Aviv, Israel: Isr Med Assoc J. 2003 Mar;5(3):175-7

3 Voeller G, Britt L, Dept. of surgery, University of Tennesse, Memphis: Am Surg. 1990 Feb;56(2):100-3

4 Allan R N,Keigliley M R B, Alexander J, Hawkins E (1990), Inflammatory bowel disease, Churchill Livingstone, Edinburgh

5 Sands BE: Crohn's disease, in Feldman M, Tschumy WO, Friedman LS (eds): *Sleisenger and Fordtran's Gastrointestinal and Liver Disease, 7th ed. Philadelphia: WB Saunders, 2002, p. 2005.*

6 Weston LA, Roberts PL, SchoetzJr DJ, et al: Ileocolic resection for acute presentation of Crohn's disease of the ileum. *Dis Colon Rectum 1996; 39:841-846*

7 Crohn BB, Ginsberg L, Oppenheimer GD. Regional ileitis: a pathological and clinical entity. *JAMA 1932;99:1323â€“1329*

8 Lockhart-Mummery H, Morson B. Crohn's disease (regional enteritis) of the large intestine and its distinction from ulcerative colitis. *Gut 1960;1:87â€“105*

9 Lichtenstein GR, Hanauer SB, Kane SV et al. Crohn's is not a 6-week disease: lifelong management of mild to moderate Crohn's disease. *Inflamm Bowel Dis 2004;10(Suppl 2):S2â€“S10*

10 Post S, Herfarth C, Bohm E et al. The impact of disease pattern, surgical management, and individual surgeons on the risk for relaparotomy for recurrent Crohn's disease. *Ann Surg 1996;223:253â€“260*