ORIGINAL RESEARCH PAPER

General Surgery

KEY WORDS: crohn's disease, small bowel obstruction, inflammatory bowel disease, stricture, perforation

ACUTE SMALL BOWEL OBSTRUCTION IN CROHN'S DISEASE.

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ABSTRACT

INTRODUCTION: Inflammatory bowel disease is a condition in which the cause is not known, while conditions such as ischemic and infective pathologies are ruled out. Crohn's is the only known inflammatory bowel disease affecting the small intestine. It is a chronic full thickness inflammatory process which can affect any part of gastrointestinal tract from lips to anal verge with a bimodal age distribution between 20-40 years and second peak around 70years with slight female preponderance. Wide range of clinical presentation mostly chronic abdominal pain with recurrent diarrhoea requiring medical therapy but can also present acutely as acute ileitis, perforation or obstruction in which surgery is indicated.

CASE REPORT: A 23 years old female presented with abdominal pain for one week, constipation for 5 days with tachycardia and diffuse abdominal tenderness, CECT showed dilated jejunal and ileal loops with transition point in distal ileum suggestive of small bowel obstruction. Proceeded with emergency laparotomy and dense interloop adhesions with multiple perforation and strictures noted in mid ileum with enlarged mesenteric lymph nodes, resection of involved mid ileum with double barrel ileostomy done and histopathology showed acute on chronic inflammatory bowel disease with lymphoplasmocytic infiltration in lamina propria with submucosal fibrosis and blunting and loss of villi with altered crypt villous ratio with cryptitis and crypt abscess in ileal mucosa.

CONCLUSION : Crohn's disease has a wide range of clinical presentation with unknown aetiology . Most cases require only medical treatment and medical therapy should be considered as an alternate to surgery in the era of monoclonal antibody, Though surgery is not curative for crohns and recurrance can occur, it should not be delayed in case of absolute indications and maximum attempt to preserve more healthy bowel must be taken.

INTRODUCTION :

Crohn's Disease is an inflammatory disorder and may affect any part of GI tract.The signs and symptoms overlap with many other abdominal disorders like tuberculosis, ulcerative colitis, irritable bowel syndrome etc. It may even involve systems other than GIT.Although it is difficult to make an accurate diagnosis of this disease, many diagnostic methods are available to suggest its presence. Most of the patients are treated conservatively yet a few may require surgical intervention especially presenting with complications like intestinal obstruction, perforations, abscess and fistula formations.

CASE REPORT :

A 23 years old female came with the complaints of abdominal pain for one week, which was diffuse, pricking, not associated with food intake and no specific aggravating or relieving factors, with constipation for 5 days, no history of abdominal distention, vomiting, melena. No history of yelllowish discoloration of urine, clay coloured stools, cough, breathlessness. No history of bleeding or discharge per vagina. History of loss of weight and appetite present. No known comorbid illness. no drug addiction. No history of any previous surgery.

On examination, patient moderately built and nourished ,conscious, oriented, afebrile, hydration adequate with pallor present. Vitals BP – 100/70mmHg, **pulse – 110/min**.CVS and RS examination found normal. Per abdomen, on inspection abdomen mild distention present, umbilicus midline, all quadrants moves equally with respiration, no visible mass or peristalsis. On palpation, **Diffuse tenderness present with Guarding all over the abdomen**, no rigidity. No mass palpable. No organomegaly. Per rectal and per vaginal. Examination was normal. Complete hemogram shows total count of 14,000, Hb – 8gms, coagulation profile, liver and renal Function tests and serum electrolytes are within normal limits.Xray abdomen erect shows multiple air fluid levels. CECT abdomen showed dilated jejunal and ileal loops with transition point at distal ileum with free fluid in pelvis suggestive of **small bowel obstruction.**

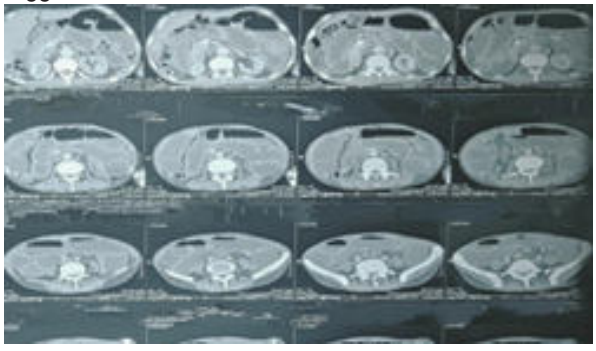
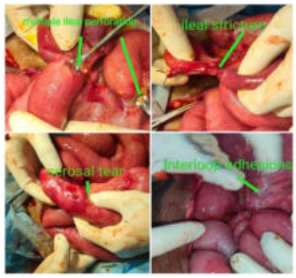


Figure 1 CECT showing **dilated jejunal and ileal loops with transition point in ileum**

Intraoperatively, turbid ascitic fluid of about 200ml aspirated and **multiple interloop adhesions with bowel edema** of ileum noted. **Multiple perforations** noted in mid and distal ileum, **multiple strictures** noted in ileum with distal stricture being at 25cms from Ileocaecal junction. Distal bowel following Ileocaecal Junction. found collapsed.Proceeded with **resection of involved long segment of ileum and double barrel Ileostomy done**



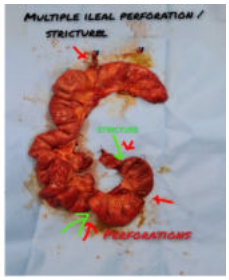


Figure 2 and 3 : intraoperative pictures showing perforation and stricture ;resected specimen respectively.

Histopathology report shows **transmural inflammation with subepithelial lymphoid aggregates, adjacent normal mucosa ,** lymphoplasmocytic infiltration in lamina propria with submucosal fibrosis and blunting and loss of villi with altered crypt villous ratio with cryptitis and crypt abscess in ileal mucosa suggestive of **acute on chronic bowel disease likely crohn's disease.**

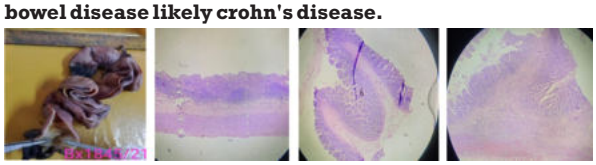


Figure 4 and 5 shows gross resected specimen Figure 6 ,7 and 8shows histology slide of resected ileum showing **acute on chronic inflammation** with **Transmural Inflammation With Subepithelial Lymphoid Aggregates, Adjacent Normal Mucosa,** blunting, loss of villi , altered crypt villous ratio with cryptitis.

Post operative period was uneventful, suptum AFB, cbnaat and ascitic fluid cbnaat found negative, and **ASCA found positive.**

DISCUSSION :

Crohn's disease causes inflammation of the digestive tract. It can affect any area of the GI tract, from mouth to anus, however it most commonly affects the ileum . In Crohn's, all layers of the intestine may be involved, and normal healthy bowel can be found between sections of diseased bowel. It affects men and women equally in all age groups with predilection in second and third decades with familial preponderance in a few

It usually presents with abdominal pain especially due to involvement of ileum, blood stained diarrhoea and anaemia. Some may have low-grade fever, nausea, and vomiting. Fissures or cracks may be evident, and fistulas and abscesses may form in anal involvement . It may also present with extraintestinal manifestations like skin or mouth lesions, pain in the joints, eye irritation, kidney stones, gallstones, and other diseases of the hepatobiliary system . Affected children may have delayed milestones. Severe cases of CD may have most common complication like intestinal blockage with thickening and fibrosis of the affected segment

Inspite of the vast diagnostic modalities like ultrasound, barium x-rays, CT scan, inflammatory markers like ESR, CRP, ASCA and colonoscopy, a clear diagnosis of CD remains obscure and no single "gold standard" indicator of this disease has been established

Most patients of CD are usually managed by conservative treatments which include adequate rest, nutritious diet, multivitamins, iron, folic acid, antioxidants, sulfasalazine. Though surgery is required to relieve obstruction, to repair a perforation, to treat an abscess, or to close a fistula yet a judicious approach to the patient is of utmost importance when to intervene or to continue with conservative management to avoid life threatening complications.

The outcome of CD has improved with good medical care. It is serious, but not a terminal illness. Mortality in these patients are due to risks of surgery or associated diseases. These patients require annual follow- up even if they are well and any new symptom should be given due consideration.

CONCLUSION :

Hereby we presented a case of small bowel obstruction in crohn's disease. With wide range of clinical presentation and difficulty in diagnosis, crohn's disease to be kept in mind In acute abdomen in second and third decades mainly, with a long history of intestinal pathology. And Though surgery is not curative for crohn's and recurrence can occur, it should not be delayed in case of absolute indications and maximum attempt to preserve more healthy bowel must be taken.

Conflict of interests – The authors declare that they have no conflict of interest regarding the publication of this paper

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