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A RARE CASE OF RECTOSIGMOID GASTRO -INTESTINAL-STROMAL-TUMOUR PRESENTING AS OBSTRUCTION AND PER RECTAL BLEED

General Surgery

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ABSTRACT

Gastro Intestinal Tumour is commonly found in the stomach and small intestine, its occurrence in the large bowel is a rare entity, arising from the nerve cell that supplies the bowel, also these are reported to be slow growing, here we present a case that has shown occurrence within 1 month and the tumour resected is C-KIT 117 Negative.

KEYWORDS

GIST, RECTOSIGMOID, OBSTRUCTION, RECTAL BLEED, KIT MUTATION.

CASE REPORT.

We report a case of a middle-aged female of 45 years old with no particular medical or family history, is a homemaker by profession, who presented with complaints of per rectal bleeding and incomplete evacuation of bowel since, 1 month, with gradually progressing pain in the abdomen associated with Anorexia and Generalised Weakness. The patient has no history of smoking or alcohol consumption.

On physical examination, the patient was conscious and well oriented to time, place, and person with an average built but poorly nourished and cachexic. Pulse 100 bpm, BP was 100/70 mmHg, Pallor was evident on the tongue, nail beds, and palpebral conjunctiva. On Per rectal exam, we observed a mass present at 6 cm from the anal verge and on proctoscopy, it was suggestive of frank bleeding and mass present in the Anal canal. USG suggested collection in the pelvis, with the sigmoid colon showing prolapsing gangrenous mucosal folds causing a stricture. A CECT was advised to r/o? polyp or ? intussusception. Computerised Tomography (CT) scan (Figure 1) suggested a mass of 96 x 70 x 62 mm, with a pedicle arising from the Rectosigmoid junction. The bowel had undergone Volvulus with congestion of blood vessels on contrast studies and wall necrosis being underway.

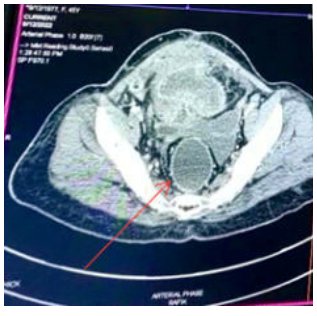


Figure 1: Computerised Tomography (CT) scan

The patient's laboratory and blood work were done after admission (Table 1). After explaining the nature of the disease and discussion it with the patient and her relatives, A multi-disciplinary meeting decided to perform an exploratory laparotomy.

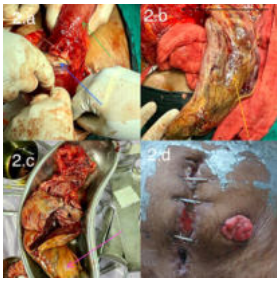
Table 1 Results of Biological analyses

Blood analyses	Results/unit
Haemoglobin	7.8 gm/dl
Total Leukocyte Count	9,000 cells/cmm
Platelets	490,000 cells/cmm
Prothrombin Time	14 seconds
International Normalised Ratio	1.01
Blood Sugar Level	116 mg/dl
Blood Urea Level	20 mg/dl
Creatinine	0.3 mg/dl
Total Bilirubin	0.9 mg/dl
Direct Bilirubin	0.3 mg/dl
Indirect Bilirubin	0.6 mg/dl
Aspartate transferase	32 u/l
Alanine transferase	41 u/l
Alkaline Phosphatase	110 u/l
Total Protein	6.2 g/dl
Albumin	4.0 g/dl
Globulin	2.2 g/dl
Serum Sodium	147 meq/l
Serum Potassium	3.7 meq/l
Serum Calcium	5.2 meq/l
HIV	Negative
Hepatitis B Australia Antigen	Negative

HIV- Human Immune Deficiency Virus

The patient was decided upon to be first managed surgically to resolve the symptoms of obstructions, Patient was prepared, shifted to OR, cleaning, painting and draping was done, Under general anaesthesia, a midline laparotomy incision was taken, and the bowel was exposed, the bowel was examined for any strictures or adhesions from ileocaecal junction distally to duodenum 4th segment proximally, any adhesion bands visualised were removed, the rectum and the anal canal were examined, and rectosigmoid was visualised, volvulus of the rectosigmoid was derotated, mass was present inside the rectosigmoid, wall of the affected segment was congested and dusky with impending necrosis. It was decided to resect the affected bowel segment along with the mass, the bowel was clamped on both ends, and the affected segment was opened, to expose the tumour mass, the segment along with the mass was removed, a double barrel colostomy was performed. A proper bowel was given, and abdominal drains were placed in subhepatic and pelvic regions. The abdomen was closed and a sterile dressing was done(Figure 2). The resected segment and mass were sent for histopathological examination.

Figure 2: a) GIST in situ recto sigmoid b) Opened recto sigmoid with GIST tumour c) Tumour removed d) Sigmoid double barrel colostomy



The Tumour mass was labelled and sent for histopathological examination, the HPR reports suggested that the mass was composed of spindle-shaped cells having uniform vesicular nuclei with inconspicuous nucleoli and a moderate amount of eosinophilic cytoplasm arranged in intersecting fascicles, with 4-8 mitotic figures/50 hpf. Extensive areas of haemorrhage. Aggregates of foamy histiocytes are noted. It was diagnosed to be a gastro intestinal stromal tumour of WHO grade 3b of the recto sigmoid junction.

The tumour cells were also sent for immunohistochemistry examination for further chemotherapy and radiotherapy consultation.

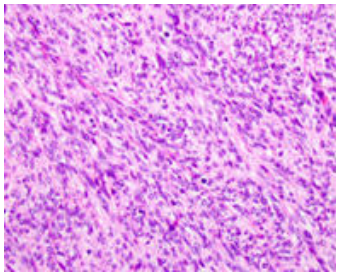


Figure 3: Histopathological view of GIST

DISCUSSION

We reported the case of a 45-year-old female patient with GIST, treated by completely removing the tumour mass and the patient tolerated the Sigmoid double barrel Colostomy well, the complaints of pain and bleeding were completely resolved with an increase in appetite as well. Histopathology report confirmed the mass being GIST, on further studies of immunohistochemistry it was found to be C-KIT 117 negative.1 The operative time required here was 90 minutes, with 1 packed cell of blood required during the procedure. The patient had a post-operative stay of 2 days in Intensive care where the bowel sounds returned to normal within 12 hours of the procedure, and stools were passed from the colostomy site within 24 hours proving it to be functional. The patient was allowed oral feeds after 36 hours of the procedure. Shifting to normal wards was done on 3rd post-operative day and patient was mobilised on 4th-day post operatively and trained for colostomy care. Patient was discharged on 7 days of total post-operative hospital stay and a functional colostomy. Gastro-Intestinal Stromal Tumours (GISTs) are one of the most common mesenchymal tumours of the Gastro-Intestinal (GI) tract, they are only 1% of all GI tract tumours.2,3 The incidence of this tumour ranges from 0.43 to 1.6 per 100000. 4The anatomical location of GISTs are as follows, in the stomach (60%), in the small bowel (30%) and very rarely found in the colon(1%) and rectum(6%).5 We aim to report a surgically challenging GISTs case and shed more light on this rare disease. GIST is a rare and aggressive condition. Localised forms have a good prognosis, whereas metastatic form shows inferior results. Only an accurate diagnosis and early treatment in the form of surgery and chemotherapy or radiotherapy will offer higher chances of survival. Despite being challenging, the Sigmoid double barrel Colostomy was the best choice of treatment in this particular case. Despite being challenging, the Sigmoid double barrel Colostomy was the best choice of treatment in this particular case.

Conclusion

To conclude, herein we reported this case as a rare presentation of GIST causing recto sigmoid obstruction due to exophytic growth can be successfully removed with clear margin and colostomy can be done for further re-anastomosis at a peripheral health center with good outcome.

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Declarations

Ethics approval and consent to participate

The authors declare no conflicts of interest and that this work was done with all due respect to the code of ethics under the supervision of the medical and ethics committee of the Government Medical College and Hospital, Miraj.

Competing interests

The authors declare that they have no competing interests.

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