

# Primary Malignant Jejuno-colic Fistula: A Rare Presentation

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## Abstract

Primary malignant fistulas of the gastro-intestinal tract are very rare. Usually they are secondary to diverticular disease, crohn's gastric ulcer, lymphoma, post surgery etc. Here we have reported a very rare case of primary malignant fistula with primary located at recto-sigmoid junction, leading to a fistulous tract between the jejunum and sigmoid colon. We have briefed on the course of the disease, investigations done and management of the same.

**Key words:** Primary malignant, Fistula, Jejuno-colic, Rare, Management

## INTRODUCTION

Malignant fistula of the gastrointestinal tract was first described by Haldane, in 1862.<sup>[1]</sup> Gastrointestinal fistula usually occurs due to many reasons. Diverticular disease has been the major cause.<sup>[2]</sup> Others include Crohn's disease, gastric ulcer, lymphoma,<sup>[3]</sup> and carcinoid tumor.<sup>[4]</sup> Carcinoma is a rare cause of gastrointestinal fistula. (0.3–0.4%).<sup>[5,6]</sup> Fistula formation in malignancy can be explained in two ways.

- Contiguous growth to the other organ from the primary source.
- Primary tumor causing deep ulceration with or without peritoneal reaction or an organization of exudates which leads to adherence to adjacent structures. This perforates into the lumen of the other organs forming a fistulous tract.

## Patient Details

A 55-year-old male patient presented with complaints of loose stools for 1 week, 10–12 episodes per day, watery, non-foul smelling, not bloody associated with vomiting non-bilious, not blood tinged, and containing ingested food. He also had a history of increased frequency of

the micturition, not associated with dysuria, incomplete voiding, poor stream, or dribbling of urine. He has lost around 10 kgs in the past 1 month and complains of decreased appetite, no comorbidities, no history of any surgery in the past, insignificant family history.

On examination, he was pale. Per abdomen examination revealed a non-tender, hard 15 × 10 cms, irregular, fixed mass in the suprapubic region.

Blood investigations showed hemoglobin of 10 g. CEA level of 4. Contrast-enhanced computed tomography (CT) abdomen and pelvis showed a mass involving the distal jejunum and sigmoid colon with fistulization between the two structures [Figure 1 (a and b)]. Colonoscopy was done which showed a growth at rectum 10 cms from anal verge from which biopsy taken - which was suggestive of malignant lesion [Figure 1a]. Positron emission tomography-CT (PET-CT) showed hypermetabolic density at jejunal loop and sigmoid with surrounding lymph nodes, mesenteric lymph nodes, and external iliac lymph nodes involvement.

## Management

- The patient was taken up for laparotomy, adhesion between the distal jejunum and sigmoid was noted with fistula formation between the two [Figure 2 (a and b)]. Fistula forming segments were resected and anastomosis was done. Anterior resection was done as rectum was involved. Retroperitoneal lymph node clearance and left pelvic lymph node dissection were carried

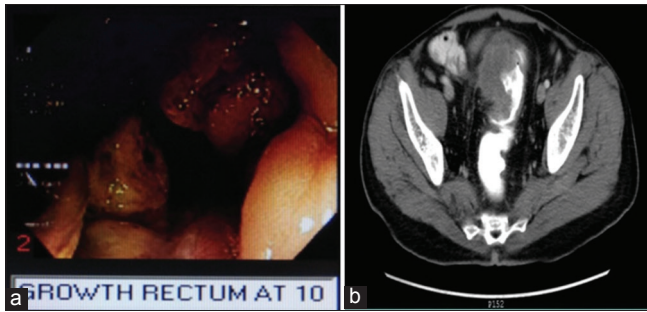
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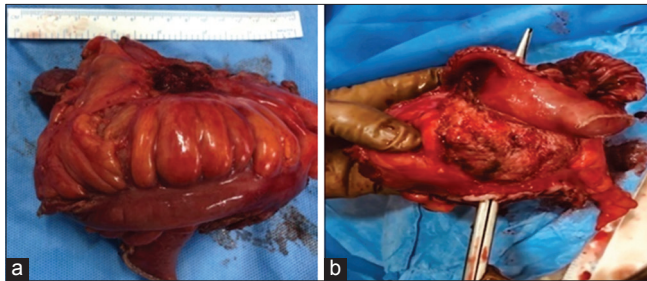
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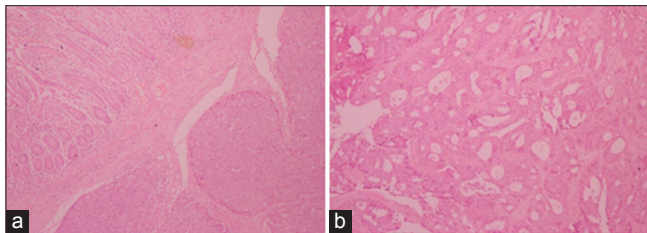
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**Figure 1: (a-b) Colonoscopic picture and fistulous tract on contrast-enhanced computed tomography**



**Figure 2: (a-b) Resected specimen showing fistulous tract between the sigmoid and the jejunum**



**Figure 3: (a-b) Histopathology showing poorly differentiated adenocarcinoma of sigmoid invading the jejuna wall**

out. Histopathology showed poorly differentiated adenocarcinoma of sigmoid invading the jejunal wall [Figure 3 (a and b)].

- Post-operative staging was pT<sub>4b</sub>N<sub>1c</sub>M<sub>0</sub>. The patient was started on 6 cycles of FOLFOX 6 followed by radiotherapy again followed by 6 cycles of FOLFOX 6.

## DISCUSSION

The exact incidence of internal fistula in large bowel carcinoma is approximately 0.3–0.4%. Malignant

enteroenteric fistulas are usually from ileum or jejunum to colon and primary is frequently in sigmoid colon. However, in malignancy obstruction and perforation are more common than fistulization. Bacterial overgrowth, mechanical bypass, and choleric effects of conjugated bile acids entering colon, all contribute to diarrhea. Poor intake, impaired absorption due to informed bypass, and catabolic sepsis lead to weight loss. Symptomatic patients will require surgery. Short life expectancy and high operative risk will preclude operative treatment for malignant fistula. Few advocate prompt attention to malignant fistula even if palliative, as underlying obstructive carcinoma must be resected. In the absence of nodal metastasis, radical local surgical clearance may be associated with reasonable prognosis. Colorectal cancer forming a fistula is characteristic in that it scarcely occurs in patients having liver metastasis, peritoneal dissemination, or lymph node metastasis.<sup>[5-7]</sup> Therefore, it is thought that a curative operation is possible by performing extended tumor resection with fistula-forming organs and that a good prognosis is expected.

## CONCLUSION

Primary malignant gastrointestinal fistulas are very rare; hence, they need a thorough pre-operative workup and staging. Resection if properly planned can give a very good prognosis to the patient.

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