



A RARE CAUSE OF SMALL BOWEL OBSTRUCTION: ADENOCARCINOMA OF JEJUNUM- CASE REPORT WITH REVIEW OF LITERATURE

General Surgery

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ABSTRACT

Small bowel tumours occur rarely with an average annual incidence rate of 9.9 per million people. Jejunal adenocarcinoma (JA) is both a rare type of gastrointestinal malignancy and an uncommon cause of small bowel obstruction (SBO). It typically presents with vague symptoms, such as abdominal pain, nausea, vomiting, and, in some cases, weight loss. A case of a 54 years male patient who presented with acute onset abdominal pain. Imaging revealed the presence of an SBO the presence of a suspicious small bowel stricture.

KEYWORDS

Jejunal Adenocarcinoma, Intestinal Stricture, Resection & Anastomosis.

INTRODUCTION

Small bowel adenocarcinomas (SBA) are rare malignant tumours that account for less than 2% of gastrointestinal tumours^[1]. The estimated annual incidence is 0.3–2.0 cases per 100,000 persons, with a higher prevalence rate in the black population than the white and has been recently increasing^[2,3]. The rarity of these lesions, non-specific symptoms and signs, combined with the inaccessibility of the small bowel by endoscopic instruments, often lead to late diagnosis of these neoplasms^[4]. Delays of around 6-10 months from the onset of symptoms have been reported^[5]. Due to difficulty in diagnosis, treatment is delayed hence, these tumours have poor prognosis. Here we presented one of such rare case.

Case Discription

A 54 years male presented to surgery Outpatient department with complaints of pain in mid abdomen for 6 months Patient also complained of loss of appetite and weight for 4 months. Patient was apparently well 6 months back when he started experiencing pain in abdomen which was gradual in onset, dull aching, relieved by-passing flatus and stool. Patient had history of 3 episodes of intestinal obstruction, which were relieved by conservative management. With above history, patient was admitted and routine investigations were sent which were within normal limits and decision of Contrast Enhanced Computed Tomography (CECT) of whole abdomen was taken which revealed stricture in Proximal Jejunum approximately 50 cm from duodeno-jejunal junction (DJ Flexure) [FIG-1]. Based on clinical examination and radiological investigations, patient was primarily diagnosed as infective/ inflammatory stricture. Further plan for exploratory laparotomy with resection & anastomosis of stricture was made and end-to-end double layer anastomosis was done [FIG-2]. Post-operatively on day seven, patient had single episode of fever (101.2 F) and abdominal pain with discharge of feculent matter from suture site. Following which patient was taken up for re-exploration and it was found that anastomosis site was leaked. So, double barrel jejunostomy was done after giving abdominal wash with warm saline. Histopathology report of resected stricture revealed adenocarcinoma of jejunum with five mm resected margins uninvolved by tumour, moderately differentiated grade G2 with tumour infiltrating through muscularis propria into subserosa without serosa penetration [FIG-3]. Regional mesenteric lymph node was free of tumour infiltration. This showed pathological Stage: pT3N0Mx. Post-operatively patient was started on broad spectrum antibiotics, two units Packed RBC

transfusions, four units of Fresh frozen plasma transfusions and two units of total parenteral nutrition were given and was managed in surgical ICU. As patient stabilized, he was started on refeeding and relatives were taught how to refeed and to change his stoma bag. Patient was discharged in stable condition with follow up after one week. Patient was planned for Jejunostomy closure after five weeks which was uneventful. Patient is doing fairly well on six months follow up.



Figure 1: CECT-ABDOMEN Showing Proximal Jejunal Stricture (YELLOW ARROW)



Figure 2: On table Resected Stricture Gross Specimen

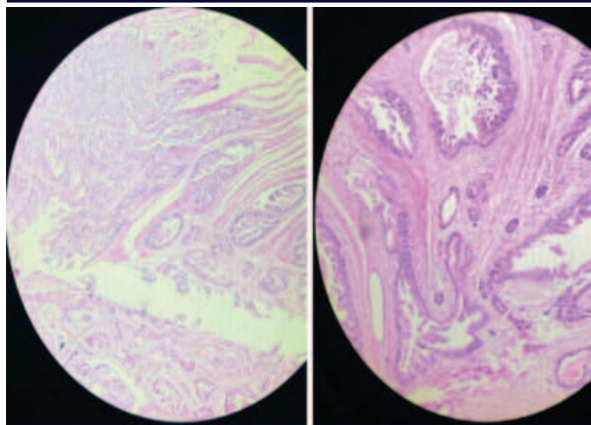


Figure 3 Grade 2 Moderately Differentiated Adenocarcinoma Jejunum

DISCUSSION

Primary adenocarcinoma of the small intestine is 40- 60 times less frequent than that of the colon. Primary adenocarcinoma of jejunum is extremely rare and frequently develops in elderly patients with slight male predominance [6].

A variety of hypotheses have been proposed to explain this phenomenon. The overall environment of the small bowel is seen as being anti-neoplastic, as potentially explained by the fast transit of food and higher IgA levels with more extensive lymphoid tissue. There is also a more rapid turnover of cells and lower bacterial count, as compared with the colon.[7][8]

Jejunal cancers develop in the region 50 to 60 cm distal to ligament of Treitz in more than 80% cases. In our case, the patient was an elderly male with 2-3 episodes of recurrent SAIO and lesion was located distal to ligament of treitz. Jejunal adenocarcinomas present with vague and nonspecific symptoms. The most common symptom is gastrointestinal (GI) bleeding, more often obscure. Apart from this, patients may present with nonspecific complaints such as abdominal pain, anaemia, nausea and vomiting, weight loss, malabsorption, diarrhoea, intestinal obstruction, and perforation [9].

For diagnosis of SBA, CT scans have an overall accuracy rate of 47 %. While CT scans can detect the lesions, they cannot provide precise data of the intestinal mucosa and miss some small or flat lesions.[10]

The PET/CT technique is being used to differentiate small intestinal malignant tumours from benign ones. The uptake of 18F-FDG is related to tumour size, infiltration and lymph node metastasis; the higher the uptake of 18F-FDG, the higher the tumour invasiveness. [11]

The understanding of this rare cancer warranted the establishment of specific guidelines, like French intergroup clinical practice guidelines (2018) and NCCN Clinical Practice Guidelines in Oncology (2019). Both agree in surgical resection as the curative treatment, depending on factors related to the tumour and the patient. For adenocarcinoma located in the jejunum, segmental resection with lymph node dissection is recommended.[12]

The primary diagnosis in our case was tubercular stricture, limited resection was done along with the lymph nodal dissection. But, on histopathologic examination diagnosis of adenocarcinoma was given with stage IIA. As the tumour was limited to the jejunum (Stage IIA), the patient was offered no further treatment and was kept on close follow up. The prognosis of small intestinal cancer is poor, possibly because cancer is advanced at the time of detection in many patients due to a delayed diagnosis.

CONCLUSION

Our case intends to highlight the fact that small bowel tumours are always a diagnostic challenge and frequently present with nonspecific clinical symptoms. With the paucity of data on this subject in the medical literature, the mainstay of diagnosis involves biopsy and histopathological analysis. In our case, the patient was planned for surgical intervention. According to National Comprehensive Cancer Network (NCCN) Guidelines version 1.2020, for local (stages I–III) SBA, like in our clinical case, primary treatment consists of surgical

resection with En-bloc removal of the regional lymph nodes. This paper is written to shed light on the clinical diagnosis of small bowel malignancy and a unique presentation leading to diagnosis. At this point, little is known about the aetiology of these small bowel malignancies. Future studies with larger sample populations and molecular diagnostic datasets could pave the way to establishing targetable tumour markers and sound treatment approaches.

Conflict Of Interest

No conflict of interest linked to this case report.

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