

Primary Jejunal adenocarcinoma — An unsuspected culprit

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Abstract

Primary Small bowel adenocarcinoma, a rare entity and having varied clinical presentation, makes its clinical detection a diagnostic challenge. Moreover, its true prevalence in sub-continent population has not yet been established, which makes it more difficult for its detection. We present the case of a 60 year old male who came with abdominal pain and weight loss for two years as the only symptoms. A series of tests in the two year period remained inconclusive. Later Computed tomography showed a suspicious mass at the terminal ileum. On exploration, there was a grossly dilated jejunal loop due to stricture one foot from ligament of Trietz and mesenteric lymphadenopathy. En-bloc resection of jejunum with suspicious of malignancy was done and primary end to end anastomosis was made. Histopathology and follow up metastatic workup showed poorly differentiated adenocarcinoma of jejunum with T3N1M0. Small bowel malignancy should also be kept in mind, when managing patients with weight loss of unknown origin.

Keywords: Small bowel adenocarcinoma (SBA), Jejunum, Stricture.

Introduction

Small bowel adenocarcinomas (SBA), a rare entity, have an incidence of 3-6 % of all gastrointestinal tumours.¹ SBA present with relatively non-specific symptoms, which along with rarity of the disease and inaccessibility by endoscope makes delay in diagnosis. Number of biochemical and radiological investigations had to be performed to reach a diagnosis. Treatment is mainly surgical. Prognosis is usually poor with a median overall survival of 19 months and 5 year survival of 14-33 %.²⁻⁵ We present the case report of a 65 year old male who came to

us with jejunal adenocarcinoma.

Case Report

A 65 year old male with no co-morbidities presented to the Outpatient Department of Surgical Unit III Shalamar Hospital Lahore in October 2016 with abdominal pain, early satiety and weight loss of 15 kg since last two years. Patient also developed episodes of vomiting after eating

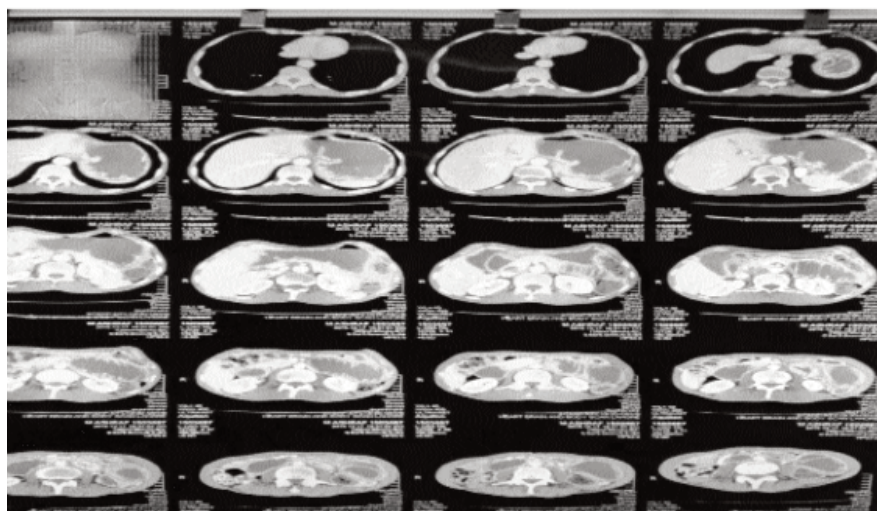


Figure-1: Pre-operative CT scan.

food for the last one month. Rest of the systematic examination of cardiovascular, respiratory and central nervous system was unremarkable. Past medical, surgical and drug history was also non-contributory. Physical examination revealed a thin lean male patient, with no palpable mass on abdominal examination.

Laboratory examination which included complete blood count, liver and renal function tests showed iron deficiency anaemia. Radiological examination, which was CT abdomen (Figure-1) with Contrast showed a picture of ill-defined terminal ileal mass with sub-acute intestinal obstruction. Upper GI endoscopy and colonoscopy and barium studies previously done were normal. A provisional diagnosis of terminal ileal mass with differential diagnosis of small bowel malignancy /abdominal tuberculosis, was made. Diagnostic laparoscopy was planned after discussion to first confirm

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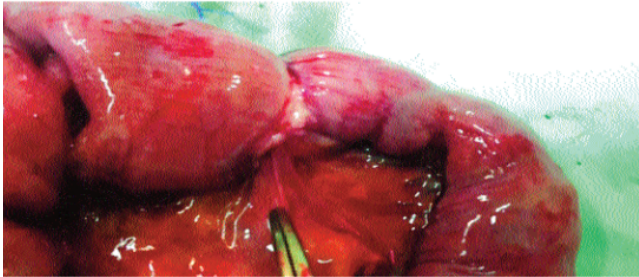


Figure-2: Stricture jejunum.



Figure-3: Stricture jejunum causing proximal dilation.

the causative pathology and proceed accordingly

Diagnostic laparoscopy showed a grossly dilated segment of proximal jejunum with stricture one foot from DJ junction and involving the mesenteric lymph nodes (Figure-2, 3). Rest of the abdomen on diagnostic laparoscopy was normal. Exploratory laparotomy was done and en-bloc resection of the diseased segment of jejunum with primary anastomosis was done along with excision of all the enlarged lymph nodes. Post-operative course remained uneventful. Histopathology showed poorly differentiated adenocarcinoma with tumour free resection margins and involving 3 out of 10 lymph nodes.

Metastatic workup was done after surgery as the biopsy confirmed the diagnosis of Small bowel adenocarcinoma, and which was negative. Patient was referred for adjuvant chemotherapy.

Patient was last seen in early February 2017 and was doing well with no signs and symptoms of recurrent disease and was completing his chemotherapy.

Discussions

Small bowel adenocarcinoma is a rare and aggressive

tumour. The median age of the patient's presentation is 55 years and there is slight male predominance. Location of small bowel adenocarcinoma is as follows: duodenum in 52%, jejunum in 25%, ileum in 13% and not clear in 10% as reported by large scale study.³

Clinical presentation is usually vague⁴ and this makes the diagnosis as challenging. Abdominal pain and weight loss are the two common symptoms. Nausea, vomiting, small bowel obstruction, melena and acute abdominal obstruction are other symptoms.⁵ Uncommon presentations include intussusception and intestinal perforation which necessitate emergency surgery.

In the past, nonspecific clinical symptoms coupled with the limited sensitivity of an upper gastrointestinal series for small bowel neoplasms led to marked delays from symptoms to diagnosis. However, recent improvements in cross-sectional imaging, refinements in enteroscopy, and the development of wireless capsule endoscopy have improved the diagnosis of small bowel adenocarcinoma

Small bowel follow through has a sensitivity for detecting small bowel tumour is 50% cases, whereas CT scan has accuracy of 47%. Recent studies have shown that CT enterocolysis using spiral and multi-detector-row CT with an enteral contrast agent has become the radiographic diagnostic tool of choice for suspected small bowel neoplasms with the sensitivity of 100%.^{2,6,7}

The French guidelines⁸ recommend performing a thoraco-abdomino-pelvic CT scan for distant metastases, and an upper and lower gastrointestinal endoscopy to look for other tumours suggesting a predisposing genetic disease. Tumour markers such as carcinoembryonic antigen (CEA) and carbohydrate antigen (CA) 19.9 should be done at baseline, as they have prognostic value especially in advanced disease.

Management of small bowel adenocarcinoma is surgical. Complete en-bloc resection (R0) of the primary tumour with loco regional lymph node resection is the procedure with favourable prognosis. When the tumour is unresectable, by-pass surgery as palliative procedure is recommended. Recurrence even after curative surgery is high(40-60%) and the relapse pattern for small bowel adenocarcinomas is predominantly systemic.⁹ In addition, adenocarcinomas patients have a poor prognosis if they are male; older than 55 years of age; black; had duodenal, ileal, or diffuse tumours (compared to jejunal tumours); T4 tumours (compared to T1 tumours); nodal or distant metastases; poorly differentiated tumours; or involved margins.¹⁰

To date, no standard adjuvant regimen has been defined

due to the lack of randomized controlled trials. Several retrospective studies have found no benefit in adjuvant chemotherapy after potentially curative surgical resections of SBA.¹¹

The Institutional approval and patient's consent was obtained for publishing the case.

Disclaimer: None to declare.

Conflict of Interest: The head of department who signed the ethical review statement is also the co-author of this case report.

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References

1. Williamson JML, Williamson RCN. Small bowel tumours: Pathology and management. *J Med Assoc Thailand*. 2014; 97:126-37.
2. Aparicio T, Zaanen A, Svrcek M, Laurent-Puig P, Carrere N, Manfredi S, et al. Small bowel adenocarcinoma: Epidemiology, risk factors, diagnosis and treatment. *Dig Liver Dis*. 2014; 46:97-104.
3. Dabaja BS, Suki D, Pro B, Bonnen M, Ajani J. Adenocarcinoma of the small bowel: Presentation, prognostic factors, and outcome of 217 patients. *Cancer*. 2004; 101:518-26.
4. Bano F. Primary Jejunal Adenocarcinoma. *J Surg Pak*. 2013; 18:103-4.
5. Khan K, Peckitt C, Sclafani F, Watkins D, Rao S, Starling N, et al. Prognostic factors and treatment outcomes in patients with Small Bowel Adenocarcinoma (SBA): The Royal Marsden Hospital (RMH) experience. *BMC Cancer*. 2015; 15:15.
6. Boudiaf M, Jaff A, Soyer P, Bouhnik Y, Hamzi L, Rymer R. Small-bowel diseases: Prospective evaluation of multi-detector row helical CT enteroclysis in 107 consecutive patients. *Radiol*. 2004; 233:338-44.
7. Schmidt S, Felley C, Meuwly J, Schnyder P, Denys A. CT enteroclysis: Technique and clinical applications. *Eur Radiol*. 2006; 16:648-60.
8. Locher, Christophe (Oct 17,2016). Adénocarcinome de l'intestine grêle .Retrieved on 20/08/2017 from TNCD - Adénocarcinome de l'intestine grêle - 17/10/2016.
9. Han S, Cheng J, Zhou H, Guo S, Jia Z, Wang P. Surgically treated primary malignant tumour of small bowel: A clinical analysis. *World J Gastro*. 2010; 16:1527-32.
10. Bilimoria KY, Bentrem DJ, Wayne JD, Ko CY, Bennett CL, Talamonti MS. Small bowel cancer in the United States: Changes in epidemiology, treatment, and survival over the last 20 years. *Ann Surg*. 2009; 249:63-71.
11. Halfdanarson TR, McWilliams RR, Donohue JH, Quevedo JF. A single-institution experience with 491 cases of small bowel adenocarcinoma. *Am J Surg*. 2010; 199:797-803.