

Primary Adenocarcinoma of Jejunum: A Case Report

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Abstract

Malignancy of small intestine is a very rare entity. Duodenum is the most common site for intestinal malignancy. The lesions present with stricture mostly. Small intestinal strictures distal to the duodenum are relatively inaccessible by endoscopy. This leads to difficulty in definitive preoperative diagnosis. The symptoms in case of jejunal malignancy are very nonspecific and a high index of suspicion is required for diagnosis.

Keywords: Adenocarcinoma, Jejunum, Small Intestine

1. Introduction

The small intestine is largest part of the GI tract but tumors of small intestine make up a small percentage of gastrointestinal neoplasms. Most common cause of subacute intestinal obstruction in India is tubercular stricture.^[1,2] Tumors like lymphoma, adenocarcinoma of small bowel, carcinoid etc make up a very small percentage of causes of small intestinal obstruction.^[3] Most of these adenocarcinomas occur in duodenum and jejunal adenocarcinoma is rare.

Small intestinal strictures distal to the duodenum, unlike gastric and colonic strictures, are relatively inaccessible by endoscopy. This difficulty in assessment has led to definitive preoperative diagnoses in very less number of patients in different reported series^[4,5]. A high index of suspicion is required due to the non-specific nature of the symptoms. We report a case of primary adenocarcinoma of jejunum where the early resection of a stricture lead to early diagnosis of malignancy and hence better outcome.

2. Case History

A 46 years old male presented with history of indigestion and hyperacidity since 4 months. Patient also had episodes

of vomiting at night with flatulence. On investigating the haemoglobin was 12.7gm%, TLC = 8700/cumm, Platelets = 3.33 lacs/cumm, MCV = 70.1%, Polymorphs = 67%, Lymphocytes = 30%, Monocytes = 1%, Eosinophils = 2%. Urea and Liver enzymes were mildly increased. Upper GI endoscopy was also done, and it showed small duodenal ulcers with dilated distal D3. Obstruction was suspected, and a CT scan was advised. His CT scan abdomen and CT enterography showed short segment stricture in the proximal jejunum with over distended bowel loops proximal to stricture (Figure 1). Sub centimetric retroperitoneal and mesenteric lymphadenopathy? Infective were observed. Rest of the organs were unremarkable on CT.

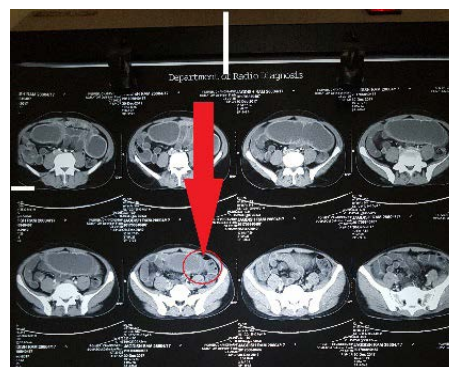


Figure 1. CT scan image showing stricture site (red arrow and circle).

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Based on above history and investigations his exploratory laparotomy was planned and peroperatively dilated small bowel loops with tiny stricture in segment of jejunum was noted, which was resected and sent for histopathology. Rest of the abdomen was unremarkable. Gross examination of small intestine showed a small stricture on external surface. On cutting the gut wall there was an ulcer at the stricture site measuring 1 x 1 cm. Microscopic examination of ulcer at stricture site revealed moderately differentiated adenocarcinoma involving the full thickness of gut wall till serosa (Figure 2&3). The overlying mucosa was ulcerated. One of the surgical margins showed presence of tumor. The adjacent mucosa appeared unremarkable.

Based on Microscopic findings and after correlation with all the investigations and preoperative findings, it was finally diagnosed as primary malignancy-Adenocarcinoma Jejunum. Patient was discharged about two weeks after surgery and his stay in hospital was unremarkable.

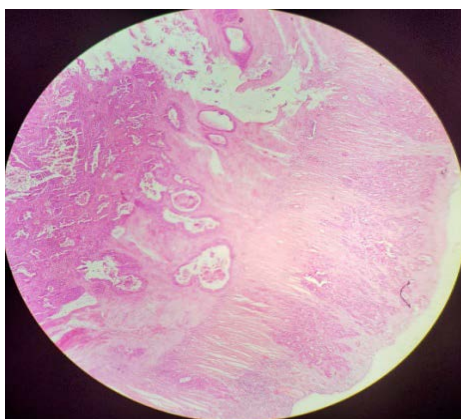


Figure 2. Microscopic examination of stricture H&E 10x

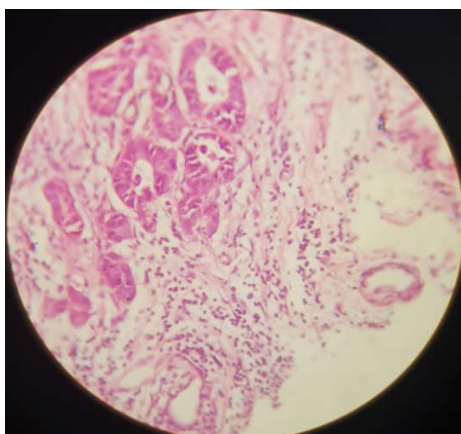


Figure 3. Microscopic examination of stricture H&E 40x

3. Discussion

Malignancy of Small intestine is relatively rare as compared to other gastrointestinal malignancies. The strongest known risk factor for small bowel adenocarcinoma is prior Crohn's disease as reported in studies.^[7] Carcinoma of colon and rectum represents most common cancers and small bowel adenocarcinoma is one fiftieth as common.^[6] This disparity can be because of extremely rapid turnover of small intestinal mucosal cells, the relative absence of bacteria in the small bowel which may be protective, the rapid transit of small bowel contents, reducing the contact time between potential carcinogens and the small bowel mucosa and alkaline environment.^[8,9]

Adenocarcinoma of the jejunum and ileum is usually asymptomatic in early stages. Diagnosis may take from months to years. The small intestinal lesions distal to the duodenum are relatively inaccessible using endoscopy as a diagnostic tool. A high index of suspicion is required due to the non-specific nature of the symptoms. Radiographs may be helpful and may show features of obstruction, but their sensitivity is low. CT scanning is a useful adjunctive test to diagnose and assess the extent of local spread or metastasis. In our case report also, there was no clinical suspicion of malignancy. They were suspecting obstruction clinically which was confirmed on radiological investigations.

As suggested by different studies surgical intervention provides the only hope of cure for patients with this disease. It has been reported that curative resection of tumor is possible in about 40-65% of cases.^[4] The tumor is unresectable only when there is widespread local disease or metastases to regional or distant lymph nodes or liver or peritoneal surface. In this case malignancy presented with obstruction of small intestine and there was no evidence of involvement of any other organ radiologically and patient's postoperative period was uneventful.

4. Conclusion

Primary adenocarcinoma of the jejunum is very rare and has non-specific presentation. A high index of suspicion is required for early diagnosis. Some improvements in endoscopic and radiological techniques should be helpful in early diagnosis and good prognosis. Obstructive symptoms in patients should be followed by aggressive diagnostic techniques and various methods and studies for standardization of reporting, diagnosis, treatment, and follow-up are needed.

5. References

1. Bhansali SK. Abdominal tuberculosis: Experiences with 300 cases. *Am J Gastroenterol.* 1977; 67:324–337. PMID:879148
2. Bhansali SK, Sethna JR. Intestinal obstruction: A clinical analysis of 348 cases. *Indian J Surg.* 1970; 32:57–70.
3. Dabaja BS, et al. Adenocarcinoma of the small bowel: presentation, prognostic factors, and outcome of 217 patients. *Cancer.* 2004; 101:518–526. <https://doi.org/10.1002/cncr.20404> PMID:15274064
4. Ouriel K, et al. Adenocarcinoma of the small intestine. *Am J Surg.* 1984; 147:66–71. [https://doi.org/10.1016/0002-9610\(84\)90036-9](https://doi.org/10.1016/0002-9610(84)90036-9)
5. Silberman H, et al. Neoplasms of the small bowel. *Ann Surg.* 1974; 180:157–61. <https://doi.org/10.1097/00000658-197408000-00005> PMID:4842978 PMCID:PMC1343631
6. Landis SH, et al. Cancer statistics. *CA Cancer J Clin.* 1999; 49:8–31. <https://doi.org/10.3322/canjclin.49.1.8> PMID:10200775
7. Ginsburg L, et al. Carcinoma of the jejunum occurring in a case of regional enteritis. *Surgery.* 1956; 39:347–51.
8. Lowenfels AB. Why are small-bowel tumors so rare? *Lancet.* 1973; 24–26. [https://doi.org/10.1016/S0140-6736\(73\)91228-2](https://doi.org/10.1016/S0140-6736(73)91228-2)
9. Herbsman H, et al. Tumors of the small intestine. *Curr Probl Surg.* 1980; 17:121–8. [https://doi.org/10.1016/S0011-3840\(80\)80018-9](https://doi.org/10.1016/S0011-3840(80)80018-9)

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