INTUSSUSCEPTION CAUSED BY JEJUNAL ADENOCARCINOMA - CASE REPORT OF A RARE CAUSE OF ACUTE INTESTINAL OBSTRUCTION

Midhun P Gopalakrishnan¹, I J Jinu², Abdul Latheef³

Abstract

Primary small bowel tumour accounts for only 3–6% of gastro intestinal neoplasms and only 1–2% of these are malignant. They present usually with nonspecific symptoms that causes delay in diagnosis. Intestinal obstruction can develop in 15% to 35% of patients with small bowel adenocarcinoma. Most common causes for such obstruction are adhesion and tumour infiltration. Intestinal obstruction due to intussusception in malignancy of jejunum is rare. Here we are reporting a case of jejunal adenocarcinoma in a 58 year old male patient who presented to us with acute intestinal obstruction. On exploratory laparotomy there was intussusception in jejunum with adenocarcinoma as the lead point.

Author Affiliations:

Department of General Surgery,

Government TD Medical College, Alappuzha, Kerala. India.

Keywords: Intussusception, Jejunum, Adenocarcinoma, Intestinal Obstruction

*Corresponding Author:

Dr. Midhun P Gopalakrishnan,

Paramjyothi Kizhakkethil House, Eyyal (P O), Kechery (VIA), Thrissur, Kerala, India PIN – 680501

Email – drmidhungopalakrishnan@gmail.com

Mob No - 9447314520
INTRODUCTION

Primary small bowel tumour accounts for only 3–6% of gastro intestinal neoplasms and only 1–2% of these are malignant (1). In contrast to benign lesions, malignant neoplasms are often symptomatic and the most common symptoms are pain and weight loss. Obstruction develops in 15% to 35% of patients with small bowel adenocarcinoma (2). Unlike benign lesions which usually presents as intussusception, obstruction in malignancy is mostly due to tumour infiltration and adhesion. But rarely obstruction can also occur due to intussusception. We are reporting a case of 58 year old male patient who presented to us with acute intestinal obstruction. On exploratory laparotomy there was an intussusception 70 centimetres distal to duodenojejunal flexure in jejunum with adenocarcinoma as the lead point.

Case Report

58 year old male with no prior history of any gastro intestinal diseases presented to us with two days history of vomiting, abdominal pain and distension with constipation. On examination abdomen was distended with increased bowel sounds. Per rectal examination was done and it showed rectal ballooning. Plain X ray abdomen showed multiple air fluid levels and dilated small bowel with prominent valvulae conniventes suggestive of dilated jejunal loops. Contrast enhanced CT scan of abdomen with pelvis was done and it showed intussusception due to a lesion in jejunum. A few enlarged mesenteric lymph nodes seen adjacent to the intussusception. No lesions were found in liver, peritoneum or visualised parts of lungs. There was no para aortic lymphadenopathy.

Patient was taken to emergency operation theatre and on exploratory laparotomy there was a jejunojejunal intussusception (Fig 1) due to a lesion of size 5*5 centimetres in jejunum, 70 centimetres away from duodenojejunal flexure (Fig 2).

Figure 1: Jejunojejunal intussusception
Figure 2: Jejunal adenocarcinoma lesion

As the lesion was irregular with infiltration to adjacent mesentery, an on table provisional diagnosis of malignancy was made and an oncological resection of the lesion done with 5 centimetre margin on both proximal and distal sides with its associated mesentery and end to end jejunoojejunal anastomosis was done to maintain continuity. Post operative period was uneventful and patient was discharged on seventh post operative day. Histopathological report was suggestive of poorly differentiated infiltrating adenocarcinoma of jejunum whose size was 5*4.8*4.2 centimetres. The growth was seen infiltrating the muscularis propria and extending in to mesenteric fat. Seven out of sixteen mesenteric lymph nodes showed neoplastic infiltration. Margins of resection were free of neoplasm. Stage T3 N2 (AJCC 7th edition). Upper gastro intestinal endoscopy and colonoscopy was done after three months of surgery to complete workup for ruling out any polyposis syndromes and were negative.

This case was discussed in institutional tumour board and as it was T3 N2 M0 disease, it was decided to give adjuvant chemotherapy with 12 cycles of FOLFOX regime. Now he has completed chemotherapy and is asymptomatic on follow up of six months.

DISCUSSION

The aetiological factors for small bowel adenocarcinoma are Crohn’s disease, increased animal fat intake (3), cigarette smoking, alcohol consumption, prior peptic ulcer disease, polyposis syndromes, prior colon cancer, celiac sprue and cystic fibrosis. Bile is also said to be an aetiological factor since prior cholecystectomy is related to increased incidence of small bowel adenocarcinoma (4).

Adenocarcinoma of the jejunum in early stage is usually asymptomatic. The usual period of presentation of this disease is during the 6th and 7th decades of life. The
presenting symptoms are weight loss, anaemia, abdominal pain, abdominal mass, vomiting, bleeding and intestinal obstruction. Obstruction develops in 15% to 35% of patients with small bowel adenocarcinoma. Most common causes for such obstruction are adhesion and tumour infiltration. But intestinal obstruction due to intussusception is rare in adenocarcinoma of jejunum. Plain radiographs may show multiple air fluid levels with proximal jejunal dilatation. CT findings of adenocarcinoma may be annular narrowing with abrupt concentric or irregular overhanging edges, a discrete tumour mass, or an ulcerative lesion \(^5\). Enteroclysis or a barium small bowel enema is more sensitive than a standard barium small bowel study. This technique provides excellent visualisation of the small bowel mucosa. Push type jejunal endoscopy may be used to visualise the jejunum to a level of 40 – 100 cm past the ligament of Treitz \(^6\). Capsule enteroscopy is another technique to visualise small bowel. It involves swallowing a small camera which relays digitised images to a computer recorder over 8 hour duration.

The treatment of jejunal adenocarcinoma is surgical resection of diseased jejunum with at least 5 centimetre clearance of proximal and distal margin with its associated mesentery. The indications for adjuvant chemotherapy are stage 3 & 4 disease and stage 2 with high risk features like perforation, obstruction, lymphovascular embolisation etc. The usual chemotherapeutic regimes used in adjuvant setting are 8 cycles of CAPEOX or 12 cycles of FOLFOX. There is no role for adjuvant radiotherapy.

**CONCLUSION**

Adenocarcinoma of jejunum is a rare disease with non specific symptoms. High index of suspicion is required in patients with Crohn’s disease, polyposis syndromes, celiac sprue and cystic fibrosis. Jejunal adenocarcinoma should also be considered as a cause for intussusceptions while dealing with such clinical scenarios especially in elderly patients.

**Conflict of interest-** None

**Acknowledgement-** None
REFERENCES


