International Surgery Journal
Gupta M et al. Int Surg J. 2016 Nov;3(4):2355-2357
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: http://dx.doi.org/10.18203/2349-2902.isj20163635

Case Report

A rare case of small bowel adenocarcinoma presenting as multiple intussusceptions: an unexpected diagnosis of intestinal obstruction

Mayank Gupta*, Atanu Kumar Pal, Ramanuj Mukherjee

Department of General Surgery, R. G. Kar Medical College and Hospital, Kolkata, West Bengal, India

Received: 26 August 2016
Accepted: 27 September 2016

***Correspondence:**
Dr. Mayank Gupta,
E-mail: mayank27390@gmail.com

ABSTRACT

The authors talk about a rare case of small bowel adenocarcinoma causing intussusception in a 45-years-old Indian man who had presented with features of intestinal obstruction. Small intestinal malignancies are rare and those presenting as multiple intussusceptions are exceptional. It is rarely diagnosed pre-operatively. It poses a great diagnostic challenge. Hence, often it presents as a surprise intra-operative diagnosis. Exploratory laparotomy represents the diagnostic and definitive therapeutic procedure.

Keywords: Exploratory laparotomy, Intussusception, Intestinal obstruction, Small bowel adenocarcinoma, Segmental resection and anastomosis

INTRODUCTION

Small bowel neoplasms, which are exceedingly rare, constitute only 5% of all gastrointestinal neoplasms and only 1-2% of all gastrointestinal malignant tumours. The incidence of small bowel neoplasia is variable as benign lesion remain asymptomatic and are revealed only at autopsy. In contrast, malignant neoplasms account for 75% of symptomatic lesions that lead to surgery.[1] Being more common in the proximal small bowel, adenocarcinomas comprise about 25% of small bowel cancers.[2] Its incidence is peak in the seventh decade of life with a slight male predominance.

In contrast to benign lesions, malignant neoplasms are often symptomatic, the most common symptoms being pain and weight loss. Obstruction develops in 15% to 35% of patients and, unlike the intussusception produced by benign lesions, is usually the result of tumor infiltration and adhesions.[1] However, rarely obstruction is also due to intussusceptions. Though plain films may confirm the presence of an obstruction they are mostly useless for diagnosing small bowel neoplasms. CT of the abdomen is helpful in detecting extraluminal tumors, and can be used to stage malignant cancers. Ultrasonography has not proved to be effective in making the preoperative diagnosis of small bowel neoplasm. Despite sophisticated imaging and diagnostic modalities, surgical exploration is the only way of making and confirming the diagnosis of small bowel adenocarcinoma.

Treatment of small bowel adenocarcinoma is determined by location and stage. Duodenal adenocarcinoma are treated with pancreaticoduodenectomy or segmental resection if the tumor is in the third or fourth part. Jejunal and ileal adenocarcinomas are treated with segmental resection with the associated mesentery or right hemicolectomy for terminal ileal carcinomas.

CASE REPORT

A 45 year old male presented with complaints of pain in the upper abdomen along with distension, vomiting and constipation since 15 days. There was no history of fever, hematemesis or melena. On enquiry, there was no history of any similar episodes in the past.

On examination, the patient was conscious, co-operative and well oriented to time, place and person. His pulse was 98/min and BP was 106/76 mmHg. There was mild pallor. Per abdominal examination revealed tenderness and guarding in the epigastrium and umbilical regions, and the upper abdomen was slightly distended. There was no rigidity however, and the peristaltic sounds were well heard. Per rectal examination was normal.

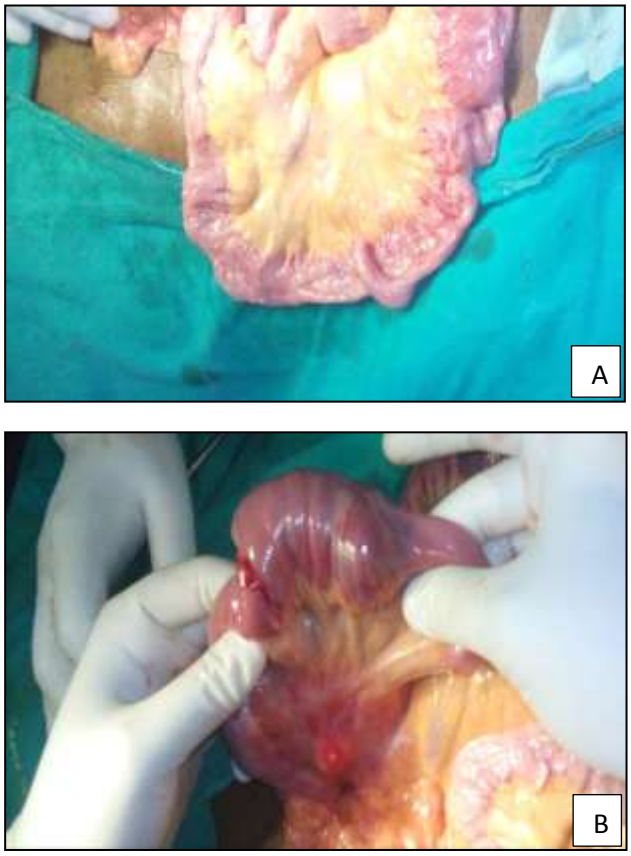

Figure 1: a, b) Intraoperative finding of the small bowel intussusceprions.

The ultrasonography just revealed hepatomegaly with fatty deposition. Upper G.I. endoscopy was done which showed severe esophagitis, multiple stomach erosions with deformed pylorus and dudodenal bulb, and huge bile pooling in stomach and D2. A CECT scan of the whole abdomen was then done which reported that the stomach and duodenum are hugely distended and descending colon contains a gut related lesion. Radiological features were consistent with those of subacute intestinal obstruction. Associated ascaris infestation was also noticed.

The patient was admitted for conservative management. He was kept NPM and administered IV fluids. A nasogastric tube (for decompression) and urethral catheter (for monitoring output) were inserted. Patient was kept under intensive monitoring. Regular abdominal examinations were done to look for worsening signs. After three days, the patient developed massive distension, increased pain and tenderness, and rigidity of the upper abdomen. He was tachycardic with a pulse of 110/min and the FBC showed neutrophilia. The decision for an urgent exploratory laparotomy was taken.

After obtaining adequate consent, under general anaesthesia, an exploratory laparotomy was carried out. Two segments of intussusceptions, one 20 cm and the other 160 cm distal to the duodenojejunal flexure, were found. Associated mesentery had enlarged palpable lymph nodes. Segmental resections were done with the associated mesentery and the cut bowel ends were anastomosed in a single layered extramucosal fashion. The two segments resected were sent for histopathological examination. The patient tolerated the surgery well, had an uneventful recovery and was discharged after ten days.

Figure 2: Resected intestinal segment with the intussusception showing the tumour.

Histopathology report said "sections show histology of a neoplastic lesion composed of atypical, large, polygonal and columnar cells having vesicular nuclei with prominent nucleoli and clear cytoplasm. The cells are arranged in diffuse pattern compartmentalised by fibrous bands. There is increased mitosis. Lymph node shows metastatic deposit. Lines of resection are free from neoplastic involvement." The diagnosis given was adenocarcinoma (pT4 pN1 Mx).

DISCUSSION

The incidence of small bowel adenocarcinoma is many times less than that of colon adenocarcinoma, in spite of the fact that approximately 75% of the alimentary tract is formed by the small bowel. Though many theories have been put forward to explain this disparity, the actual reason is still unclear. It is challenging to examine the whole length of the small intestine. Double balloon enteroscopy and wireless capsule endoscopy are amongst the newer techniques that have helped in the diagnostic work-up for small bowel pathology.[3] The delay in diagnosis of a small bowel malignancy is attributed to the vague and non-specific symptoms which are often

ignored by both clinicians and patients. Rarely, the patient presents as intestinal obstruction. An exploratory laparotomy is then warranted. Curative resection is the treatment of choice and a chance for long term survival. Lymphovascular invasion and a positive surgical margin are predictors of loco-regional recurrence and poor outcome.[4] The role of adjuvant therapy has not yet been established clearly due to the lack of randomized control trials. A role of 5-FU-based therapy has been suggested by multiple single institutional analyses. Patients with advanced disease offered palliative chemotherapy have a better median survival data. The first line chemotherapy is 5FU infusional and capecitabine combination regimen. Other agents such as irinotecan and gemcitabine have also been tried. Randomized prospective controlled trials are required to establish the use of biological agents and targeted therapy in patients with this rare tumor.[5]

ACKNOWLEDGEMENTS

Authors would like to acknowledge who so ever concerned with this case study has been done on individual basis and has not been supported by any grant from any source.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: Not required

REFERENCES

1. Mckenzie S, Evers MB. Small intestine. In: Townsend, Courtney M, and David C. Sabiston. Sabiston textbook of surgery: the biological basis of modern surgical practice. 19th ed. Philadelphia: Saunders. 2004:1227-8.
2. Zouhairi E, Majed. Small bowel adenocarcinoma. current treatment options in oncology. 2008;4:388-99.
3. Small bowel adenocarcinoma the research and biology of cancer. Available at file:/// C:/ Users/ india/ Downloads/ 1209000822. pdf. Accessed on 19 July 2016.
4. Bauer RL, Palmer ML, Bauer AM, Nava HR, Douglass HO. Adenocarcinoma of the small intestine: 21-year review of diagnosis, treatment, and prognosis. Ann Surg Oncol. 1994;1(3):183–8.
5. 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 Jan; 249(1):63-71.

Cite this article as: Gupta M, Pal AK, Mukherjee R. A rare case of small bowel adenocarcinoma presenting as multiple intussusceptions: an unexpected diagnosis of intestinal obstruction. Int Surg J 2016;3:2355-7.