



## Role of CT in Early Diagnosis of Small Bowel Lymphoma in a Patient with Presumptive Diagnosis of Adhesive Bowel Obstruction- A Case Report

Bhavana Satwick<sup>1</sup>, Gaurav Bochare<sup>2</sup>, Umakant Chate<sup>3</sup>, Dilip Gupta<sup>4</sup>

<sup>1,2</sup> Senior Resident, Department of Surgery, Mahatma Gandhi Institute of Medical sciences, Wardha.

<sup>3</sup> Junior Resident, Department of Surgery, Mahatma Gandhi Institute of medical sciences, Wardha.

<sup>4</sup> Professor and head, Department of Surgery, Mahatma Gandhi Institute of Medical sciences, Wardha.

**ABSTRACT:** Small bowel obstruction is one of the commonly encountered disease state by surgeons all over the world and postoperative adhesions remain the most common cause of small bowel obstruction till date. Other rarer causes of small bowel obstruction include small bowel malignancies like lymphomas and adenocarcinoma, foreign bodies, intussusception, volvulus, hernias etc. Even though adhesions are the commonest cause behind bowel obstruction, these patients are also equally susceptible to be diagnosed with other rarer causes of small bowel obstruction. In such situations, a CT scan can aid in early diagnosis of these rarer causes and prevent unnecessary delays in surgical management. Here we report a case where a presumptive diagnosis of adhesive obstruction was made but a CT scan early in the course of treatment helped us diagnose small bowel malignancy immediately, to terminate conservative management and proceed with immediate laparotomy.

**KEYWORDS:** Adhesions, Conservative, Laparotomy, Obstruction, Small bowel lymphoma.

### INTRODUCTION

Postoperative adhesions are the most common cause of small bowel obstruction accounting for 65-75 % of the cases.(1) Other causes like foreign bodies, tumours, intussusception, hernias account for 10-30 % cases of which small bowel malignancies account for just 0.42%. (2) As postoperative adhesions are so common often no other diagnosis is considered as a cause of small bowel obstruction and patients are usually managed conservatively. In such situations an early computed tomography (CT) scan of abdomen turns out to be a useful tool to avoid delays in surgical management.(3) Here, we report a case where an early CT scan helped us to diagnose small bowel lymphoma immediately in a patient with a prior history of abdominal surgery and a presumptive diagnosis of adhesive small bowel obstruction.

### CASE

A 45 year old female presented to surgery OPD with complaints of abdominal pain, obstipation and multiple episodes of vomiting. She gave history of having undergone laparotomy few years back details of which were not known. On examination abdomen was distended with presence of right paramedian vertical scar of previous abdominal surgery. Patient's vitals were stable, there were no signs of peritonitis and blood investigations were normal. Abdominal Xray showed features suggestive of small bowel obstruction. A diagnosis of small bowel obstruction secondary to adhesions was made and decision was taken to manage patient conservatively. A CT scan of abdomen was also done which revealed asymmetrical circumferential wall thickening of distal ileal loops likely to be neoplastic (figure 1). Hence, conservative line of treatment was terminated immediately and an urgent laparotomy was done and a 5x5 cm mass was seen in terminal ileum 60 cm proximal to ileocaecal junction causing complete luminal obstruction, however, grossly the serosal layer was intact and there was no mesenteric lymphadenopathy (figure2,3). Resection of involved segment of bowel was done with end to end bowel anastomosis. Histopathology and immunohistochemistry reports showed diffuse large B-cell lymphoma with CD45 and CD20 positivity. Postoperative course was uneventful and patient was started on postoperative chemotherapy.



**Figure 1:** Computed tomography image showing small bowel neoplastic mass.



**Figure 2:** Intraoperative image of small bowel lymphoma.



**Figure 3:** Resected specimen of small bowel lymphoma presenting as intraluminal mass



## DISCUSSION

Postoperative intraabdominal adhesions remain the most common cause of small bowel obstruction accounting for 65-75% of the cases.(1) In the absence of any signs of peritonitis, bowel ischaemia or strangulation, patients with small bowel obstruction are initially managed conservatively and operated only on failure of conservative management.(4) As postoperative adhesions are so common, in the presence of a prior history of abdominal surgery, often no other diagnosis is considered in patients presenting with small bowel obstruction. Small bowel malignancies are very rare and account for only 0.42% of which 15-20% are small bowel lymphomas.(2) Diffuse large B cell lymphoma is the commonest type and upto 35% of these may present with small bowel obstruction.(5) As in our case, it is important that even though postoperative adhesions are very common, these patients are equally susceptible to other pathologies causing small bowel obstruction. Even if a presumptive diagnosis of small bowel obstruction secondary to adhesions is made, a CT scan of abdomen early in the course of treatment will definitely help for diagnosis of other rare pathologies as well. In our case we had started with conservative management but since CT was done early in the course of treatment it helped us to diagnose small bowel lymphoma earlier and patient underwent laparotomy immediately.

## CONCLUSION

As postoperative adhesions remain as the most common cause of small bowel obstruction, it is equally important that other rarer causes are also considered in these patients. If decision for conservative management is taken in any case, a CT scan early in the course of treatment may help us diagnose these rarer causes of small bowel obstruction earlier and avoid delays in surgical intervention. Nonetheless, the risks of radiation exposure associated with CT should be gauged against its benefits in every case, and such routine use of an immediate CT scan should be considered on case basis.

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