

## Case Report

# Mesenteric lipoma: a rare cause of acute small bowel obstruction

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### ABSTRACT

Lipomas, also known as universal tumors, can be found almost anywhere in the human body. However mesenteric lipomas are rare entities, with less than 100 cases reported in clinical literature. Patients may present with chronic non-specific abdominal symptoms, or rarely acute intestinal obstruction. Multiple imaging modalities are available for pre-operative diagnosis. Surgical intervention is required for treatment of symptomatic mesenteric lipomas.

**Keywords:** Lipoma, Mesenteric, Small bowel, Obstruction

## INTRODUCTION

Lipomas are benign neoplasms of adipose tissue that can occur almost anywhere.<sup>1</sup> Mesenteric lipomas are uncommon and usually asymptomatic.<sup>2</sup> However, a few can cause symptoms consistent with a partial bowel obstruction and rarely may present with complete intestinal obstruction.

Here we present a case of a 70 years old gentleman who presented with acute intestinal obstruction due to a large mesenteric lipoma.

## CASE REPORT

A 70 years old gentleman presented with colicky pain in the central abdomen for past seven days which was associated with abdominal distention, bilious vomiting and obstipation for last three days. Except for coronary artery disease, he did not have any other medical comorbidity and did not have any surgeries previously.

On examination, he was conscious and cooperative. He had tachycardia and was dehydrated. The abdomen was distended with generalized tenderness over the abdomen and guarding in central abdomen. There was no

organomegaly or palpable lump. There was no fluid thrill or shifting dullness. Bowel sounds were exaggerated. Per rectal examination revealed an empty rectum with ballooning.

Abdominal radiographs showed multiple air fluid levels and dilated jejunal and ileal loops with no gas in the colon.

He was admitted with a provisional diagnosis of acute intestinal obstruction. Nasogastric tube was inserted which drained about 1000 ml bilious fluid. After adequate resuscitation, he was taken for exploratory laparotomy. Operative findings included grossly dilated ileal and jejunal loops, with a pedunculated tumor of size 10×7 cm, grayish white in color, with stalk attached to mesentery of terminal ileum. Appendix was adherent to distal part of stalk forming a band, entrapping a loop of terminal ileum, causing obstruction (Figure 1).

The band was divided and stalk of tumor was ligated near its mesenteric attachment and excised (Figure 2). Appendectomy was done as the tip of appendix was adhered to the stalk of the tumor. The small bowel was decompressed and abdomen was closed in layers. Post-operative recovery was uneventful and he was discharged on eighth post-operative day. He has been well in

subsequent follow-ups. The histology showed an encapsulated tumor composed of mature fat cells which was compatible with the diagnosis of mesenteric lipoma.



**Figure 1: Lipoma arising from mesentery of distal ileum with tip of appendix adhered to it, forming a band (arrow) causing bowel obstruction.**



**Figure 2: Excised lipoma.**

## DISCUSSION

Mesenteric lipomas are rare clinical entities, with less than 30 cases documented in literature till 2009 and about 50 cases till 2014.<sup>3,4</sup> They are commoner in adults aged between 40 and 60 years and rarely occur in children of less than 10 years.<sup>4</sup> The predisposing factors include obesity, diabetes mellitus, hypercholesterolemia and chromosomal translocation.<sup>3,5</sup> The clinical presentation of abdominal lipomas range from asymptomatic incidental finding, progressive abdominal swelling, or rarely as acute bowel obstruction.<sup>4</sup> These lipomas being soft and mobile masses which do not infiltrate into surrounding structures, allow passage of small bowel contents and hence, are

usually asymptomatic.<sup>6</sup> In symptomatic patients, the common symptoms are vague abdominal pain, distension, and anorexia and weight loss, usually related to the pressure effects of lipoma.<sup>4</sup> Rarely, patients present with signs and symptoms of intermittent or acute intestinal obstruction, usually due to small bowel volvulus or intussusceptions caused by the lipoma.

Multiple imaging modalities are available for diagnosis of intestinal lipomas, but their usage is often dependent on the patients' presentation. Patients with chronic symptoms can be evaluated by Ultrasonography (USG), Computed tomography (CT) or Magnetic resonance imaging (MRI). Ultrasound shows a well-defined homogenous echogenic mass, and can distinguish it from a mesenteric cyst. CT shows homogenous tumor of adipose tissue and also gives information about effect on the small bowel, evidence of ischemia and may demonstrate the typical whirl-like pattern of a volvulus.<sup>7</sup> MRI is also considered a very helpful diagnostic imaging with an advantage of differentiating lipomas from liposarcomas, thus helping avoid invasive procedure like biopsy.<sup>8</sup> Unfortunately, our patient didn't have the opportunity to have CT scan/MRI as he presented acutely.

In the differential diagnosis of mesenteric lipoma, lipoblastoma, lymphangioma, and lymphangiolipoma should be considered. They can usually be distinguished by their CT and MR images.<sup>7,8</sup> Small intestinal mesenteric lipomas mostly occur on the ileum as was also the case in our patient.<sup>3</sup> Treatment involves excision of the lipoma. The bowel is addressed as per the operative findings. If ischemic or gangrenous bowel segment is found, then resection of the affected segment is required. In absence of any such changes, only the obstruction needs to be resolved, like detorsion of a volvulus or releasing an obstructing band. Laparoscopic excision of mesenteric lipoma has also been reported.

In conclusion, mesenteric lipoma is a rare entity which should be considered in the differential diagnosis of chronic abdominal pain and distention and rarely does it present with an acute abdomen. Pre-operative cross-sectional imaging can be useful for diagnosis. Surgical intervention is the treatment of choice.

## CONCLUSION

Mesenteric lipomas are rare clinical entities. The clinical presentation of lipomas ranges from asymptomatic incidental finding, progressive abdominal swelling, or rarely as acute bowel obstruction. Multiple imaging modalities are available for diagnosis. Treatment includes surgical removal of the lipoma, and addressing the bowel as necessary.

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