CASE REPORT

# GIANT MESENTERIC LIPOMA- A RARE TUMOUR OF PAEDIATRIC AGE

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**Background:** Intraperitoneal Lipomas presenting as huge abdominal mass are uncommon in paediatric age group. We report case of an 11 months old male child, who presented with abdominal distension and constipation. Initial investigations including CT scan and Trucut biopsy of lesion failed to delineate nature of tumour. However, upon surgical excision it turned out to be a rare tumour of mesenteric origin.

**Keywords:** Mesenteric lipoma; Paediatric age

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## INTRODUCTION

Lipomas are benign tumours of adipose tissues. They can occur anywhere in body where adipose cells are present.[1] The prevalence of Mesenteric lipomas is not known but they are extremely rare in paediatric population.[2] Here we report a case of Giant mesenteric lipoma with short term follow up, highlighting various aspects of its clinical presentation and management issues encountered.

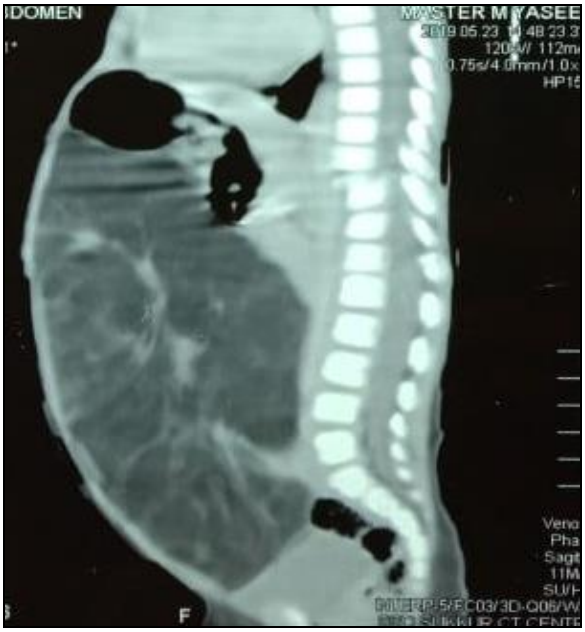
## CASE REPORT

11 months old boy weighing 8kg presented with progressively increasing abdominal distension for four months with constipation for one month. He also experienced occasional abdominal pain and non-bilious vomiting. His past medical history was unremarkable.

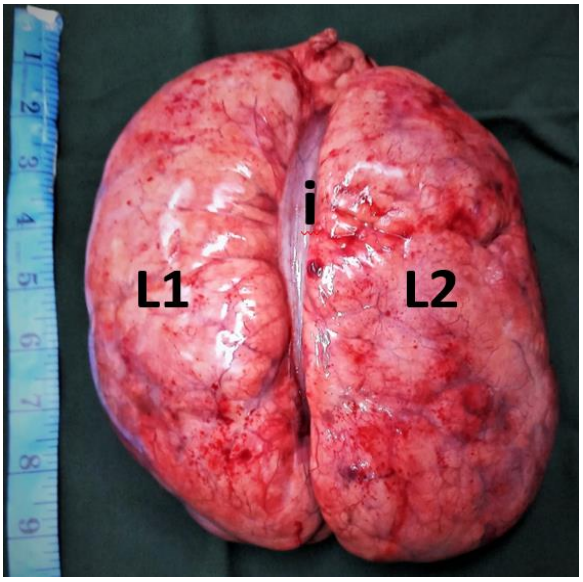
Abdominal examination showed a large firm to hard mass, palpable on right side of abdomen having ill-defined borders with nodular surface. It extended vertically from subcostal margins into pelvis and crossing midline up to left mid-clavicular line. Liver and spleen could not be separately palpable. No peripheral lymph node was palpable. Digital rectal examination was normal. Base line laboratory results were within normal range except for low haemoglobin of 8mg/dl. Ultrasound followed by CT scan of abdomen with contrast was done which showed large mass $30\times19\times12cm^3$ (craniocaudal, transverse and anterioposterior) extending from diaphragm up to pelvis. It was well-capsulated having low attenuation, thick enhancing septations with diffuse specks of calcification. Mass was also compressing aorta and mesenteric vessels and gut loops also pushed to left side (Figure 1). Mesenteric lymph nodes were not enlarged and chest appeared to be normal. Tumour markers Beta HCG and alpha-fetoprotein, LDH, urinary Catecholamines metabolites were within normal range.

Ultrasound guided Trucut biopsy of lesion done twice both were inconclusive. Finally, surgical excision of mass was planned after discussion in tumour board meeting. The mass was approached through mid-line laparotomy incision. A dumbbell shaped lobulated, fatty mass in mesentery of mid-ileum. Small bowel appeared to be wrapped around the tumour (Figure-2). The remaining gut was healthy and no lymph nodes were enlarged. The mass along with attached gut was easily delivered extracorporeally. After complete assessment, excision of mass along with 30 cm of mid-ileum was carried out followed by end-to-end anastomosis. Patient had smooth recovery post-operatively and discharged on 5th post-operative day. Histopathology results revealed tumour composed of mature adipocytes with thin septas with no evidence of atypical cell. The patient remained well up to six months on post-operative follow-up.

Keeping in view clinical, radiological, surgical and histological findings lesion was diagnosed as lipoma was diagnosed.




**Figures-1: A heterogeneous large mass with septation and areas of calcification**




**Figures-2: L1 and L2 are two halves of mesenteric lipomas separated by ileal segment 'I'**

## DISCUSSION

Lipomas are benign tumours containing adipose tissues. They are widely associated with skeletal system of body. Intraperitoneal lipomas are rare to witness in routine clinical practice, and are difficult to diagnose preoperatively.[3] They are well defined encapsulated structures that may remain asymptomatic or present with variable symptoms caused by virtue of their size and location.[4,5] They can cause recurrent abdominal pains, subacute obstruction due to compression, or rarely, complete bowel obstruction as a result of volvulus.[6]

In our case patient had significant abdominal distension with associated constipation and occasional non bilious vomiting. The CT scan and MRI are well known role in diagnosing the intraperitoneal lipoma.[7,8] In our case tumour was difficult to categorize on CT scan because of heterogeneous nature and areas of calcifications. This led us to probe for more common tumours of this age at first, like germ cell tumours, lymphangioma, lymphoma and neuroblastoma.[9] Tumour markers and subsequent Trucut biopsies were performed twice which failed to yield a diagnosis. Finally surgical excision was done and biopsy revealed a rare intra-peritoneal tumour, i.e., mesenteric lipoma.

Despite the benign nature of this tumour, total excision with or without the affected intestinal loop should be considered.[10] Similarly our case required resection of about 30 cm of ileum because tumour was difficult to enucleate from mesentery due to its enormous size and its proximity to ileum itself.

A literature review performed by Cha, Jae Myung *et al* at 2007 showed that about 30 cases of mesenteric lipomas had been reported with only seven cases in children.[11] The largest size lipoma so far reported to be of lipoma 28 ×24×10 cm3 (craniocaudal, transverse and anterioposterior).[7] Thus, the case presented here; can exactly be one of the largest mesenteric lipomas reported in infantile period. Due to rarity of disorder, long-term outcome is not known; therefore, long-term follow-up is required to demonstrate its future prospects.

## CONCLUSION

Although mesenteric lipomas are rare, these tumours should be considered in the differential diagnosis of children with intraperitoneal abdominal masses.

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