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Giant mesenteric lipoma: A case report and a review of the literature

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ABSTRACT

Mesenteric lipoma is a rare benign tumor of mature fat cells. Although generally asymptomatic, it occasionally causes abdominal pain, ileus, and small bowel volvulus, depending on its location and size. A definitive diagnosis can be made by pathological examination. Ultrasonography and abdominal computed tomography show this lesion as a well-defined, homogenous mass with fat density surrounded by a thin capsule. Because of its rare etiologic origin, we report the case of a 2-year-old male presented with progressive abdominal distension and failure to thrive, found to be caused by a mesenteric lipoma.

Lipomas presenting in childhood can be superficial or deep. Deep-seated lipomas can originate from the thorax, chest wall, mediastinum, pleura, pelvis, retroperitoneum, paratesticular area and, very rarely, the bowel mesentery [1–3]. As long as the bowel allows passage, mesenteric lipomas often do not cause gastrointestinal symptoms [4,5]. However, a few can cause symptoms consistent with a partial bowel obstruction, such as intermittent abdominal pain, abdominal distention, and vomiting, with very few resulting in intestinal volvulus or complete intestinal obstruction due to torsion [6]. We report a 2-year-old male who presented with abdominal distension and constipation and review the features of children with mesenteric lipomas.

1. Case report

A 2-year-old male presented to our hospital with weight stagnation and increased abdominal girth of 1 year duration. The patient was doing well till the age of 1 year when his mother started to notice weight stagnation, increased abdominal girth, and frequent bowel movements associated with good appetite. Symptoms were not associated with vomiting, irritability or recurrent infections.

He was born by Cesarean section (due to failure of descend), at 38 weeks of gestation, to a G5P3A2L3 mother with smooth course of pregnancy. His birth weight was 3.3 kg and he was having a completely normal developmental history.

Patient was hospitalized at another hospital for workup at the age of 1 year. Investigations revealed negative serologic markers for Celiac disease; Gastroscopy with jejunal biopsy showed atrophic mucosa of duodenum suggestive of malabsorption and Celiac disease, and patient started on gluten free diet. However the patient persisted to have weight loss and increase in the abdominal girth so he was referred to our hospital.

Upon admission, his weight was 10 kg (below 5th percentile). Physical examination revealed that he was a cachetic child, with muscle wasting, and markedly protuberant abdomen with a soft, mobile not tender mass (Fig. 1).

The laboratory tests results were all normal. Abdominal radiography demonstrated mostly gasless abdomen and was suggestive of soft tissue mass (Fig. 2). Abdominal ultrasound showed a mass with the following characteristics:

- Huge with a diameter of 17 × 11 × 16 cm; 1565 cc
- Multilobular, smooth, well delineated, anterior mass
- Intraperitoneal, of bright echogenecity (fatty)
- Homogenous, not calcified, hypovascular revealing numerous linear echogenic bandsevoking fibrous septae dividing it into multiple compartments.

The mass was pushing the stomach and duodenum posteriorly, and bowels to the upper and lower right and left quadrants with minimal surrounding ascitic fluid. The mass had the appearance of benign congenital neoplasm suggestive of “very large lipoma.”

CT of the abdomen revealed a 20 × 10 × 10 cm well encapsulated fatty mass in the mesentery resulting in crowding of the mesenteric

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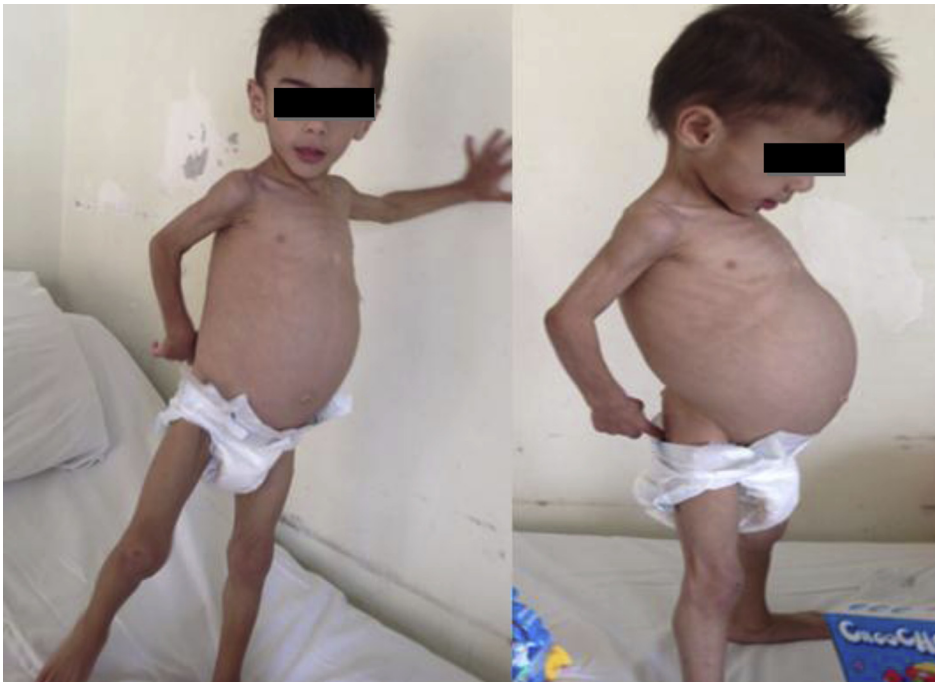

Fig. 1. Cachectic child, muscle wasting of upper and lower limbs and abdominal distension.

structures. The picture was most consistent with a lipoma (Fig. 3). Exploration of the abdomen by midline laparatomy revealed a large mesenteric mass with small bowel loop (short segment of the ileum) involved in it. The mass and small bowel loop were excised and an end to end anastomosis of a small part of the intestine. The mass was completely encapsulated and there was no necrosis, hemorrhage or any complication. The mass measured 22 × 19 × 9 cm, weighting 1620 g (Fig. 4). The pathology showed a yellow lobulated cut surface consistent with benign lipoma (Fig. 5).

The postoperative period was uneventful, and the patient was discharged on the sixth postoperative day. Upon follow up, the patient gained 5 kg during a period of 6 months after surgery (Fig. 6).

2. Discussion

Mesenteric lipoma is an unusual entity that is most often found in adults between 40 and 60 years of age and rarely occurs in the first decade of life, with fewer than 50 pediatric cases reported [2]. Lipomas are the most common soft tissue tumors. Lipomas can be single or multiple and superficially or deeply localized. In children, lipomas occasionally develop superficially or in the trunk. Deep lipomas can be localized in the thorax, mediastinum, thoracic wall, pleura, pelvis, retroperitoneum, and paratesticular area, but they rarely originate in the intestinal mesentery in children. Lipomas have an increased incidence in people with obesity, diabetes mellitus, elevated cholesterol level, familial tendency, trauma, radiation therapy, or chromosomal translocation [2].

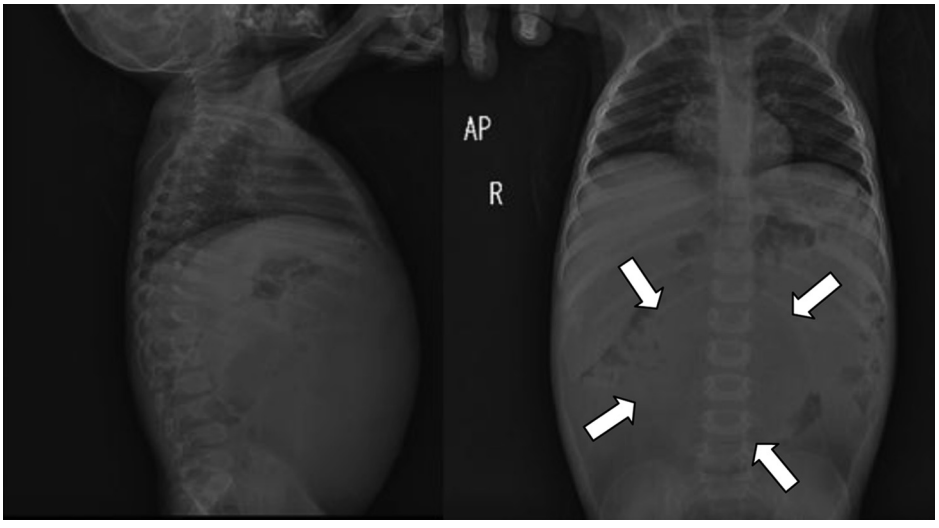

Fig. 2. Abdominal radiography demonstrated a large soft tissue mass in the abdomen distinct from the spleen and the liver.