A Huge Mesenteric Lymphangioma of the Jejunal Mesentery Resulting in Failure to Thrive

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ABSTRACT

Mesenteric lymphangiomas are rare in occurrence. The dumb-bell shaped ones are even rarer. We report a case of a 7-year-old girl with a huge dumb-bell shaped mesenteric tumor weighing 3 kg, located in the jejunal mesentery and causing failure to thrive. En mass excision of the tumor along with the involved bowel segment was done with a successful outcome. Histopathology diagnosed the tumor to be mesenteric lymphangioma of the jejunal mesentery. At a follow-up of 2 years, the child is symptom-free and has a good catch up growth.

Key words: Child, failure to thrive, jejunum, mesenteric lymphangioma

INTRODUCTION

Lymphatic cysts of the mesentery (lymphangiomas) are rare, intra-abdominal masses.[1,2] Approximately, one-third of the lesions are noted in children.[1] They have a varied presentation, ranging from an asymptomatic mass to acute abdomen.[2] They may present incidentally, insidiously, or as an acute life-threatening emergency. Absence of typical signs and symptoms and characteristic clinical findings makes the diagnosis difficult.

CASE REPORT

A 7-year-old female child was brought with history of gradually increasing abdominal distension over 2 years. There was no vomiting or constipation. The child was never hospitalized before and no radiological investigations were carried out so far. She was esthetically built and had a weight of 12 kg. The abdomen was massively distended. A vaguely palpable lump was felt on per abdominal examination. It was dull to percussion. Rectal examination was noncontributory. Erect X-ray abdomen showed few gas-filled bowel loops mainly on the left side. Computerized tomography scan of the abdomen was suggestive of a single well-defined nonenhancing lesion with thin walls and internal septations; filling up the entire abdomen and extending onto the pelvic cavity [Figure 1]. It had displaced the bowel loops completely on one side. No other cystic lesions were noted. The kidneys, spleen and ovaries appeared normal. In view of the examination findings and radiologic evaluation, the working diagnosis was that of an omental cyst (lymphangioma).

However, on exploration, a 25 cm × 20 cm × 18 cm sized cyst was found within the mesentery of jejunum with completely stretched out overlying bowel segment [Figure 2]. The mass was suggestive of a dumb-bell shaped mesenteric tumor. The surrounding bowel loops were also collapsed because of extrinsic compression.

In view of the large size of the tumor, en mass excision of the tumor along with the involved bowel segment was done. Bowel continuity was established by means of interrupted, extramucosal sutures (single layer) using 4-0 polyglactin. The postoperative course was uneventful. Oral feeds were started from postoperative day 6 and were well tolerated. The excised tumor weighed 3 kg. Histopathology showed flattened endothelium without smooth muscle in the cyst wall. Presently, at a follow-up of 2 years, the child is symptom-free and has a good catch up growth.
is totally asymptomatic and is growing well. She has
gained 5 kg weight. The abdomen is scaphoid and
there is no radiological evidence of tumor recurrence.

DISCUSSION

Mesenteric cysts are rare intra-abdominal
masses with very sparse literature available in the
standard textbooks. Because of their rarity, lack of
adequate information, and uniform nomenclature,
they have been described differently in various reports
presented. Furthermore, there is a lack of a standard
classification. In their review article published in the
year 2000, de Perrot et al [3] have put forth a simple and
comprehensive classification of intra-abdominal masses
based on histopathological features. It categorizes
them into the following six groups: Cysts of lymphatic
origin (simple lymphatic cyst and lymphangioma),
cysts of mesothelial origin (simple mesothelial cyst,
benign cystic mesothelioma, and malignant cystic
mesothelioma), cysts of enteric origin (enteric cyst
and enteric duplication cyst), cysts of urogenital
origin, mature cystic teratoma (dermoid cysts), and
pseudocysts (infectious and traumatic cysts).[3]

Cysts of lymphatic and mesothelial origin are those
most frequently encountered, but both have distinctive
clinical features. Lymphangiomas predominate in male
children under 5 years of age.[3-5] Their reported incidence
is <1/1,00,000 hospital admissions.[5] They present
with chronic abdominal distension or acute intestinal
obstruction with or without peritonitis.[4] Lymphatic
cysts in the distal small bowel and colonic mesentery
contain serous fluid, whereas those located more
proximally (proximal small bowel mesentery) are chylous
in nature. Although the exact etiology of mesenteric
lymphangioma is unknown, their occurrence in neonates
and infants supports the theory that they are primary
congenital malformations.[5] Stemming from sequestration
of the lymphatic tissue, they characteristically infiltrate
the surrounding structures by local extension and can
produce new lesions by extension or new growth.[6]
Radical removal of the tumor with microscopically clear
borders is thought to be curative.[7]

In our case, the preoperative diagnosis was that
of an omental lymphangioma since the radiological
investigations showed a huge cyst in front of the
intestines. However, a large dumb-bell shaped
mesenteric tumor almost prolapsed out, on opening
the abdomen. The overlying portion of the bowel was
completely stretched out over the tumor. In view of
the gigantic size of the tumor, enucleation was not
attempted. Resection of the dumb-bell shaped mass with
adherent portion of the intestine was done. The tumor
was filled with milk-cream thick chyle [Figure 3], which
is the typical presentation of mesenteric lymphangioma.

Weeda et al. have reported two cases of
mesenteric cystic lymphangiomas in combination
with malrotation and intermittent volvulus. Both mesenteric cystic lymphangiomas were located near the duodenojejunal junction.[8] Similarly, in our case, the lymphangioma was located in the proximal jejunal mesentery. However, there was no evidence of malrotation. Contrary to the common occurrence in boys under the age of 5 years, in our case, it presented in a girl child that too at the age of 7 years with failure to thrive.

The report highlights the need for early radiological evaluation of any child presenting with abdominal distension with or without abdominal pain, before catastrophic complications such as volvulus and gangrene of the involved bowel occur. Mesenteric lymphangiomas should be considered as one of the differential diagnoses in children with abdominal pain, particularly after exclusion of more common diagnoses. It attests the age-old assumption that abdomen is still a Pandora’s box, in spite of all the modern radiological imaging modalities. The operating surgeon should be aware of all the possible treatment options and should be able to take the right decision on table.

REFERENCES


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