



A Rare Case of Massive Adult Mesenteric Lymphangiomas Presenting as Acute Abdominal Obstruction: A Case Report

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Abstract

Lymphangioma usually occurs in children and usually involves the skin. Mesenteric lymphangioma is extremely rare in adults. Gastrointestinal and mesenteric lymphangioma or lymphangiomas are extremely rare in adults. A lymphangioma usually appears as a partially septated, cystic mass on imaging studies including ultrasound, Computed Tomography (CT), and Magnetic Resonance Imaging (MRI). Lymphangioma is a rare benign tumor that develops in the lymphatic system. Lymphangiomas occasionally occur diffusely, and this process is referred to as “generalized lymphangiomas”. This disease usually occurs in children and involves the skin. Mesenteric lymphangiomas is extremely rare in adults.

Keywords: Mesenteric lymphangioma; Acute abdomen; Intestinal obstruction

Introduction

Lymphangiomas is a condition where the defective lymphatic channels develop over a large area as compared to Lymphangioma which is localized. It can be seen in any tissue that has lymphatics. Here we present a rare case of mesenteric Lymphangiomas.

Case Presentation

A 45 Year old female presented to ER with complaints of pain abdomen since 8 days associated with fever, vomiting and not passage of feces and flatus since 7 days. She was brought in state of shock and was febrile and hypotensive with BP of 70/40 mmHg and pulse of 140 bpm with respiratory rate of 40 cycles/min and severely dehydrated. On per abdominal examination abdomen was grossly distended with board like rigidity and rebound tenderness with absent bowel sounds. Note on percussion was tympanic. Pain started in the right lower abdomen, progressed to entire abdomen over the period of 8 days. Blood investigations showed raised TLC of 32,000 cumm and acidosis with p^H of 7.0. X-ray abdomen standing showed multiple air-fluid levels with ground glass appearance and an USG showed multiseptated organized collection filling the peritoneal cavity with dilated bowel loops showing sluggish peristalsis.

Patient was immediately admitted and after initial resuscitation with a pre-operative diagnosis of peritonitis secondary to perforation was taken to the OR.

Intraoperative Findings

- Approximately 500 ml of whitish foul smelling fluid was present in the peritoneal cavity.
- Approximately 31/2 feet away from the duodeno-jejunal junction grossly thickened lobulated mesentery encasing 1 feet of ileum within it, causing extra luminal obstruction and the proximal and distal bowel with its mesentery was found to be normal (Figure 1).
- Proximal to the obstruction bowel was distended and distal bowel was collapsed.
- Grossly thickened lobulated mesentery containing multiple cysts within it which were filled with whitish fluid (Figure 2).

Operative Procedure

Exploratory laparotomy with resection of the encased bowel and mesentery with ileo-ileal end to end anastomosis with peritoneal toileting. The diagnosis of abdominal Koch's was made.

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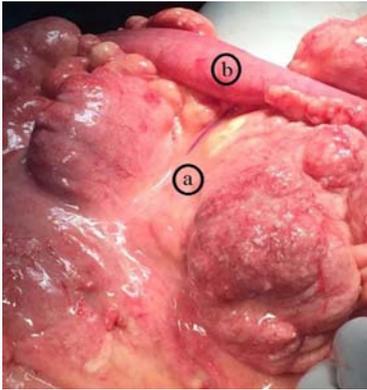


Figure 1: a: Thickened mesentery with multiple cysts, encasing, and b: Collapsed small bowel.

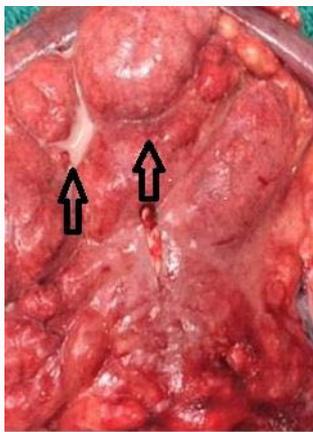


Figure 2: Thickened mesentery with whitish fluid filled multiple cysts.

Histopathology report was a surprise “Cavernous lymphangioma of the mesentery and involving bowel” (Figure 3).

Post operatively patient was in ICU for 1 day and thereafter was shifted and discharged from ward after 8 days without any significant post-op period.

Discussion

Lymphangioma or lymphangiomatosis affect the skin, the covering of various organs and areas except of the brain. About 90% are diagnosed within the first two years of their existence [1,2]. In adults, gastrointestinal tract involvement of mesenteric lymphangioma is very rare; the distal ileal mesentery is most frequently involved [3]. The etiology of lymphangiomas is still unclear. They are considered to be a congenital dysplasia of lymphatic tissue and abnormal development of the lymphatic vessels during fetal life [4,5]. The macroscopic appearance of lymphangioma is a cystic mass with partial septations and its histological characteristics are endothelial-lined, dilated, communicating lymphatic channels containing a variable amount of connective tissue and smooth muscle fiber [4,6]. Lymphangiomas are generally classified as simple capillary, cavernous, and cystic according to the size of lymphatic space and the nature of the lymphatic wall [7,8]. Cavernous lymphangioma is composed of dilated lymphatic vessels and lymphoid stroma and is connected with the adjacent normal lymphatics. Alternatively, cystic lymphangioma is composed of various-sized lymphatic spaces and has no connection with the adjacent normal lymphatics. However, as cystic lymphangiomas

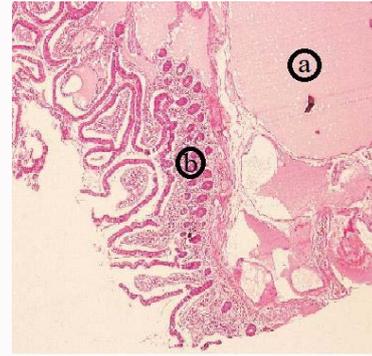


Figure 3: Dilated lymph channels in the (a) mesentery and (b) bowel wall.

may have a cavernous area, clear differentiation between cystic and cavernous lymphangioma is not always possible [8,9].

These benign malformations are classified into four categories [10]

- Capillary lymphangioma,
- Cavernous lymphangioma,
- Cystic lymphangioma (hygroma)
- Hemolymphangioma (a combination of hemangioma and lymphangioma).

Lymphangiomatosis is one subtype of lymphatic disease, which is a much rarer condition. It can be limited to a particular organ or structure (e.g., spleen, liver, or thoracic cavity) or involve a more generalized process [11]. Lymphangiomatosis have been observed in all organs such as kidney, lung, liver, but except the brain, which is devoid of lymphatic channels. Due to absence of lymphatics in brain it's spared from lymphangiomatosis [12].

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