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Case Report

Cystic lymphangioma of small bowel mesentery: a rare case report

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ABSTRACT

Cystic lymphangiomas are rare neoplasms. A 49 year old male patient presented with complaints of lump in abdomen weight loss since 1 month. On examination, patient had a diffuse visible lump above the umbilicus. Ultrasonography of abdomen and pelvis showed a well-defined smoothly marginated anechoic to hyperechoic lesion in midline and left side of abdomen. CECT of abdomen and pelvis was suggestive of pedunculated small bowel leiomyoma desmoid tumor. Exploratory laparotomy with resection of affected loop of jejunum and the supplying mesentery containing the tumor and resection and anastomosis of adjacent small bowel was done. Histologically, the tumor was diagnosed as mesenteric lymphangioma.

Keywords: Mesenteric lymphangioma

INTRODUCTION

Lymphangiomas are rare tumors of small intestine and mesentery in adults with uncommon clinical features. Here we discuss a patient with a large mesenteric lymphangioma who presented as slow growing mass per abdomen.

CASE REPORT

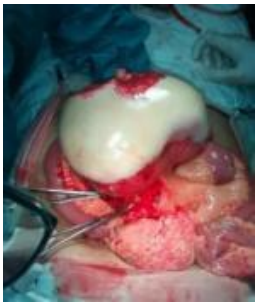
A 49 year old male patient with complaints of lump in abdomen since 1 month presented to department of surgery on 15/9/14. On physical examination, patient had a diffuse visible lump above the umbilicus. The lump was measuring 18 x 14 x12 cm involving umbilical, epigastric, left hypochondriac region with firm consistency and smooth surface. Swelling was freely mobile perpendicular to plane of mesentery and dull on percussion. Patient was known case of diabetes mellitus since 10 years. There was no history of abdominal surgery. Routine laboratory investigations were normal. Ultrasonography of abdomen and pelvis showed a well defined smoothly marginated anechoic to hyperechoic lesion measuring approx. 18 x 14 x 12 cm with thick wall noted in midline and left side of abdomen, posterior to the stomach and inferior to the distal body and tail of pancreas. CECT of abdomen was suggestive of pedunculated small bowel leiomyoma desmoid tumor measuring 17.8 x 14.4 x 12 cm. Exploratory laparotomy was performed.

Intra- operatively a yellowish, fluctuant, and soft tumor was found in the mesentery of jejunum approximately 110cm from the D-J flexure (Figure 1A-C). Affected loop of jejunum and the supplying mesentery containing the tumor were resected and end to end anastomosis of small bowel was done.

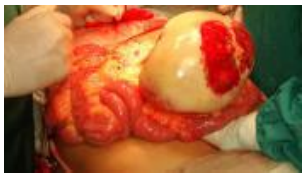
The patient's postoperative course was uneventful and the symptoms were completely relieved after the operation.

On cut section, creamy semi-solid material came out. The cut section of saccular mass shows thickened wall ranging from 1.5 cm to 2.0 cm. Proximal part of mesentery was 7.0 cm away from the tumour and distal part was 1.0 cm away from the tumour.

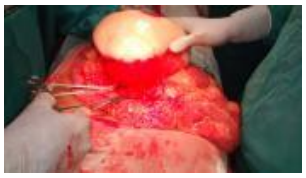
Histological examination (Figure 2A-D) revealed that the cyst wall was lined by flattened endothelial lining and fibrocollagenous stroma underneath containing lymphoid aggregates. The section from omentum showed many congested blood vessels with mature adipose tissue. The tumor was diagnosed as mesenteric lymphangioma.



1A

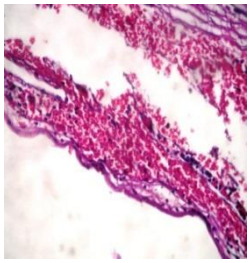


1B

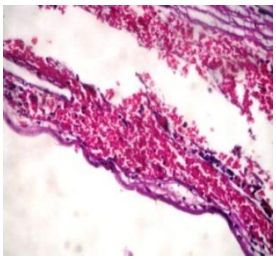


1C

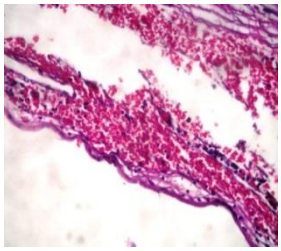
Figure 1: Intra- operative finding of lymphangioma arising from small bowel mesentery.



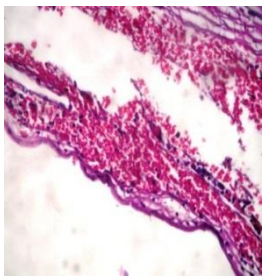
2A



2B



2C



2D

Figure 2: Microscopic images of the cut section of the tumor.

DISCUSSION

Lymphangioma is a benign tumor which may occur at any age, although it typically develops during childhood. They most commonly present as palpable, soft, cystic, slow growing mass in abdomen, abdominal pain, vomiting, and constipation or with complications such as secondary infection, rupture with hemorrhage, and volvulus or intestinal obstruction. The origin of this tumor is thought to be either trauma or an anomaly of the lymphatic system.[1-7] This embryonal theory is supported by the fact that most cases are diagnosed during childhood. Other possible etiologies include bleeding or inflammation in the lymphatic channels, both leading to obstruction and subsequent lymphangioma formation. Lymphangioma usually develops in the neck (75% of cases), axilla (25%), mediastinum (4–5%). It is very rarely seen in the mesentery and retroperitoneum (<1%).[1,2,8,9]

The tumor is classified into the 3 pathologic types of capillary, cavernous, and cystic.[1,2,7] A cystic lymphangioma occurs in the abdominal cavity or retroperitoneum and has the following characteristics: the cyst wall consists of a monolayer of endothelial cells, small lymphatic spaces, abundant lymphoid tissue, and smooth muscle, and foam cells are present containing lipoid material in varying amounts.[5] Such masses are also called hamartomas.[1,7]

Assessment by ultrasonography, CT, and MRI, is very important for the diagnosis of a mesenteric lymphangioma.[10,11] The typical CT feature of mesenteric lymphangioma is a multiloculated fluid-filled mass. Characteristic thin walls and septa also can be seen on a CT scan. Some diseases can be confused on imaging with mesenteric lymphangioma; these include a pancreatic tumor, gastrointestinal stromal tumor (GIST), hemangioma and lymphangiosarcoma.

Although it is a benign tumor, it often has life-threatening complications such as secondary infection, rupture with hemorrhage, and volvulus or intestinal obstruction[8, 12,13] surgical management being the most effective to prevent recurrence.[1,5,8,9] Treatment of choice is enucleation; resection of the adjacent bowel may occasionally be necessary. Morbidity and mortality is very low because of modern surgical techniques and follow-up procedures. OK432, a sclerotherapeutic agent consisting of an injectable, lyophilized incubation mixture of group A *Streptococcus pyogenes*, is the only medication known to be effective against lymphangioma. The tumor can be reduced in size by injecting OK432 into the cysts, and the agent is often used on the surface of a lymphangioma. OK432 may also be useful in cases with difficult complete resections.

Treatment of choice is enucleation; resection of the adjacent bowel may occasionally be necessary. Morbidity and mortality is very low because of modern surgical techniques and follow-up procedures.

CONCLUSION

Lymphangioma is a benign tumor which may occur at any age, although it typically develops during childhood.

They most commonly present as palpable, soft, cystic, slow growing mass in abdomen. It is very rarely seen in the mesentery and retroperitoneum (<1%). Treatment of choice is enucleation; resection of the adjacent bowel may occasionally be necessary.

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