
CT OF GIANT MESENTERIC LIPOMA: A case report

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ABSTRACT

Mesenteric lipoma is a benign tumor of mature fat cells which is extremely rare and very few cases have been reported in children. Asymptomatic abdominal mass, progressive abdominal distention and intraperitoneal fat density mass on computed tomography are the main diagnostic criteria. Differential diagnosis is lipoblastoma. As an unusual case, a 3-year-old boy with a giant mesenteric lipoma is presented in this report.

INTRODUCTION

Lipoma is a tumor that is composed of mature fat and represents the most common soft tissue tumor. It is a slow growing benign tumor of fatty tissue that form a lobulated soft tissue mass enclosed by a thin fibrous capsule. Mature lipomas in children have a predilection site for the trunk. Deep lipoma were reported in thorax, mediastinum, chest wall, pelvis, retroperitoneum and paratesticular region. Intraperitoneal lipoma is extremely rare in children and very few lipomas of the mesentery have been reported.¹ As an unusual case, a 3-year-old boy with a giant mesenteric lipoma is presented in this report.

CASE REPORT

A 3-year-old boy was admitted with a large abdominal mass and progressive abdominal distention within the last 2 years. The physical examination showed marked abdominal distention with a soft, ill-defined round mass at mid abdomen, size about 10 cm. Laboratory findings were normal. Computed tomography of the abdomen showed a large nonenhanced, sharply marginated, uniform fat density mass with internal septations, size about 9.5x19 cm. at mid abdomen. The lesion extended nearly entire peritoneal cavity, displacing bowel loops posterolaterally. (Fig 1A-D)

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Fig.1A

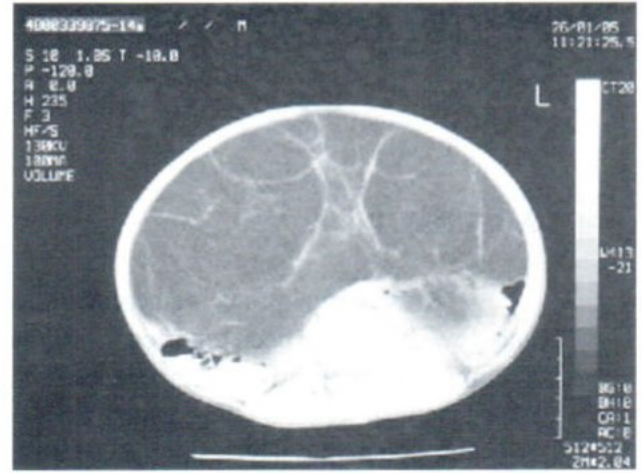


Fig.1B

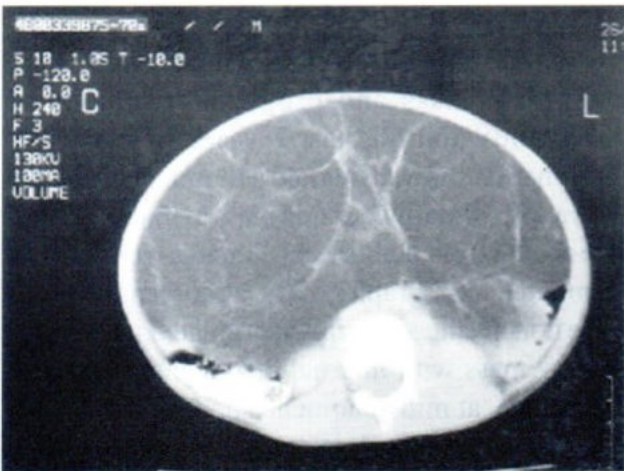


Fig.1C

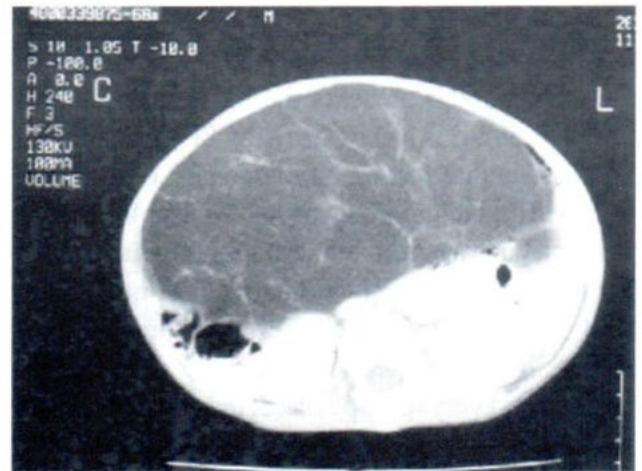


Fig.1D

Fig.1 Nonenhanced (A,B) and contrast-enhanced(C,D) CT scan of the abdomen show a large nonenhanced, sharply margined,uniform fat density mass with internal septations,displacing bowel loops posterolaterally.

At laparotomy, a smooth, well-encapsulated mass diameter about 21 X 19.5 X8 cm. weighing 1800 g. was found at the mesentery of the colon (mesocolon). Complete resection was performed. The

macroscopic examination showed the encapsulated lipomatous mass with an irregular lobular pattern and a pale yellow appearance on cross section. (Fig.2 A-B)

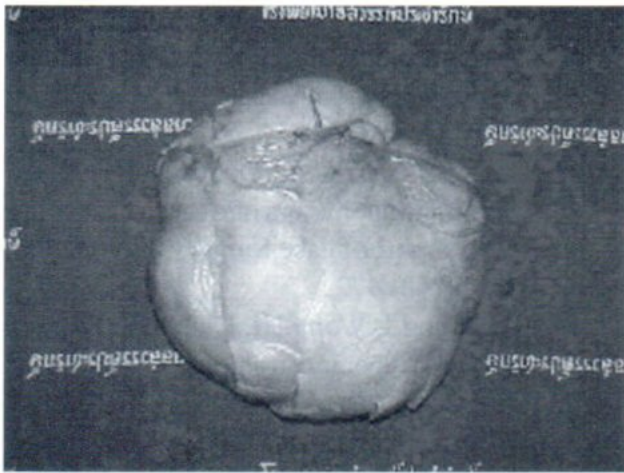


Fig.2A



Fig.2B

Fig.2A-B Gross specimen reveals encapsulated lipomatous mass with irregular lobular pattern (Fig.2A) and a pale yellow appearance of cross section.(Fig.2B)

The microscopic examination showed a well-formed capsule with interior mature fat cells showing only slightly variation in cellular size and shape.(Fig.3) Pathologically, the tumor was diagnosed as lipoma.

DISCUSSION

Most peritoneal tumors in childhood are benign and cystic, the most common is cystic lymphangioma. Lipomatous tumors are very uncommon in childhood. They arise less often in the peritoneum and omentum than in the retroperitoneum. Mesenteric lipoma is a rare benign tumor of mature fat cells.² Characteristic of the clinical history of lipoma is asymptomatic, slow growing, rounded mass having a soft consistency with a good mobility. It is generally asymptomatic but occasionally causes abdominal pain, ileus and small bowel volvulus depending on its location and size.^{3,4,5}

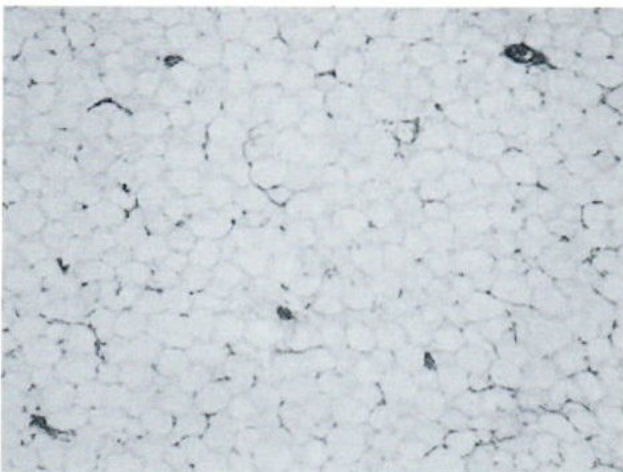


Fig.3 Photomicrograph of lipoma consisting of mature fat cells shows slight variation in cellular size and shape.

CT plays a critical role in achieving an accurate diagnosis of mesenteric lipoma. Lipomas typically demonstrate homogeneous fatty attenuation at CT. Thin fibrous septa may traverse the lesion.⁶ CT scan of the abdomen in this patient delineated a homogeneous nonenhanced and sharply margined

fat density mass with internal septations. Lipomas differ little in microscopic appearance from the surrounding fat. Like fat, they are composed of mature fat cells but the cells vary slightly in size and shape. The major differential diagnosis is lipoblastoma. Lipoblastomas are rare soft tissue mesenchymal tumors of embryonic white fat that occur during infancy and early childhood. More than 90% of cases are diagnosed in children less than 3 years of age with nearly 75% occurring before the age of 12 months. Lipoblastoma typically occur in the extremities (70% of cases) with the remainder of cases in mediastinal, retroperitoneal or paravertebral areas. These tumors are divided into two categories, the more common superficial well-defined mass is known simply as lipoblastoma. The second form is a deep, unencapsulated infiltrative lesion known as lipoblastomatosis. A few cases of mesenteric lipoblastoma have been reported. CT do not permit differential diagnosis from lipoma. Microscopically this lesion differs from lipoma by its cellular immaturity and close resemblance to the myxoid form of liposarcoma.⁷

Lipoma may recur locally, but after local excision the recurrence rate is less than 5%.

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REFERENCES

1. Lihan H, Tokar B, Isiksoy S. Giant mesenteric lipoma. *Journal of Pediatric Surgery* 1999; 34(4): 639-640.
2. Kaniklides C, Frykberg T, Lundkvist K. Paediatric mesenteric lipoma, an unusual cause of repeated abdominal pain. *Acta Radiologica* 1998; 39: 695-697.
3. Ozel SK, Apak S, Ozercan IH. Giant mesenteric lipoma as a rare cause of ileus in a child: report of case. *Surgery Today* 2004; 34(5): 470-472.
4. Kaohsung J, Wong HI, Chen CY. Primary mesenteric lipoma causing closed loop bowel obstruction. *J. Med Sci.* 2005; 21(3): 138-141.
5. Wolko JD, Rosenfield DL, Lazer MJ. Torsion of a giant mesenteric Lipoma. *Pediatric radiology* 2003; 33(1): 34-36.
6. Pereira JM, Sirlin CB, Pinto PS. CT and MR imaging of extrahepatic fatty masses of the abdomen and pelvis: techniques, diagnosis, differential diagnosis, and pitfalls. *Radiographic* 2005; 25(1): 69-85.
7. Zenetti G. Benign lipoblastoma: first case report of a mesenteric origin. *Tumori* 1988; 74(4): 495-498.