Full text online at http://www.jiaps.com

Dermoid cyst of the mesentery in an infant

Prosanta Kumar Bhattacharjee, Debabrata Ray, Amarendra Nath Sarkar, Probhas Chandra Biswas

Department of surgery, North Bengal Medical College and Hospital, Susrutanagar, Darjeeling, West Bengal, India

Correspondence: Prosanta Kumar Bhattacharjee, Flat No 10-C, 9, Mandeville Gardens, Kolkata-700019, India.
E-mail: prosantabh@rediffmail.com

ABSTRACT

7 months old male child presented with abdominal distension since birth. On examination there was a lobulated, tense cystic mass occupying almost 2/3 of the abdominal cavity. Ultrasonography (USG) revealed a predominantly hypoechoic mass measuring 17cm x 14cm x15cm. CT scan of abdomen showed a multiseptate cystic mass with eccentrically located areas of fat and calcification. Exploration of the abdomen revealed a huge thick walled cyst within the leaves of the mid ileal mesentery which could be enucleated out entirely after careful dissection. Histopathology suggested it to be a benign cystic teratoma (Dermoid cyst).

KEY WORDS: Cyst, Mesentery, Dermoid

The first reported mesenteric cyst is ascribed to the Italian anatomist Benevieni who descried it following an autopsy on an 8-year-old girl in 1507.[1] There are varieties of mesenteric cysts including chylolymphatic, enterogenous, urogenital, teratomatous, gas, mycotic, parasitic, tubercular cysts and cysts following malignant degeneration. [2] Dermoid cysts are uncommon mesenteric cysts. [1] Only 6 cases are reported on MEDLINE database.

Herein we report one such extremely rare case of dermoid cyst of the ileal mesentery in an infant.

CASE REPORT

A 7 months old male child was noticed to have abdominal distension since birth. He had history of vomiting after feeds whose frequency and amount reduced from 4 months of age. His bowel habits were normal and there was no history of temperature. The mother was primi parous, 20years old and borne the child by normal delivery.

On examination the child appeared jolly and active. There was a well defined, lobulated, tense cystic mass, measuring approximately 17cm x 14cm, occupying almost 2/3 of the abdomen including the epigastrium, right hypochondrium, right lumbar, umbilical and right iliac fossa, encroaching on to the left hypochondrium. The huge size of the mass was simulating loculated ascites. There was not much free space left in the abdominal cavity to test its mobility; there was definite fluid thrill. The mass was not palpable on per rectal digital examination. There was no other associated congenital anomaly.

Hematological and biochemical investigations were normal except for a hemoglobin level of 9.7gm%. USG of the abdomen revealed a large mass with thin septations having homogeneous low level echoes and focal high intensity echoes, occupying the major part of the abdominal cavity. Though the site of origin of the lesion could not be defined it was separate from liver, pancreas, kidneys and spleen. CT scan of the abdomen showed a fairly large, multiseptate, cystic mass with eccentrically located areas of fat and calcification [Figure 1]. The lesion splayed the abdominal organs out; coils of intestine were pushed to the left lower quadrant of the abdomen. The overall heterogenicity of echo pattern on USG and the suggestive CT scan findings helped us in arriving at a preoperative provisional diagnosis of a teratomatous cyst possibly of mesenteric origin.

Exploration of the abdomen revealed a huge thick walled

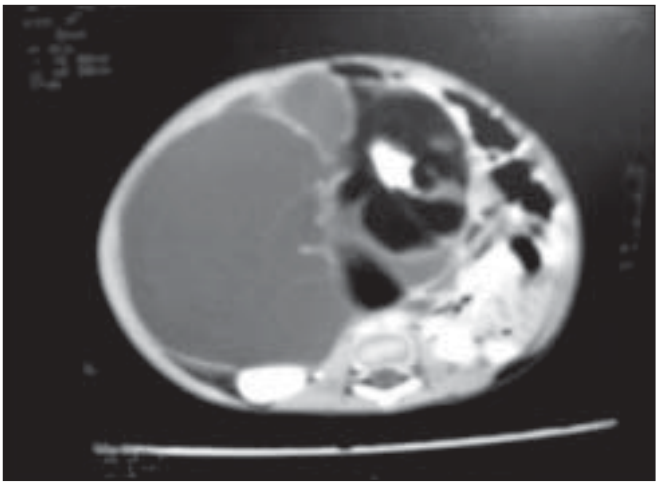

Figure 1: CT Scan of the abdomen showing a fairly large, multiseptate, cystic mass with eccentrically located areas of fat and calcification

cyst located within the leaves of the ileal mesentery, adherent to the transverse mesocolon and omentum at places. Mesenteric lymph nodes and other abdominal viscera were normal. The entire cyst could be enucleated out without injuring any mesenteric vessel. It was thick walled; whitish and contained gelatinous fluid. At one end of the cyst there was a mass, which on sectioning revealed plenty of fat, with hair, bony and cartilaginous elements.

The postoperative recovery was uneventful and the patient was discharged on the 8th day. Histologic examination showed a cyst lining almost identical to those of skin with several pilosebaceous units. Serial sections revealed neuroectodermal, mesodermal and endodermal elements consistent with the diagnosis of a dermoid cyst.

DISCUSSION

Mesenteric cysts are rare abdominal tumors; the incidence varies from 1 per 100,000 to 250,000 admissions. [3] Dermoid cysts of the mesentery in children are unusual cause of mesenteric cysts and only few cases have been reported. [4, 5] Cystic teratomas arise from pluripotent cells containing tissue, which is foreign to the anatomic site in which they arise and are usually located along the midline or in the paramedian location. In children they are most frequently located in the sacroccocygeal region.

Differential diagnosis includes intestinal duplication cysts, ovarian, choledochal, pancreatic, splenic or renal cysts, hydronephrosis, hydatid cyst or loculated ascites. Ultrasonography, CT and MRI scanning help in the diagnosis. They can also be detected by prenatal ultrasonography. Surgical excision, preferably enucleation, as was done in this reported case, is the treatment of choice. Even in malignant mesenteric cysts (majority are low grade malignancy) simple enucleation is sufficient and is associated with high cure rate.[3]

REFERENCES

1. Chattopadhyaya PK, Chattopadhyaya G. Dermoid cyst of the mesentery. J Indian Med Assoc 1978;70:227-8.
2. Beahrs OH, Judd ES, Dockertt MB. Chylous cysts of the abdomen. Surg Clin North Am 1950;30:1081-96.
3. Liew SC, Glenn DC, Storey DW. Mesenteric cyst. Aust N Z J Surg 1994;64:741- 4.
4. Prieto ML, Casanova A, Delgado J, Zabalza R. Cystic teratoma of the mesentery. Pediatr Radiol 1989;19:439.
5. Sikora Z, Rylski J. Case of dermoid cyst of the intestinal mesentery in a child. Pol Przegl Chir 1977;49:157-8.