LYMPHANGIOMA OF MESENTERY IN A CHILD*

A Case Report

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Lymphangiomas of the mesentery are exceedingly rare. The Florentine anatomist Benevieni is generally credited to having described the first case in 1507. Parson (1936) found 500 cases of mesenteric cysts in the literature, of which only 10 were possibly of lymphatic origin. Beahrs et al. (1950) found only 9 cases of lymphangioma of the mesentery at Mayo Clinic from 1911 to 1942. Collins and Berdes (1934) did not find even a single case of chylous cyst of the mesentery in 15000 necropsies at the University of Minnesota.

Due to the infrequent occurrence of these cysts and the importance of their recognition and management it seemed desirable to report this case of lymphangioma of the mesentery.

Report of a Case

A., a 3-year-old male child, was admitted to the S.N. Children's Hospital, Allahabad, on 4.11.77 with the history of pain and swelling in the abdomen for ten days. The pain was severe in intensity, arising in the umbilical area, spreading all over the abdomen and coming in bouts. The swelling noticed in the left side of the abdomen gradually increased in size over a period of ten days. He had few bouts of vomiting during hospitalisation. Bowel movements were normal.

Physical examination revealed a moderately well nourished child, without any significant lymphadenopathy, cyanosis, jaundice or oedema. Abdominal examination revealed a smooth, nontender, firm, intra-abdominal lump occupying the left lower hypochondrium, lumbar and left side of the umbilical regions, not moving with respiration but slightly mobile from side to side. Its limits were well defined. The renal angles were free. No fluid was present in the peritoneal cavity.

Investigations: Haematological investigations except showing mild anaemia were within normal limits. A plain X-ray of the abdomen showed a soft tissue shadow occupying the left side of the abdomen. Barium meal studies showed displacement of one loop of small bowel to the extreme left side and of the rest of the bowel loops to the right. I.V.P. showed both kidneys functioning normally.

Clinical diagnosis of a mesenteric lump was made. Exploratory laparotomy revealed a large multicystic swelling arising from the jejunal mesentery extending up to its root. The jejunal loop was stretched over the cyst and its mesenteric border merged with the
cyst wall. The lumen of the cyst did not communicate with that of the jejunum. The cyst along with 20 cm of a jejunal loop firmly attached with it was excised and end to end anastomosis was performed. The post-operative course was uneventful and the patient recovered completely.

The specimen measured 12 cm × 8.5 cm. The outer surface was nodular and the cut surface showed multiple cystic spaces. On histopathological examination, large cavernous spaces filled with lymph and collection of lymphoid tissue were seen.

Discussion

Lymphangioma of the mesentery is a rare entity. Common sites are neck and axilla but these have also been reported in arm, mediastinum, mouth region and abdomen, other rare sites being kidney, spleen, and pancreas (Willis 1967). Most of the cervical and axillary growths are noticed at birth but some do not appear until later. In the report of Burnett et al. (1950) of 200 cases of mesenteric cysts of all types, 25% of the cases were children under the age of 10 years. Gross (1953) reported the discovery of congenital cysts of the omentum, mesentery and mesocolon in 19 children, all 10 years or younger.

Sex is nearly equally affected, females slightly predominating (Moore 1957, Willis 1967). Burnett et al. (1950) also reported a slight female preponderance (1.6:1).

There is considerable doubt as to whether these lesions are true angiomatous malformations. Goetsch (1938) believes that these lymphatic tumours are true infiltrating neoplasms and not merely an enlarging cyst or malformation. Ewing (1940) considered these as lymphangiomas arising from embryonic lymphoid centres due to congenital or acquired obstruction of the lacteals. In the opinion of Willis (1967) fluid accumulation, progressive formation of collaterals and in some cases supervening thrombosis and organisation suffice to account for growth of these tumours. Anderson (1967) thought that probably these tumours arose from sequestrations of lymphatic tissue. Gross (1953) regarded them to be arising from congenitally displaced lymphatics which failed to communicate with the normal channels. Lymphatic obstruction as a possible cause has also been suggested (Handelsman and Ravitch 1954, Amos 1959).

These cysts are usually single. In some cases a number of cysts may be present. They may be present in any part of the mesentery but usually in the root (Anderson 1967). These cysts may attain a great size. In the report of 4 cases by Moore (1957), all cysts were of a large size, two being dumb-bell shaped. These cysts were unilocular.

Clinically, the most suggestive symptoms in many cases are repeated attacks of abdominal pain, abdominal enlargement, vomiting and nausea (Gross 1953, Moore 1957). 80% of cases of Burnett et al. (1950) had abdominal pain as the most frequent symptom and 50% had a palpable mass, vomiting and nausea. Acute symptoms are usually due to torsion and haemorrhage into the cyst. Acute intestinal obstruction may be produced due to stretching of the gut thus obliterating the lumen of the bowel (McNab and Menzies 1949) or due to volvulus of the bowel (Rohatgi et al. 1974). Major symptoms in 13 cases reported by Gross (1953) and 4 cases by