

Omental Demoid Cyst: Case Report And Review Of The Literature

H Fernando, D Rajan, S Duvuru, R Kanthiah

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Abstract

Background: To review a case of omental dermoid cyst and review the literature.

Case Presentation: Clinical presentation of the case with radiological investigations and operative findings have been described.

Conclusions: Though a rare entity, its aetiopathogenesis and its probable malignant change merits importance.

INTRODUCTION

Dermoid cyst of the omentum is a surgical condition rarely encountered in practice (1). However, its malignant potential and source of origin demands its awareness.

CASE REPORT

A 60 year old female presented with complaints of vague upper abdominal pain. She had no gastro-intestinal or gynaecological symptoms otherwise. She had no previous abdominal surgeries. Physical examination revealed a discrete non-tender 12x12cm mass, just to the left of the midline and above the umbilicus which was nonpulsatile. Abdominal radiography showed a well calcified spherical mass (Fig. 1).

Figure 1

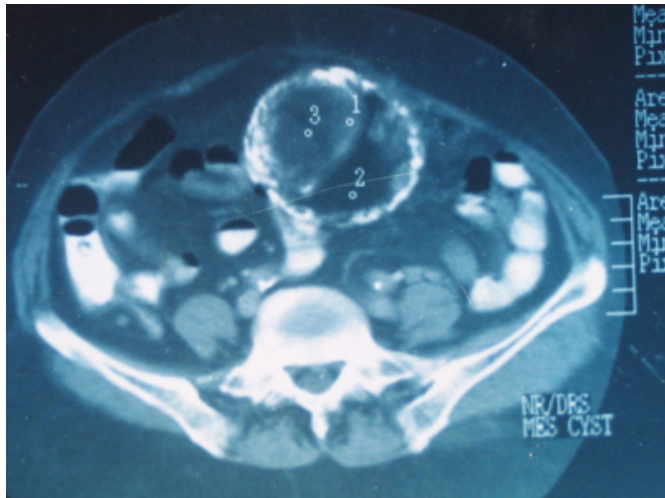
Figure 1: Plain X-ray of the abdomen showing the mass with a smooth rim of calcification.



Computerised Axial Tomography showed a large multiloculated cystic mass with 3 smaller cysts inside with areas of calcific foci within it (Fig. 2).

Figure 2

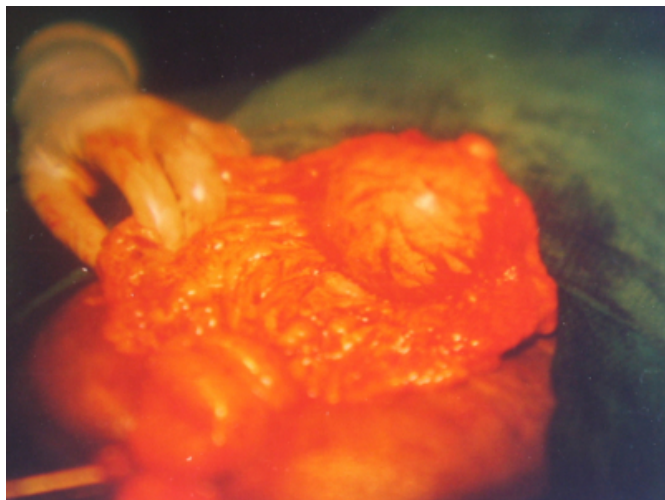
Figure 2 : CT scan of the abdomen showing the multiloculated cyst.



At exploratory laparotomy a large cystic mass measuring 15 x 12 cm was found in the omentum with a large vessel supplying it (Fig. 3).

Figure 3

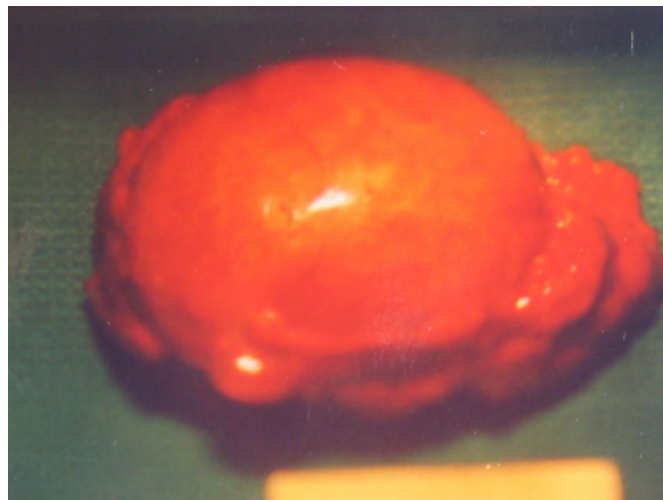
Figure 3 : Laparotomy showing the cyst in the omentum.



The cyst was excised in toto (Fig. 4).

Figure 4

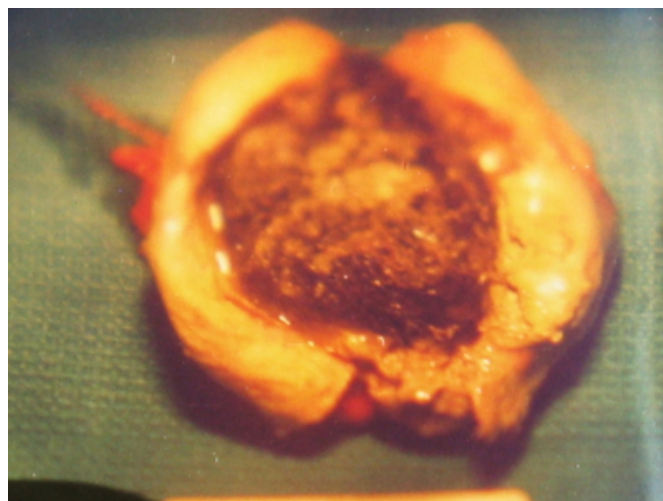
Figure 4 : Figure showing the specimen



Both the ovaries were normal. Cut section of the specimen showed pultaceous material with tufts of hair and sebum (Fig. 5) and weighing 210 grams. Microscopically, the cyst was lined with squamous epithelium containing hair follicles and cartilaginous material. There was no evidence of any ovarian tissue.

Figure 5

Figure 5 : Cut-section of the cyst showing the hair and pultaceous material.



DISCUSSION

Omental Dermoid cysts have been reported few and far in between in the literature (2). The first case was reported by Meckel in 1815(3). Mummey et al. in 1928 reported 15 cases (3). Subsequently 12 more cases were reported till 1983 by Kearney (4) et al. The actual mechanism of origin of these cysts is not known. Several mechanisms have been proposed though.

1. Primitive germ cells get trapped as they migrate from the yolk sac to the urogenital ridge between the third and the sixth week. (5)
2. Detachment from the ovary with implantation in the omentum with parasitism of blood supply. (6)
3. Origin from a supernumerary ovary located in the omentum (7).
4. Torsion of ovarian dermoid with apparent omental autoimplantation (8).
5. Adhesions due to previous surgeries causing the ovarian dermoid cyst to establish a new omental blood supply (9).
6. Ovarian dermoid cysts with implants in the omentum (10).

Omental cysts can also due to various other causes.

1. Failure of embryonic lymph channels to join the venous system causing a lymphatic cyst.
2. Lymphatic obstruction
3. Failure of the leaves of the mesentery to fuse.
4. Trauma
5. Neoplasm
6. Degeneration of lymph nodes (11).

Usually omental dermoid cysts produce no specific symptoms. Roentgenogram and CT scans are helpful in suspecting the condition preoperatively. But the diagnosis can be confirmed only at surgery. Laparoscopic resection of the cysts can be done (12). At surgery, it is essential to

visualize both the ovaries. Evidence such as smoothness of the surface should be looked for to exclude its origin from the ovaries. Also the rest of the omentum should be examined for similar smaller cysts (13).

Teratomas with mature elements tend to behave in a benign manner, while those with embryonic tissue tend to metastasize. Histologic maturity, however, is not an absolute indicator of tumour behaviour since mature tumours may behave in a malignant manner(10).

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Author Information

Herman Fernando, MS(Gen. Surg.), DNB, MRCSEd

St. Isabels Hospital

Deepa Christy Rajan, MBBS

St. Isabels Hospital

Sudhir Duvuru, MBBS

St. Isabels Hospital

R. Kanthiah, MBBS, MS(Gen. Surg.)

St. Isabels Hospital