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Case Report

An Unusual Location of Epidermoid Cyst in Mesentry: Case Report with a Review of Literature

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Abstract: Mesentric cysts are rare, usually areasymtomatic, abdominal lesions. Epidermoid cysts developing in the mesentry are quiet rare and are common in the presacral region. We report a case in a 52 year old female presenting with mass per abdomen. Physical examination was done followed by specific investigations i.e, ultrasound and CT. The final diagnosis was made only after the laparotomy where the mass was excised and pathological examination was done. Epidermoid cyst should be considered as the differential diagnosis in investigation of any abdominal cyst.
Keywords: Mesentric cyst, Epidermoid cyst, Mesentry

INTRODUCTION

Mesentric cysts are rare abdominal tumors. These cysts may occur in any part of the mesentry from duodenum to rectum. Mesentric, omental and retroperitonial cysts are often considered as one group of entities, because of their same embryological origin. Mesentric cysts rarely cause abdominal symptoms and are mostly accompanied by physical finding of palpable, partly movable and painless abdominal mass. In symptomatic cases diverse nonspecific symptoms may occur. Most frequently presenting symptom is chronic abdominal pain and constipation.

Diagnostic imaging is helpful in making the diagnosis, although histopathologic examination is crucial in the final analysis of the lesion [1]. Therefore, surgical resection is indicated to establish a diagnosis and prevent eventual complications, such as hemorrhage, infection or rupture [2].

CASE REPORT

A 52 year old female presented with intermittent pain in right umblical region since 3 months. The pain worsened and was admitted to the emergency ward. On physical examination, a palpable, non-tender movable abdominal mass was identified in the umblical region. There was no history of any abdominal surgery/trauma in the past and family history was not significant.

Laboratory investigations were within normal limits. A clinical diagnosis of mesentric cyst was considered. Ultrasound examination was performed and it showed ill-defined lobulated mixed echogenic lesion with a few septations and wall calcification measuring 11.4x7.2x9.7 cms on the right side of the abdomen adjacent to the umblicus. Lesion showed an echoic areas likely necrosis within. Provisional diagnosis of Gastrointestinal Stromal Tumor (GIST) was made and patient was advised to undergo CT scan. On CECT probable diagnosis of GIST was made.

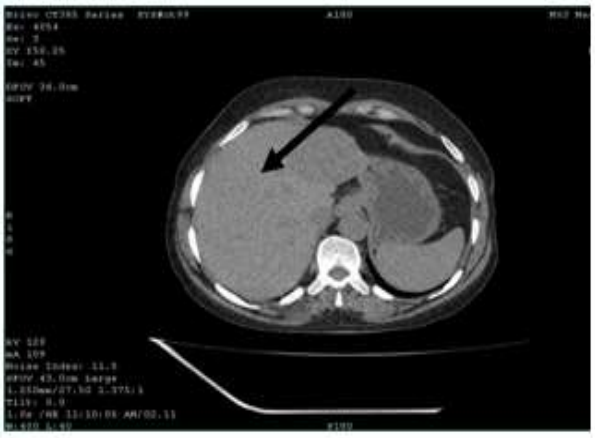

Fig. 1: Contrast enhanced computed tomography demonstrating a giant abdominal cystic lesion (arrow)

Patient underwent exploratory laparotomy and found a huge cyst attached to the mesentry. It was excised. The gross pathologic appearance was a huge thin walled globular mass with attached fat measuring 13x9x8.5 cm and was filled with the pultaceous material. No calcification, hair or bone elements detected.

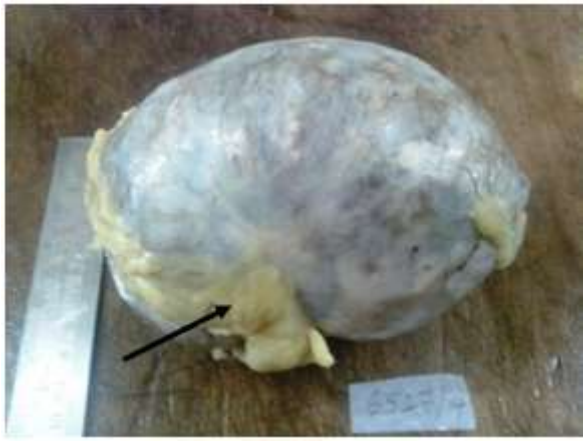

Fig. 2: Gross photograph showing a globular mass with attached fat (arrow)

Fig 3: Gross photograph of cut section of the mass showing pultaceous material (arrow)

Histopathological examination revealed that lesion was lined by stratified squamous keratinized epithelium and filled with keratin material. Subepithelial stroma showed lymphoplasmacytic infiltrate with foreign body type of giant cells at focal areas.

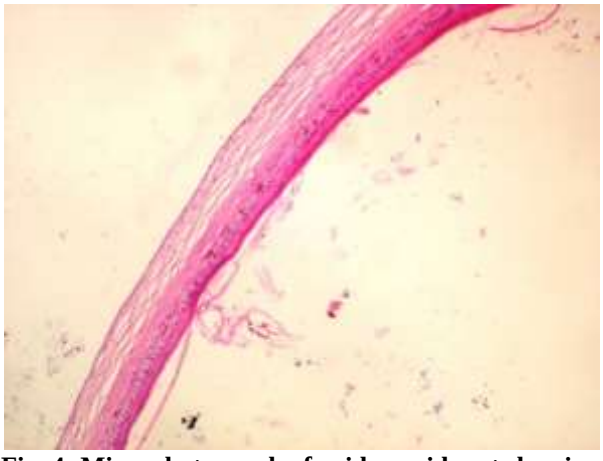

Fig. 4: Microphotograph of epidermoid cyst showing stratified squamous epithelium (H& E X 100)

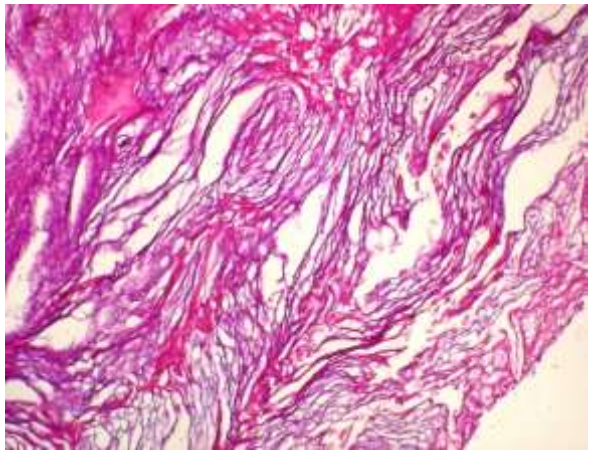

Fig. 5: Microphotograph showing keratin material in the cavity (H&E X 100)

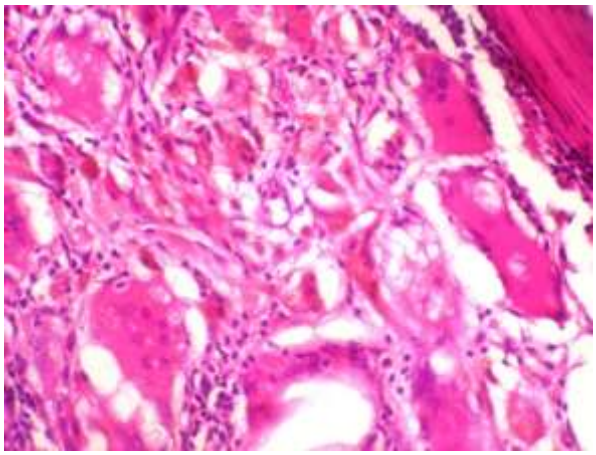

Fig. 6: Microphotograph showing granulomatous reaction (H&E X 400)

The findings were consistent with epidermoid cyst. Follow up of patient for 1 year was uneventful.

DISCUSSION

Mesentric Cysts are one of the rarest intra-abdominal tumors. The reported incidence ranges from 1/105,000 to 250,000 of hospitalizedsurgical patients [3]. Their rarity makes them difficult to diagnose both clinically and pathologically. Mesentric cysts occur in very small incidence, mainly later in life (fifth decade) and with female predominance [4, 5]. Our patient was also a 52 year old female.

Mesentric cysts are poorly understood clinical entities that are difficult to classify. Benevini, an Italian anatomist was the first person to detect a mesentric cyst in 1507 while performing an autopsy on an 8 year old boy [1]. Cysts that are present in the mesentry , omentum &retroperitoneum are comparable embroyologically and pathologically [2, 6]. Mesentric cysts can be lymphatic, mesothelial and enteric origin. They can also be dermoid cysts and epidermoid cysts.

An epidermoid cyst is a unilocular malformation, slow growing and formed by desquammation of the

epithelial cells. These lesions are commonly found in presacral region [7]. An uncommon location of an epidermoid cyst outside the presacral space was reported in an 11 year old boy by Hagr in the subdiaphragmatic region [8]. Horn described an epidermoid cyst arising from an accessory spleen of pancreas [9]. Benign extra adrenal epidermoid cysts mimicking adrenal tumors in abdominal imaging were reported by Grabellus [10]. Our patient presented with as a giant mesentric cyst.

To our knowledge epidermoid cyst in mesentry is an unusal location. In our patient, a huge mass was attached to the mesentry. In addition to mesenteric epidermoid cyst differential diagnosis considered include cystic lesions such as abdominal cystic lymphangioma that occur most commonly in the mesentry of the small bowel. Other cysts can be mesotheliomas, enteric cyst and dermoid cyst.

Symptoms are most frequently caused by compression effect of the cyst on the surrounding structures and rarely by the complications of the cyst like inflammation, abcess and rupture. Our patient became symptomatic due to local mass effect causing flank pain and enlargement of the abdomen.

Imaging with ultrasonography and conventional CT can determine the lesion as cystic or solid / complex or simple / unilocular or multilocular. In our case, initially an echogenic mass was detected by sonography. Ultrasound and computed tomography imaging did not allow us to unambiguously identify the lesion.

It is impossible to entirely rule out cystic malignancies therefore surgical resection and histopathologic examination is required for definitive diagnosis. So explorative laparotomy was performed in our case and histopathological diagnosis was offered.

Histological analysis of mesentricepidermoid cyst has a component of stratified squamous epithelium. Epidermoid cyst/ epithelial cysts have an epithelial lining and are thus true cysts. Lining produces fully matured keratinized cellular debris which fills the cavity of the cyst. Our case showed similar features on histology with granulomatous reaction.

Surgery is the treatment of choice for mesentricepidermoid cyst. In our case surgical approach was successful. Incidences of recurrence for mesentric cyst are less when compared to retropertonial and omental cysts [11]. Although they are not malignant, there are rare cases of malignant tumors arising from an epidermoid cyst [12]. In our case follow up for 1 year was uneventful.

CONCLUSION

Mesentric location of an epidermoid cyst is extremely rare. Surgery and histological analysis is the gold standard for the diagnosis and treatment of the epidermoid cysts. Successful treatment of a benign epidermoid cyst depends on early diagnosis, careful operative technique and adequate management of the underlying pathology.

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