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Case Report

Peritoneal dermoid cyst, rare location with no other primary focus: a rare case report

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ABSTRACT

Growth of dermoid cyst on parietal peritoneum without any prior history of ovarian dermoid cyst is considered a rare condition. The presentation of peritoneal dermoid cyst is vague and depends on the location of the cyst. We report a case of a 28-year-old young female who presented at our outpatient department with vague right upper quadrant pain and no other complaints, but upon examination a swelling was felt on the right upper quadrant, she was investigated radiologically, which reported as a peritoneal cyst, she was taken up for surgery. The cyst was excised and confirmed histopathologically as a dermoid cyst. Clinical progress was uneventful and postoperative recovery was excellent.

Keywords: Dermoid cyst, Peritoneum, Vague abdominal pain, surgery

INTRODUCTION

Histopathologically, developmental cysts can be divided into three groups: teratoid, epidemoid and dermoid. Dermoid cysts are seen in people of all ages, however individuals between the ages of 15 and 35 see them most commonly.[1] They can occur at anywhere in the body, though dermoid cysts are common, intraperitoneal primary dermoid cysts is a rare presentation.

CASE REPORT

Presenting a 28-year-old female, who came to the outpatient services at department of general surgery, Apollo hospitals, Chennai; with complaints of dull aching vague right hypochondrium pain since 2 months, not associated with nausea, vomiting, weight loss, jaundice, irregular menstruation, no previous history of abdominal or pelvic surgeries, but suffered an non displaced 7th, 8th right anterior rib fracture.

Patient was afebrile, conscious, coherent, with stable vitals, systemically no significant findings were noted, Per abdominal examination was also insignificant. Initially abdominal ultrasound found a 4×5 cm cystic lesion adjacent to the liver surface with no internal septations or calcification, intraperitoneal inclusion cyst for further evaluation. An impression of intra-peritoneal inclusion cyst was made which waranted further evaluation. Inconclusive ultrasound report prompted us to do CT whole abdomen, which revealed Thin walled non enhancing cystic lesion of 3.7×2.7×4 cm in the right hypochondriac region, beneath intercostal muscles at the level of 7th, 8th ribs, cyst is located between peritoneum and overlying abdominal wall muscle with no extension, intra-abdominal solid organs are normal, bilateral ovaries were normal (Figure 1).

As the patient was symptomatic and the size of the cyst was big, patient was offered surgery, laparoscopic approach was done, cyst was observed to be extending up to the intercostal muscles and containing paleaceous material, cyst was excised into and retrieved through an Endo bag (Figure 2).

Impression of dermoid cyst was made and was confirmed histopathologically, microscopic evaluation showed

fibro-collagenous cyst with stratified squamous epithelium with prominent granular layer and luminal keratinous material, adjacent tissue had mature adipose tissue with thick calcified blood vessels and histiocytic giant cells reacting to keratin with no immature elements (Figure 3). Confirming the diagnosis of mature cystic teratoma (dermoid cyst). Patient was well postoperatively and discharged and placed on regular follow up, to watch for recurrence.

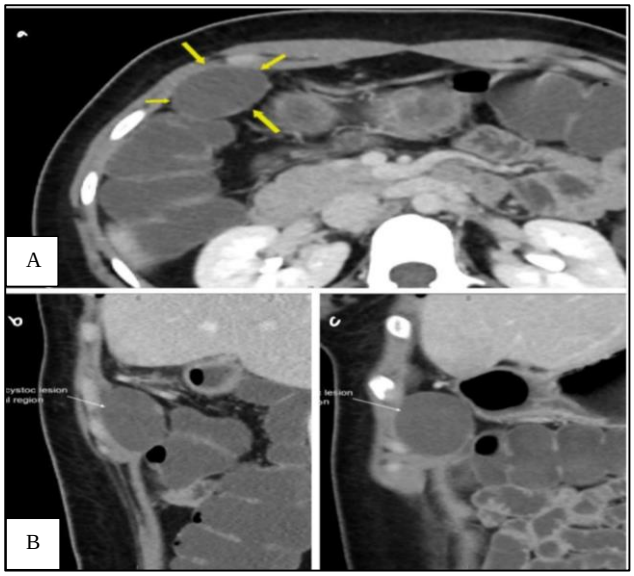

Figure 1 (A and B): Horizontal section of the abdomen showing cystic lesion in the right hypochondrium; coronal section of abdomen showing cystic lesion between the peritoneum and muscles.

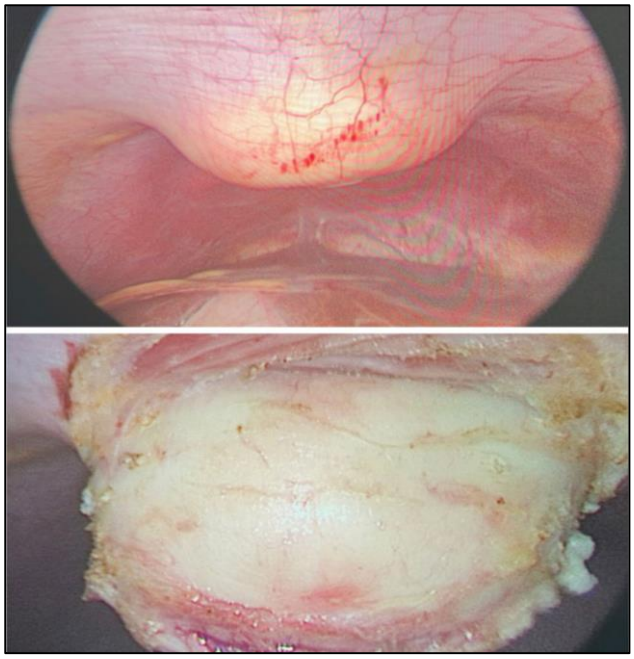

Figure 2: Laparoscopic images peritoneal dermoid cyst, located anterior to the liver surface, below the 7th and 8th ribs.

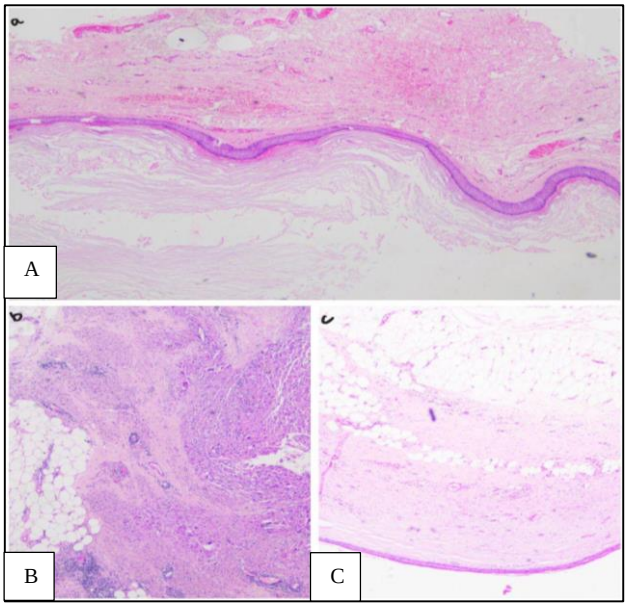

Figure 3 (A-C): Histopathology pictures showing stratified squamous epithelium on the cyst wall, mature adipose tissue, admixed with fibrous tissue admixed with foreign body giant cells which are reactive to the keratin and sebum.

DISCUSSION

A dermoid cyst develops when ectodermal parts are caught as per early stage conclusion.[1] These are harmless cutaneous formative irregularity which have delineated squamous epithelium as their coating, mature skin members on their wall, and kerstin and hair filled lumens.[2] Dermoid cysts are considered congenital, but not all of them can be detected at birth.[2] Genuine hamartomas are dermoid cysts, they form as a result of aberrant surface ectoderm sequestration and inclusion along the lines of skin fusion during embryologic development.[3,4] Dermoid cysts can occur anywhere on the body, but majority of the time, they are found in the head and neck region.[3] Literature search in PubMed, Google scholar, Cochrane library showed no case reports of peritoneal dermoid cyst. Hence, ours could be the first case to be reported to occur on the peritoneum without previous ovarian dermoid cysts. Treatment of dermoid cyst is surgical, it is being debated that, laparoscopic approach is standard treatment of dermoid cyst and provides many advantages over laparotomy.[5] However, a laparoscopic approach may result in chemical peritonitis due to the spilled contents of a ruptured dermoid cyst. If the dermoid cyst has undergone a malignant transformation, the procedure may be complicated in addition to chemical peritonitis, by tumour dissemination intraperitoneally.[5] Using an endoscopic retrieval bag to retrieve the specimen lowers the possibility of the cystic contents spilling during surgery.[6] As long as the peritoneal cavity is entirely cleaned, controlled intraperitoneal spillage of cystic contents doesn't increment postoperative morbidity.[6]

CONCLUSION

Though it is a rare presentation careful identification of the disease and necessary management is required.

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