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Case Report

Non-pancreatic retroperitoneal pseudocyst: a rare case report

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ABSTRACT

A retroperitoneal pseudocyst is usually pancreatic in origin. Non-pancreatic retroperitoneal pseudocyst has a very low incidence, primarily benign and usually asymptomatic. The absence of epithelial lining in the cyst wall characterizes the pseudocyst. The absence of epithelial lining in the cyst wall characterizes the pseudocyst. Here, we report a case of a 53-year-old male patient who presented to OPD with mass per abdomen and lower abdomen pain. The computed tomography scan of the abdomen and pelvis revealed a retroperitoneal cyst abutting the right psoas muscle. The patient underwent an open excision of a retroperitoneal cyst. Histopathological examination of the specimen showed a non-pancreatic retroperitoneal pseudocyst. It is a rare case; very few cases have been reported in the literature. One such case is reported here.

Keywords: Non pancreatic pseudocyst, Pseudocyst, Retroperitoneal mass

INTRODUCTION

A retroperitoneal pseudocyst is usually pancreatic in origin. The cyst wall is devoid of the epithelial lining which characterizes the pseudocyst. It is slow-growing and usually non-symptomatic till it attains a large size and compresses adjacent structures.[1] Retroperitoneal masses may be benign or malignant. These lesions could be single or multiloculated, cystic or solid and the contents may vary from serous to mixed or completely mucinous fluid. Some of the non-neoplastic lesions include the pancreatic pseudocyst, hematoma, non-pancreatic pseudocyst, urinoma and lymphocele. Neoplastic cystic lesions include cystic mesothelioma, cystic teratoma, epidermoid cyst, Mullerian cyst, mucinous cystadenoma, bronchogenic cyst, pseudomyxoma retroperitoneal and perianal mucinous carcinoma.[2] Mucinous cystadenoma is typically asymptomatic and found predominantly in women.[2,3] Non-pancreatic retroperitoneal pseudocyst is a rare case and only very few cases have been reported in the literature. One such case of non-pancreatic retroperitoneal tumor is discussed here.

CASE REPORT

A 53-year-old male patient presented to general surgery OPD with complaints of a mass in the right lower abdomen for 2 months associated with intermittent mild-grade non-radiating pricking type of pain. There's no history of evening rise of temperature/loss of appetite/loss of weight/ blood in stools, bowel and bladder habits were normal. Abdomen examination revealed an intrabdominal, retroperitoneal globular shape mass of size 8×8 cm in the right iliac fossa with well-defined margins and a smooth surface. A provisional diagnosis of mesenteric cyst was made and proceeded with CECT abdomen which revealed well encapsulated oval extraperitoneal cystic lesion in RIF anterior to right iliac vessels showing wall calcification and no organ invasion. Cystic schwannoma/ dermoid cyst/ enteric duplication cyst. MRI revealed well-defined ovoid thick-walled cystic lesion with few nodular calcifications and papillary projections along the walls of lesion in the right iliac fossa with its posterior aspect abutting right iliac vessels and iliopsoas muscle without obvious infiltration. Mucinous cystic neoplasm/ complicated mesenteric cyst.

The patient underwent excision of a retroperitoneal tumor and was sent for histopathology examination. Intraoperatively, an 8×8 cm size tumor was noted in the retroperitoneal plane; testicular vessels and vas deferens anteriorly adherent to the cyst wall was ligated and cut. Ureter, common, internal, and external iliac vessels were identified and preserved. Tumor found abutting the psoas muscle and iliac vessels.

Histopathological examination of the specimen revealed features of non-pancreatic pseudocyst with no evidence of malignancy features.

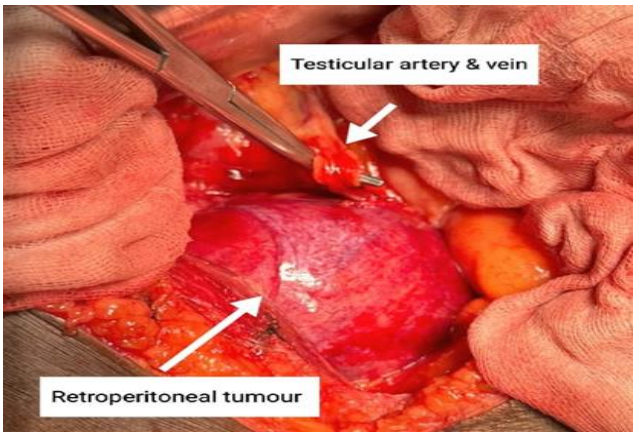

Figure 1: Intraoperative picture showing retroperitoneal tumour and testicular vessels.

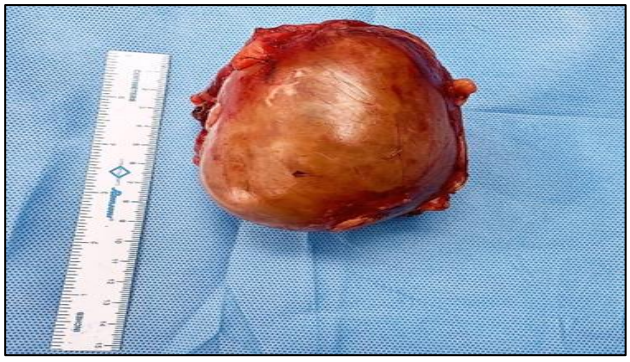

Figure 2: Retroperitoneal tumour (Complete excision with the capsule).

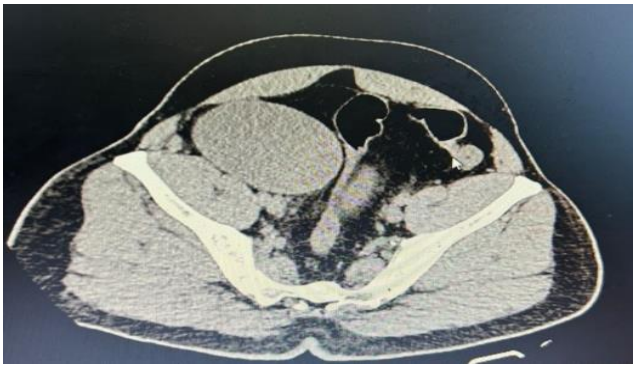

Figure 3: CT image of retroperitoneal tumour.

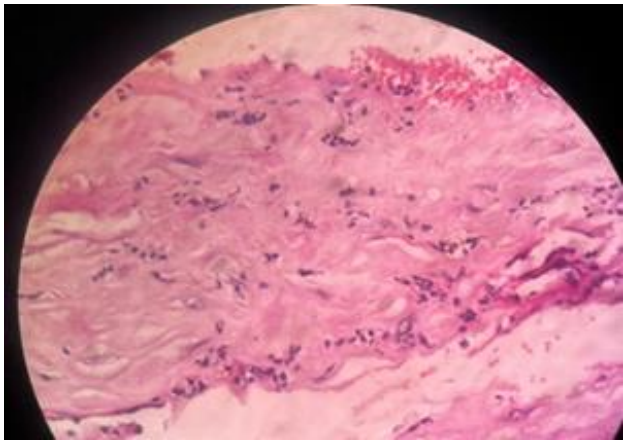

Figure 4: Histopathological image of pseudocyst.

DISCUSSION

Retroperitoneal cysts originate from the fatty areolar tissue present in the retroperitoneum and its origin is usually not associated with any other adjacent structures. The differential diagnosis for the retroperitoneal cysts includes benign or malignant lesions and can be differentiated with clinical history, examination and imaging and confirmed with histopathological examinations. These common differentials include mesenteric cyst, pseudocyst, enteric duplication cyst, lymphocele and mesothelial cyst; The most commonly occurring neoplastic cysts include cystic teratoma, epidermoid cyst, mucinous cystadenoma, cystic lymphangioma, and cystic degeneration of solid tumors. Most primary retroperitoneal mucinous tumors are malignant.[4] The pathogenesis of these retroperitoneal cysts remains unclear.

There are proposed theories existing only for retroperitoneal cystadenomas. One of the theories suggests that ectopic ovarian tissue seeding in the retroperitoneum is the etiology for the formation of cysts.[5] But ovarian tissues are uncommon finding in these lesions and there are similar cases that reported these lesions in male patients.[6-8] The other hypothesis states that the peritoneal lining invagination with multipotent mesothelial cells gets entrapped and undergoes mucinous metaplasia which formed into a neoplastic cyst.[9-11] The enteric duplication cyst may develop into a malignant cystic lesion.[12] The other hypothesis stated by the literature is that the teratoma develops into a retroperitoneal cyst.[13]

The cysts that are devoid of true epithelial lining are termed as pseudocysts.[14] A pseudocyst is commonly pancreatic in origin and usually peripancreatic in the region. The pseudocysts which are not arising from the pancreas are extremely rare and uncommon in the retroperitoneum. The non-pancreatic, non-parasitic pseudocysts arise from the omentum or the mesentery.[1] They usually contain serous fluid. The patients usually have non-specific symptoms. A large pseudocyst might

press the adjacent structures and cause symptoms like vomiting, abdomen distress or constipation. Abdomen examination may reveal a palpable freely mobile abdominal mass.[15] Similar to this, our patient had an abdomen mass freely mobile. The pseudocyst in our patient did not arise from the pancreas, omentum, or mesentery and is not associated with teratomas. This is a rare entity.

The radiological investigations, either ultrasonography or computed tomography can be used as a diagnostic tool. Pseudocysts can be uniloculated or multiloculated with fluid-filled cysts and have thick walls.[16] The long-standing cysts may get calcified and give the appearance of an eggshell. The definitive treatment of pseudocyst is surgical excision.[17] The cyst has to be excised to prevent any recurrence.

CONCLUSION

The non-pancreatic retroperitoneal pseudocysts are rare entities and are benign. The diagnosis is by radiological investigations preferably computed tomography. The mainstay treatment of these retroperitoneal pseudocysts is complete excision of the cyst with the capsule without remnant to prevent recurrence.

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