ORIGINAL RESEARCH PAPER

General Surgery

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Non Pancreatic, Pseudocyst, Adrenal

CASE OF NON PANCREATIC ADRENAL PSEUDOCYST

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ABSTRACT

Adrenal pseudocyst which is a very rare entity poses both a diagnostic and sometimes surgical challenge to the surgeons. The diagnosis becomes tougher as these pseudocyst are seldomly symptomatic. Pseudocysts are a very common entity related to pancreas. Whereas pseudocysts adrenal glands are rare and are usually asymptomatic. Histologically pseudocycts donot have an epithelium or endothelial lining and the wall is made up of fibrous wall. These usually follow after an episode of haemorrhage. Even if an adrenal origin is suspected on imaging, differentiation from other adrenal tumors like adrenocortical carcinoma, adrenocortical adenoma, pheochromocytoma, and other cystic adrenal masses may not be possible or even from pancreatic pseudocyst. **Case Report:** 45 year old male presented with left hypochondrium (LHC) soft cystic swelling with complaints of fullness and mild dull aching pain over that side along with right lower flank pain due to mid ureteric calculi. **Conclusion:** Though a rare entity, adrenal pseudocyst should be considered as a differential in LHC swelling after other possibilities have been ruled out. The imaging should be thoroughly studied in the preoperative period to know the positions of different major vasculature.

INTRODUCTION:

Pseudocysts are a very common entity related to pancreas. Whereas pseudocysts adrenal glands are rare and are usually asymptomatic. Histologically pseudocysts do not have an epithelium or endothelial lining and the wall is made up of fibrous wall. These usually follow after an episode of haemorrhage. Even if an adrenal origin is suspected on imaging, differentiation from other adrenal tumors like adrenocortical carcinoma, adrenocortical adenoma, pheochromocytoma, and other cystic adrenal masses may not be possible or even from pancreatic pseudocyst. Such cases pose an enigma for surgeons on imaging and are tricky handle on table.

Case Report:

A 45 year male presented with complains of left flank and abdominal pain and abdominal distension with palpable mass over left hypochondrium. The mass is soft, cystic, balloon like, does not move with respiration, non tender, non ballotable, non reducible, has well defined smooth margins, superiorly goes under the costal margins, inferiorly just above iliac crest, medially extending into epigastrium till midline and laterally in flank region and extending posteriorly over mid back region. Patient had this complain since 1 year. Pain was dull aching, intermittent, diffuse, non radiating, non referring, non debilitating, not associated with any aggravating factors and not relieved on taking any medications. Apart from this the patient had complain of right flank pain since six months which was intermittent, colicky, severe intensity especially in early mornings, sometimes radiating to right iliac fossa to groin, relieved on taking pain killers and anti spasmodic.

- Radiologically the patient first underwent ultra sonography which revealed "well defined uniloculated lesion on size 155x50x130 mm (535cc) involving pancreatic bed and abutting superior border of body and tail of pancreas. Lesion shows thick septations within it. A 9.4x2.1 mm calculi noted in mid to distal right ureter with dilated ureter in entire extent. Lesion is S/O pseudocyst of pancreas/ retroperitoneal space occupying lesion."
- CECT abdomen pelvis and CT urography (figure 1) gave "hypodense cystic lesion of size 112x72x152 mm in infrapancreatic region extending into left para colic gutter, lesion has few internal septations with post contrast peripheral rim enhancement, differential diagnosis of 1. cystic lymphangioma, 2. Mesenteric cyst, 3. Pseudocyst pancreas with right mid ureteric calculi. The lesion is causing peripheral displacement of large bowel, inferior displacement of left kidney and it's vessels and superior displacement of splenic artery."
- A fluid cytology of the cystic fluid was sent which read "very few small groups of benign spindle cells and plenty of macrophages, features are consistent with mesenteric cyst."
- The fluid was also sent for culture sensitivity showing no growth and biochemistry assessment showing 5.6 mg/dL protein and 100 mg/dL glucose.
- The histopathological report revealed part of adrenal gland attached to one side of cyst, no established epithelial lining of cyst wall identified. S/O pseudocyst of adrenal gland (figure 2 A and B).

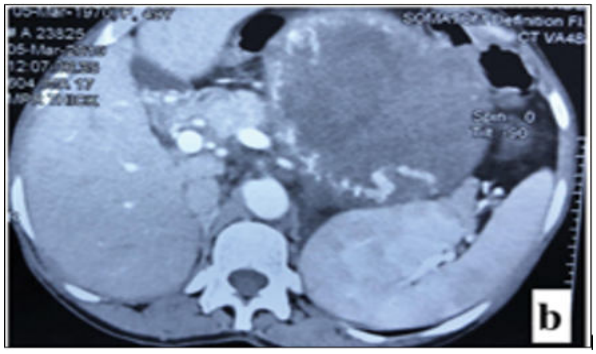
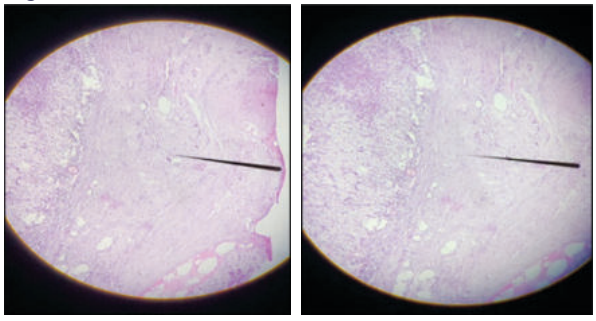


Figure 1



A **B**

Figure 2

Operative Findings:

- A DJ stent was inserted in the starting over left side with help of cystoscope.
- Stomach, pancreas and large bowel easily lifted and retracted away from the cyst.
- The cyst was deflated by carefully draining all the contents.

- On dissecting the cyst from kidney, we encountered that the left renal vein (straight arrow) was encircling the cyst along with lumbar vein (dotted arrow), these vessels were carefully taken care of during dissection and easily separated.(figure 3).
- The cyst was removed entirely with small slice of adrenal gland.
- Tansmesentric ureterolithotomy was done over right side with DJ stenting for right ureteric calculi.

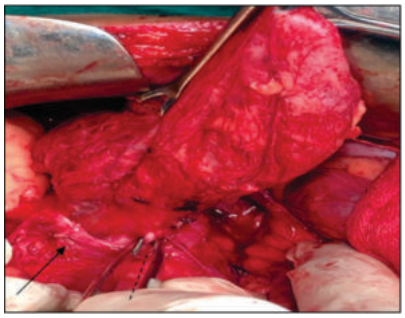


Figure 3

DISCUSSION:

Adrenal cysts are rare and the documented incidence varies between 0.064% and 0.18% in autopsy series. However, the rate of detection of adrenal cysts has risen dramatically due to the more frequent use of CT and MRI imaging studies. Adrenal cysts may occur at any age but most are found in the 3rd to 5th decades.

Histologically, cystic formations of the adrenals are divided into four groups: parasitic; epithelial (true cysts); endothelial (vascular cysts with an endothelial lining); and pseudocysts. There are also other more infrequent subtypes such as lymphangiomas, mesothelial cysts, dermoid cysts or cystic adrenal carcinomas. Adrenal pseudocysts are devoid of an epithelial or endothelial lining, arise within the adrenal gland and are surrounded by a fibrous tissue wall.

The true origin of adrenal pseudocyst remains a mystery. One theory suggests that these lesions result from an intra-adrenal hemorrhage caused by trauma, a sepsis event or some other form of shock. The initial injury leads to the development of a cavity with a scarred, fibrous lining that slowly enlarges over time. Another theory suggests that these lesions are true cysts that have lost their cellular lining because of the inflammation and bleeding within the cyst.

The surrounding vasculature should be familiarised preoperatively to avoid complications.

CONCLUSION:

Adrenal pseudocyst usually present asymptomatic and are present in a region where there are multiple common diagnosis possible thus, provides a diagnostic challenge. It may also pose a surgical challenge as there are surrounding major vasculature structure present in the area. Ergo a thorough evaluation of the patient clinically, radiologically and being vigilant surgically can help easy tackling of such cases.

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