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Case Report

Giant Adrenal Pseudocyst- A Case Report

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ABSTRACT

Adrenal pseudocysts are uncommon lesions which are asymptomatic and have an estimated incidence of 0.064% to 0.18%.Cystic lesions of adrenal may vary from cystic malignant neoplasms to pseudocysts. Adrenal pseudocysts are asymptomatic and are discovered incidentally during radiography or at autopsy. They lack lining epithelium and are surrounded by fibrous tissue. Though the adrenal pseudo cysts have characteristic radiographic appearance, it is difficult to distinguish it from cystic neoplasm of adrenal. We report a case pseudocyst of left adrenal in 30 years female presenting with left lumbar pain

Key words: Adrenal, Pseudo cyst, Cystic malignant neoplasm

INTRODUCTION

Adrenal pseudocysts are rare asymptomatic lesions which mimics the cystic neoplasms of adrenal gland. The estimated incidence of adrenal cysts is 0.064% to 0.18%. [1] Adrenal pseudo cysts represent 5.7% of adrenal incidentalomas. Rupture of the cyst or intracystic haemorrhage can produce acute abdomen. [2] Intracystic hemorrhage may lead to low haemoglobin &hematocrit levels. Patients usually have normal hormonal profiles and electrolytes except in conditions where the pseudocyst is present in functional tumors. In such cases patients may have hypoadrenocorticism. [3] In the literature 130 pseudo cysts have been reported so far. [4] We report a case of adrenal pseudocysts presenting as incidentalomas in 30 years female.

CASE REPORT

A female patient of age 30years attended urology department with chief complaint of left lumbar pain since 10 days. There was no history of fever, dysuria, frequency, urgency, haematuria, pedal edema or dyspnea. On examination her general condition was fair, per abdomen was soft & non tender. External genitalia was normal with normal urethral meatus. Haematological investigations reveal haemoglobin- 11.3g/d, total count-11,700/mm^3 with differential count showing neutrophils- 61%, lymphocytes- 28%, eosinophils- 0.4% & monocytes- 0.7%, platelet count-236000/mm^3. Her serum creatinine was 0.89mg/dl, serum urea - 22.6mg/dl. Urine examination revealed very few epithelial cells. Urine culture for sensitivity showed no growth.

Ultrasound abdomen showed normal size and echo pattern of the right kidney with good corticomedullary differentiation. Two calculi were noted in the lower calyx of right kidney, largest measuring 3mm. Left kidney was measuring 9.7x4.3cm with normal echo pattern and good

corticomedullary differentiation. Well defined exophytic cystic lesion arising from the upper pole of left kidney was noted with maximum dimension of 9.1x7cm and multiple septations (maximum thickness 5mm) showing calcifications.

CT scan of whole abdomen shows 3mm calculus in the middle calyx of the right kidney. Left kidney was normal. Left adrenal gland enlarged measuring 10x7.2cms with thin walled non enhancing cystic mass with few septae and wall showing calcification. Under general anaesthesia left adrenal cyst excision was done and specimen was sent for histopathological examination. Microscopic examination reveal fibrocollagenous cyst wall with foci of calcifications and congested blood vessels. Few foci show adrenal parenchyma. There was no lining epithelium for the cyst. Due to the above features histopathological diagnosis of pseudo cyst of adrenal was made.

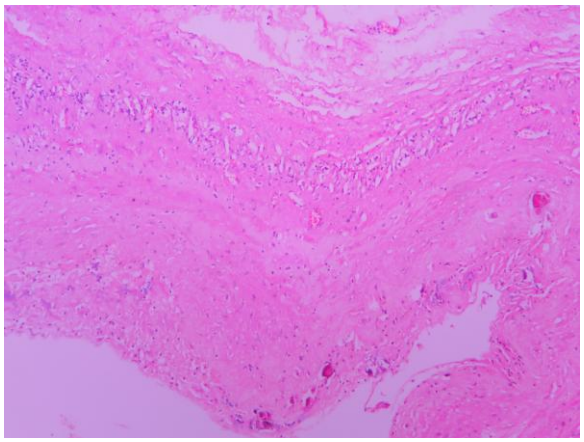

Figure 1: Fibro collagenous cyst wall with compressed adrenal parenchyma and occasional foci of calcification (H&E,X100)

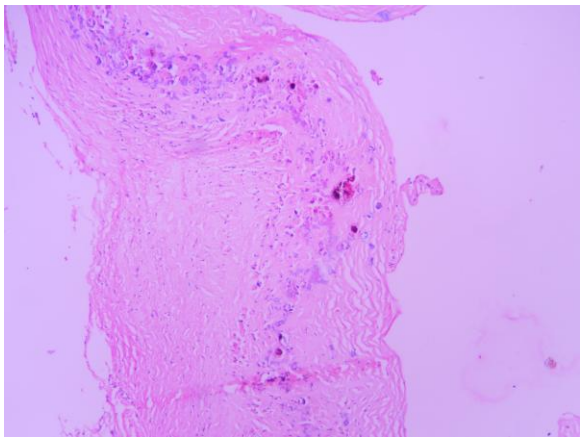

Figure 2: Fibro collagenous cyst wall with foci of calcifications (H&E, X100)

DISCUSSION

Adrenal cysts are uncommon lesions which occur frequently in 4th& 5th decades. [5] Size usually range from very small microscopic to 12cms in diameter and contain fluid. [6] They are usually asymptomatic, but larger cysts may produce palpable abdominal mass, nausea, vomiting (gastrointestinal symptoms) and vague abdominal pain. [7] Rupture of cyst or intracystic haemorrhage or infection can produce acute abdomen. [8] Intracystic haemorrhage may lead to low haemoglobin and haematocrit levels. Patients usually have normal hormonal profiles and electrolytes except in conditions where the pseudocyst is present in functional tumors. In such cases patients may have hypoadrenocorticism. [9]

Few studies have reported association of adrenal cysts with diseases like polycystic kidney disease, Klippel Trenaunay syndrome, Beckwith Weidman syndrome and abdominal aneurysm. Radiology helps in confirming the diagnosis of cystic nature of the lesion. In some cases lesion has mixed cystic and solid areas with foci of calcification. This heterogenous tissue causes misdiagnosis of adrenal tumor on radiology.

Adrenal cysts are histologically classified into non neoplastic and neoplastic cysts. Non neoplastic cysts include endothelial cyst, lymphangiomatous cyst, epithelial cyst, parasitic cyst and pseudocyst. 39% of cystic lesions are constituted by pseudocyst. Neoplastic cyst includes adrenal cystic carcinoma. Pseudocysts lack epithelial or endothelial lining and wall made up of fibrous tissue. Adrenal pseudocysts may present with unusual variants like-ectopic thyroid tissue, intracystic fat, features of dermoid cyst and myelolipomatous metaplasia. [10]

Two theories have been proposed to explain their pathogenesis. First one suggests that pseudo cysts are formed due to intra adrenal haemorrhage caused by trauma. This leads to formalin of cavity lined by cicatricial fibrous tissue. Second

theory suggests that these lesions are true cysts but due to inflammation and haemorrhage into the cyst they have consequently lost the lining epithelial cells. [11]

Treatment depends on signs and symptoms of the lesion. Pseudo cyst usually presents when their size is more than 5cms. Aspiration is recommended for the cysts larger than 3.5cms. Malignancy is excluded if the aspirate is clear fluid. For the non-functional adrenal cysts which have a round well defined borders, size less than 6cms, thickness of the wall is less than 3mm & clear aspirate treatment is conservative management with aspiration & follow up of the patient with interval computerized tomography (CT) scan. Cyst should be excised if it is greater than 6cm, with central /peripheral calcification, thickened wall, haemorrhagic aspirate & non homogenous nature of the cyst on CT. [12]

CONCLUSION

Adrenal pseudo cysts are uncommon lesion. Cystic adrenal lesions range from benign cysts to cystic malignant neoplasm. Imaging techniques can be helpful in diagnosing adrenal cysts. Adrenal pseudocysts larger than 6cms have risk of developing malignancy compared to the cysts smaller than 3cm. Treatment depends upon the size and symptoms of the cyst. Conservative treatment is sufficient in pseudocysts lesser than 3cms and surgical excision is required for the pseudocysts larger than 5cms.

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