Original Research Paper

Volume-8 | Issue-6 | June-2018 | PRINT ISSN No 2249-555X

Pathology

ADRENAL PSEUDOCYST – A CASE REPORT WITH REVIEW OF LITERATURE.

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ABSTRACT Adrenal Cyst are rare and usually incidental finding. The patient presents with abdominal pain and palpable mass. We report such a case in a 57-year-old female who came with complaints of abdominal pain and discomfort, vomiting since 5 months. CT scan revealed - Right Adrenal Cyst and histopathological diagnosis was made as Right Adrenal Pseudocyst was made.

KEYWORDS : Pseudocyst, Adrenal, Cyst .

Introduction

Adrenal pseudocysts are rare benign cystic lesion. They are masses that originate within adrenal cortex or medulla and are enclosed by fibrous wall.

The pathogenesis is still not clear but it is said to occur due to repeated episodes of trauma, infection or bleeding.

They are most common in women in between 30 to 60 years of age.

It was described as adrenal cyst by Viennese anatomist Greiselius in 1670.

Case Report

A 57 year old female presented with complaints of abdominal pain past 6 months along with fever since 1month.

CT Abdomen and Pelvis- Large 11x10x5 cm non enhancing thin walled cystic lesion with peripheral wall calcification in right supra-renal region from which right adrenal gland cannot be visualized separately.

Clinical diagnosis of Adrenal epithelial cyst was made.

Treatment- Surgical excision was done

Grossly we received a cystic mass measuring 11.5x11x6cm in size.

External surface was well Capsulated, bosselated and congested with fibrous band.

Cut Section of the Cyst was unilocular with thickened wall measuring 0.3cm, hemorrhagic fluid oozed out and yellow friable areas were also noted.

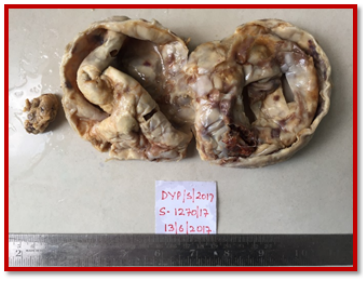

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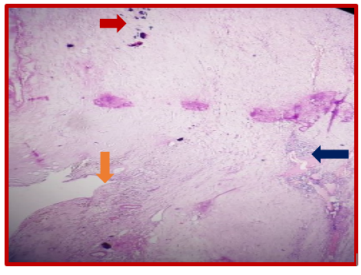
Figure 1:- Gross showing Unilocular cyst with thickened wall and yellowish friable areas seen.

Mircoscopy revealed a cyst wall composed of dense fibro-collagenous tissue along with normal compressed adrenal tissue, areas of dystrophic calcification, moderate lympho-plasmacytic infiltrate & hemorrhage seen both in low and high power.

Nerve bundle, mature adipocyte were also noted. As this cyst wall was unilocular, there was no epithelial or endothelial lining which rules out adrenal epithelial or endothelial true cyst so diagnosis of Adrenal Pesudocyst was made.



Figur 2:- H&E showing cyst wall(➡) containing haemosedrin laden macrophages , calcification(➡)and chronic inflammatory cells(➡).(low Power view)

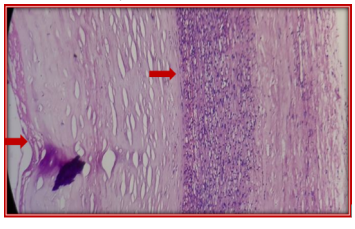


Figure 3:- H& E showing cyst wall along with compressed adrenal tissue(High Power View)

Discussion

Adrenal Pseudocyst was first discovered by Greiselius in 1670 in a post mortem description (Ref 1).

In 1903, Doram attributed the first case adrenal cyst to Greiselus (Ref 1).

They are rare benign cystic lesion which are non-functional & asymptomatic (Ref 1).

Pathogenesis of the adrenal pseudocyst is still not clear it may be due to cystic degeneration of primary adrenal neoplasm, degeneration of vascular neoplasm, malformation and hemorrhage of adrenal vein into

adrenal glands repeated trauma or infection(Ref 2).

Total 300 cases of adrenal cyst have been reported, out of which fewer than 100 were of pseudocyst (Ref 3).

They are more common in women & typically found between 30 and 60 years of age as in our case patient was a 51year old female (Ref 1).

They are usually asymptomatic but larger cyst may give rise to lumbar pain, vomiting gastro intestinal discomfort or abdominal mass as in our case cyst was measuring 11x11cm(Ref 1)

Patients usually present as abdominal pain & discomfort same as our case (Ref 4).

The classification of adrenal cyst was initially given by Abenhouse and modified in 1966 by Foster into four groups (Ref 1):-

A) Endothelial
B) Pseudocyst
C) Epithelial
D) Parasite Cyst

Hodges and Ellis also proposed a classification of adrenal cysts -as true cyst which included endothelial and epithelial lining whereas pseudocyst do not have any cellular lining(Ref 5) .

History and examination of patients should be done , laboratory investigation to include blood count, liver function test, renal function test, serum cortisol, aldosterone, calcium and urine catecholamine's ,5HIAA and metanephrines are required these are mostly in limit similar to our case (Ref 2).

They can rarely cause adrenal hypofunction, Cushing's syndrome or phaeochromocytoma(Ref 2).

The gold standard for diagnosis of adrenal mass is CT scan, similar to our case where adrenal mass was detected by CT and given as Adrenal Epithelial Cyst(Ref 2).

Grossly pseudocyst are large uniloculated cyst composed of dense fibrous connective tissue having thick wall along with red brown contents comprising of fibrin and necrotic debris(Ref 1).

Microscopically these are cystic lesion consisting of thick fibrous tissue wall devoid of any lining resulting as a result of hemorrhage within normal gland similar to our case(Ref 1).

Surgical excision is treatment of choice for all lesions above 5 cm or suspicion of malignancy(Ref 2).

Tumor less than 4 cm should have repeat CT scan at 3 months (Ref 2).

Conclusion:-

Adrenal Pseudocyst are rare cystic lesion whose symptoms are related to size, local pressure of cyst.

CT scan along with histopathology is gold standard for diagnosis of the lesion.

Surgical excision is preferred.

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