

## Case Report

### Giant Adrenal Pseudocyst: A Rare Case Report

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**Abstract:** Adrenal pseudocyst is a rare condition and most of them are non functional and asymptomatic. Large pseudocyst may cause pressure effect and have compressive symptom to adjacent organ. Adrenal pseudocyst are devoid of lining epithelium and have a fibrous wall only. Here author reports a case of 36 year old female patient with a giant adrenal pseudocyst having pain in left hypochondrium and low grade fever. CT scan revealed a large cystic mass in left lumbar region. Her all laboratory test are within normal limit. It was excised and diagnosis made as adrenal pseudocyst

**Keywords:** Adrenal, Pseudocyst

#### INTRODUCTION

Adrenal pseudocyst are rare cystic masses that arise from the adrenal gland which are usually non-function and asymptomatic [1]. The symptomatic occasionally may be due to large size, adrenal dysfunction and infection. Adrenal cyst first described in 1670 and typically presented with abdominal pain or palpable mass. Adrenal pseudocysts consist of a fibrous wall without an epithelial or endothelial lining [2]. The author reports a case of 36 year old female patient with a giant adrenal pseudocyst presenting with pain in left hypochondrium region and low grade fever.

#### CASE REPORT

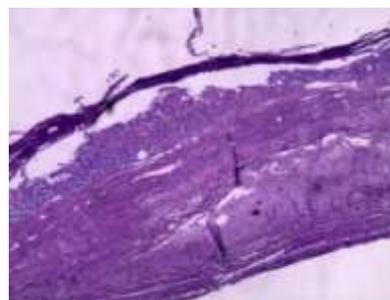
36-year old women, who had an intra-abdominal cystic mass presented with slight heaviness and pain in left lumbar region for months. She also had history of mild fever and loss of appetite. On abdominal palpation a clearly defined mass occupied the left lumbar and hypochondrium region and was tender. A CT scan was performed which showed a large cystic mass in left lumbar region measuring 124x91x153 mm with septation and calcification in the wall. Superiorly it was abutting the tail of pancreas and splenic hilum and inferiorly it was abutting the upper pole of left kidney. The CT diagnosis was made retroperitoneal cyst. Laboratory investigation showed a total leukocyte count of 10,100/mm<sup>3</sup>, alkaline phosphate -634 u/l and gamma glutamyl transpeptidase of 183 u/l. The hormonal examination, serum catecholamines, cortisol and aldosterone were all within normal limits. Fasting blood sugar, renal function and liver function were within normal limits. Tumour marker (carcinoembryonic antigen, carbohydrate antigen 19-9 and alpha-fetoprotein) were level also within normal limits.

It was excised surgically and sent for histopathological examination. Gross examination showed an opened up cystic soft tissue piece measuring 11x9.0cm with outer surface was covered with fibrous

tissue and foci of congestion. Wall thickness varied from 0.1 to 0.5 cm. Microscopic examination showed a cyst wall composed of fibro-connective tissue without any lining epithelium. At one end peripherally compressed adrenal tissue was seen within the wall along with congested blood vessels. Symptoms resolved after cyst removal. Patient was discharged after one week of post-operation and advice to attend the surgical outpatient clinic after two months for follow-up. In the last follow-up his investigation are within normal limit and patient was doing well.



**Fig. 1: CT scan- Show large cyst in left side of abdomen**



**Fig. 2: H&E- Section of cyst wall show only thin fibrous lining and adrenal gland compressed at one side**

## DISCUSSION

Adrenal cyst are rare with incidence varies between 0.064% to 0.18%, among them pseudocyst are second (39%) most common lesion [3]. However, the rate detection of adrenal cyst has risen dramatically due to the more frequent use of CT and MRI imaging studies in recent years [4, 5]. Adrenal cyst may occur at any age but most are found in the 3<sup>rd</sup> to 5<sup>th</sup> decades of life [6]. In some series, a female preponderance has been noted for unknown reasons.

Origin of adrenal pseudocyst is still unknown. One theory suggests that these lesions result from an intrenal haemorrhage 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.

Histologically, cyst formation of the adrenals are divided into four group: parasitic, epithelial ( true cyst), endothelial ( vascular cysts with an endothelial lining); and pseudocyst ( without lining epithelium ) [7]. There are also other more infrequent subtypes such as lymphangiomas, mesothelial cysts, dermoid cysts or cystic adrenal carcinomas. Adrenal pseudocyst are devoid of lining epithelium, arise within the adrenal gland and are surrounded by a fibrous tissue wall only.

Most adrenal cysts are asymptomatic because of their small size. In the case of large cysts, symptoms occur in relation of their pressure to adjacent organs. Adrenal cyst more then 10 cm. are rare. The diagnostic dilemma may occur due to other large cystic lesion like pancreatic pseudocyst etc [8]. The three most prominent clinical features are : a dull pain in the adrenal area, gastrointestinal symptoms and a palpable mass. They seldom cause adrenal hypofunction, cushing's syndrome or pheochromocytoma. Acute abdomen or tender mass may occasionally be found, when intracystic haemorrhage, rupture or infectin occurs [9].

The differential diagnosis of adrenal pseudocysts includes splenic, pancreatic, hepatic and renal cysts, as well as mesenteric, retroperitoneal cysts and urachal cysts. An exact diagnosis is clinically important in large lesion because adrenal incidentalomas larger than 5.0 cm carry an increased risk of adrenal malignancy [8].

Treatment of adrenal cyst is determined by size and the symptoms related to the mass [10]. Surgical excision is indicated by the presence of symptoms, a suspicion of malignancy and an increase in size, or the detection of a function adrenal cyst. Surgical treatment may not be necessary for small asymptomatic cyst less then 5 cm. and patient may be treated conservatively with aspirated alone and after that monitor for 18 months.

## CONCLUSION

An adrenal pseudocyst is an uncommon clinical finding and is even rarer when it is giant-sized and infected. Surgery is required for symptomatic cases in order to relieve the symptoms and in cases of uncertain diagnosis. Radiological and clinical features of the adrenal pseudocyst are nonspecific thus histopathological is in order to establish a definitive diagnosis.

## REFERENCES

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