Fauxing Epithelial Adrenal Cyst: A Case Report

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Abstract

Adrenal cysts are rare and varied in histology. Currently they are diagnosed more commonly due to improved imaging modalities. Large adrenal cysts can compress the adjacent viscera to produce symptoms and it is not possible in all cases to accurately diagnose these cysts preoperatively. Here in, we report a case of right adrenal cyst diagnosed preoperatively as Hydatid cyst of right lobe of liver and the correct diagnosis was made at laparotomy.

INTRODUCTION

Alban H.G Doran gave credit to Viennese physician Gresellus who described an adrenal cyst in 1670.[1] Though they are reported in autopsy series but their actual incidence is much higher.[2] Their classification evolved from Terrier and Lecene who first classified them in 1906, to Foster who gave the current classification of four types in 1966.[3] They are found commonly as incedentalomas of adrenal glands during investigations for other causes. These cysts are asymptomatic unless they have achieved considerable size. They can present with varied symptoms but pain is the most common one.

CASE REPORT

A 19 year old female presented to our surgical clinic with a gradually progressive swelling in right upper abdomen for last 6 months, it was associated with mild loss of appetite and except for mild dragging pain during exertion there were no associated symptoms. General physical examination was with in normal limits. Per abdomen examination revealed a 15x13 centimetres globular, non tender swelling in right hypochondrium with well-defined margins and tense cystic in consistency. The swelling was mobile on respiration. The renal angle was empty and the swelling was not ballotable. The rest of the systemic examination was normal. Routine haematology and biochemistry were normal. Ultrasonic scan revealed a hydatid cyst and CECT abdomen and pelvis showed a huge cystic lesion replacing most of the right lobe of liver suggesting the possibility of the right lobe of the liver (figure 1,2,3,4). The patient was explored and laparotomy showed a normal right and left lobe of liver. The cystic mass was originating from right adrenal gland and was removed with meticulous dissection. Histopathology confirmed it to be an adrenal cyst.

Figure 1

Figure1- CT abdomen showing a cyst seems to be in right lobe of liver

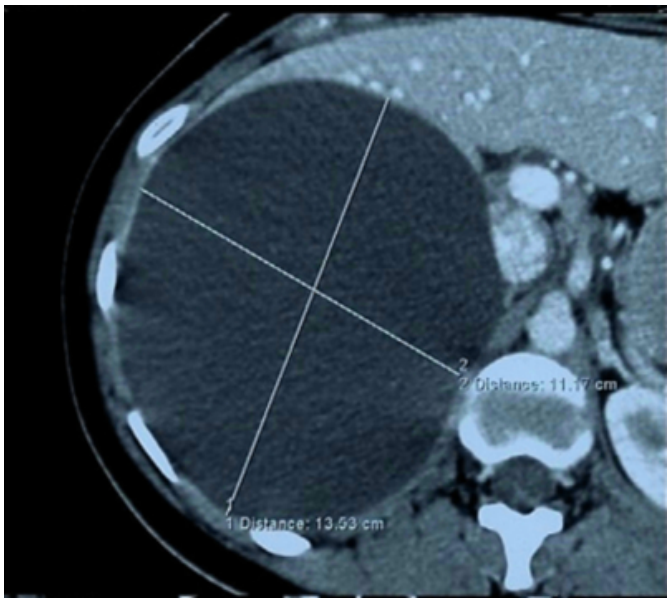


Figure 2

Figure2,3-Reconstruction of abdominal CT showing the extent of the adrenal cyst

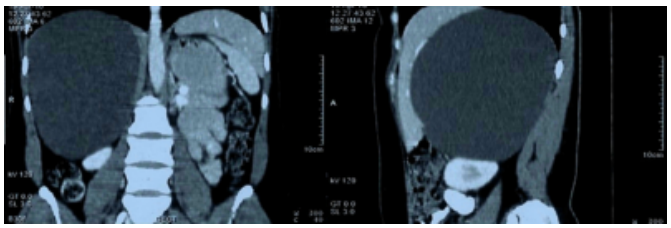
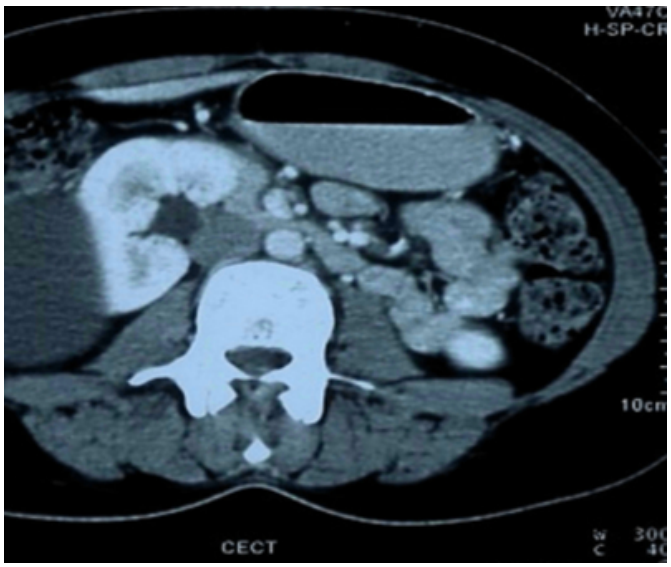


Figure 3

Figure4-CT abdomen showing proximity of cyst to right kidney



DISCUSSION

Adrenal cysts are uncommon and represent histopathologically a heterogeneous group of lesions.[4] In autopsy series their incidence reported is 0.064% to 0.18% however due to increased use of excellent imaging modalities like CT and MRI their presence is noted more frequently with an incidence of 5.4% in clinical case series.[2] They are found in fifth and sixth decade of life and females are affected three times more than males.[5] Bilateral cysts are seen in 8% of cases and are associated with polycystic renal disease, Klipel-Trenaunay-Weber syndrome, Beckwith Wiedemann syndrome, abdominal aortic aneurysm and rarely with pregnancy.[3,6] 7% of Adrenal cysts are found to be malignant.[7] The biggest described cyst in literature is 45cm.[8]

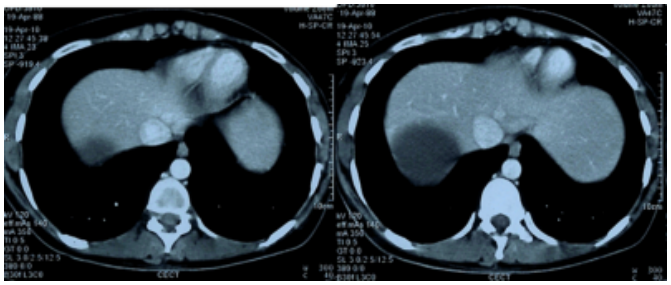
In 1966 Foster while describing 220 cases of adrenal cysts, classified them on the basis of histopathology into following types endothelial cysts (45%), pseudocysts(39%), epithelial(9%) and parasitic (7%).[3]Beside these mesothelioma and carcinoma can present as adrenal cysts. Pseudocysts and endothelial cysts are considered as variants of vascular cyst. Endothelial cysts are further classified as lymphangiomatous or angiomatous.[6] Pseudocysts lack a definite cellular wall which is composed of fibrous tissue.Epithelial cysts are less commonly reported in literature.[6]

Adrenal cysts can be found incidentally in 32% of patients while being investigated for other cause.[9] These are usually less than 10 cm. As they grow in size they can produce symptoms by compressing the adjacent viscera. Most commonly they present with abdominal pain(35%).[9] Two cases are reported where patients had presented with acute abdomen and shock.[10] A single report describes acute massive retroperitoneal haemorrhage due to rupture of adrenal cyst.[11] Gastric outlet obstruction with hypertension is also described in a patient of giant pseudocyst of adrenal gland which was relieved after decompression of cyst.[12] Improved imaging modalities resulted in detection of increased number of adrenal cyst with accuracy of CT and MRI being 81%-100%.[13]The anatomy and proximity of viscera to adrenals can result in misdiagnosis of this condition.Even False negative findings can be seen in integrated FDG PET Scan in adrenal metastatic lesions with haemorrhage and necrosis, and small sized nodules.[13] Before operation it is possible to identify the cause of trouble as the cystic disease but the exact nature is identified only by laparotomy or histopathology examination.[14]

In our case as the cyst was huge and was reaching up to the diaphragm it appeared to be originating from liver and the patient was diagnosed as unilocular hydatid cyst of right lobe of liver(figure5,6). It was only at laparotomy that the true diagnosis was revealed to be as a huge adrenal cyst. It had grown to such a extent to displace the right lobe of liver. Histopathology confirmed it to be a epithelial cyst of adrenal gland which is rare among adrenal cysts. So even if imaging strongly points towards the diagnosis of hydatid cyst, conformation with serology for hydatid disease with ELISA should be done.

Figure 4

Figure5&6: CT abdomen sections showing adrenal cyst abutting the diaphragm



CONCLUSION

Here in we concluded that serological testing should be done to confirm hydatid disease even if imaging are srongly supportive of hydatid cyst.

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