Supra renal cyst misdiagnosed as hepatic cyst: A rare presentation

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Abstract

Supra renal cyst are rare presentations. Though they can be diagnosed on CECT but sometime can be misdiagnosed as hepatic cyst as in our case. We present a case of a large adrenal cyst presented as a lump abdomen for which it was confused as simple liver cyst.

Keywords: Renal cyst; CECT; Hepatic cyst

1. Introduction

Cystic lesions of the adrenal gland are rare. They must be considered in differential diagnosis of an abdominal mass. Doran to Greiselius, a Viennese physician, in 1670 reported the first case of adrenal cyst. [1]. Its incidence in autopsy series varies between 0.064% and 0.18% [2]. Most cases are incidentally diagnosed either on CECT or MRI. We present a case which was misdiagnosed on CECT but confirmed by surgery and histopathology.

2. Case report

A 20 year old young female who came to us with a lump in right hypochondrium with no other significant finding. On investigating the patient, USG abdomen revealed a thick walled echogenic cyst of size 10 X 15 cm in right lobe of liver. To confirm we had a CECT done, which showed a well-defined hypodense lesion with peripheral thick rim calcification abutting the segment VI and VII of liver (Figure 1)

![Figure 1](image.png)

Figure 1 CT image showing cyst occupying right lobe of liver.

We planned to explore the patient. On exploring via right subcostal incision a cyst of size 10 X 15 cm was found to arise from the right kidney with no right adrenal gland seen separately (Figure 2).
Figure 2 peroperative photograph showing large adrenal cyst.

On cutting the cyst brown colored fluid came out (Figure 3). (Figure 4) Histopathology revealed cyst with adrenal tissue having extensive calcification, a benign adrenal cyst. Post-operative recovery was uneventful.

Figure 3 punctured cyst with brownish fluid.

Figure 4 histopathology showing the adrenal cortex and medulla.
3. Discussion

Around 250 adrenal cysts have been previously reported in the literature. [3] Most cysts are asymptomatic and are discovered incidentally. An estimate of true incidence, based on post-mortem studies, is 0.06% [4]. They have a wide distribution, with a peak incidence of symptomatic cases in the 4th-5th decades and a female: male ratio of about 3:1 [5].

With the advent of modern imaging tools like CT and MRI the incidence of adrenal cyst detected incidentally has risen. However these imaging techniques still pose a challenge to distinguish between the benign and malignant causes [4]. Adrenal cysts may present as abdominal discomfort and flank pain due to their size and displacement of adjacent viscera. Plain radiograph may show peripheral curvilinear calcification. USG and CT are the modalities of choice for the adrenal cyst. Surgery is a routinely advised, either trans-abdominally if the cyst is large, or via a loin approach, the latter approach avoids peritoneal contamination. Alternatively cyst can be percutaneously aspirated under USG or CT guidance [6]. We explored the patient via sub costal route due to its size and preoperative diagnostic dilemma.

4. Conclusion

Adrenal cyst are a rare presentation. A large cyst in a young female may have many differential diagnosis like hepatic, renal and ovarian pathology. Along with them adrenal cyst should always be kept as one of the possibility.

Early surgery should be performed to prevent complication such as infection, rupture and hemorrhage.

Compliance with ethical standards

Authors’ Contribution

PV, SG and SM carried out the literature search and prepared the draft manuscript, PM and MR collected the data and compiled it, PV and BS designed the study and helped in initial editing, RA, BS and PV conceived the study and edited the final manuscript. All authors have read and approved the final manuscript for submission.

Disclosure of conflict of interest

The authors declare that there are no conflicts of interests.

Statement of informed consent

Written informed consent was obtained from the patient.

References