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A RARE CASE OF GIANT RETROPERITONEAL LEFT ADRENAL CYST

Surgery

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ABSTRACT

Adrenal cysts are rare and Adrenal cysts were first reported by Greaseless in 1670 . Most small cysts are asymptomatic. Bigger cysts may become palpable as occurred in our patient or cause symptoms from pressure on adjacent structures. Some cysts present with acute abdomen after hemorrhage, infection, or rupture .Our case is a 54 year Male patient operated for giant retroperitoneal benign left sided adrenal cyst.

KEYWORDS

INTRODUCTION

Retroperitoneal cysts of Adrenal origin are rare and occur in 0.06–0.18% in autopsy findings[2]. The incidence has increased with increasing use of abdominal imaging. They are more common in women and between 30 and 60 years of age . Hormonal secretion, more common in solid adrenal tumors, has been documented in adrenal cysts. About 7% of adrenal cysts are malignant with malignancy seen more in cysts bigger than 5 cm.Adrenal secretory tests are mandatory in solid adrenal tumors but may prove important in adrenal cysts. This includes 24 h urinary metanephrines and 17-hydroxycorticosteroids[8,9]. Asymptomatic adrenal cysts less than 4 cm in size are usually managed conservatively when not secretory and not rapidly expanding. Surgical excision is recommended for cysts >5cm diameter because of the risk of malignancy .Adrenal cysts are classified as pseudocysts, endothelial cysts, parasitic cysts, or epithelial cysts.A benign adrenal cyst is a rare lesion of the adrenal gland that makes up less than 1-2% of all adrenal incidentalomas[3,4] . The overall prevalence is about 0.06-0.18%[1] . Most benign adrenal cysts are discovered incidentally with mild symptoms[5]. Because of the large potential retroperitoneal space, adrenal cysts are clinically asymptomatic in their early stages like other primary retroperitoneal tumors. The onset of clinical symptoms often indicates that the mass has grown in size or that complications have developed, such as this case. In addition to non-specific abdominal distension, abdominal pain is also one of the most common symptoms. When the abdominal viscera and blood vessels are compressed, there may be clinical manifestations such as nausea, vomiting, discomfort after eating, constipation, and lower extremity edema . A unique danger of adrenal cysts is that impacting the patient's abdomen may cause acute abdomen or even shock if the cyst ruptures[7] . In our case, the cyst had enlarged and produced a “mass effect”, resulting in nonspecific abdominal distension. However, due to the large space of the retroperitoneum, its symptoms were still mild. In addition to clinical symptom evaluation, an endocrinological examination is also an important part of disease management[5,6]. It is necessary to ascertain whether the cyst has abnormal endocrine activity. Benign adrenal cysts are generally non-functional lesions[1,2] .

Case

A 54 year male patient presented with complaints of non-specific abdominal distension,pain and discomfort associated with constipation . No any complaints of palpitations , headache or sweating .Abdomen was distended with a non-mobile palpable lump of approximate size 30 x 20 cm over entire left abdomen. Lump got gradually enlarged over a duration of 10 years. Patient's CECT - Abdomen and pelvis was done suggestive of a thick walled cystic lesion in left side of retroperitoneum with calcification of wall with size 203 x 198 x 306 cm originating from left adrenal gland and displacing stomach,pancreas , spleen ,left kidney and entire bowel towards right side . Plasma free metanephrines and 24- hour urine metanephrines were normal . Then the patient had pre-operative investigations done and optimised for Surgery. Patient underwent Exploratory Laparotomy for same and Abdomen was opened through midline incision. A large mass lesion was found of approx. size 30 x 20 cm appearing to originate from left adrenal gland in retroperitoneal region and was occupying left side of abdomen with dense adhesions with Pancreas,spleen,stomach greater curvature, splenic flexure of colon and mesentery of left sided colon and small bowel as well. Adhesiolysis was done , Retroperitoneal mass lesion was mobilised and about 6 Litres of yellowish fluid was aspirated from the lesion . Entire mass lesion was removed and abdominal tube drain was kept .Patient recovered well in post-operative period and started taking soft diet from 3rd Post-operative day, Abdominal- tube drain was removed on Post-operative day 6 and patient discharged on Post-operative day 7 . Histopathology report came with findings suggestive of Benign left adrenal retroperitoneal cyst .

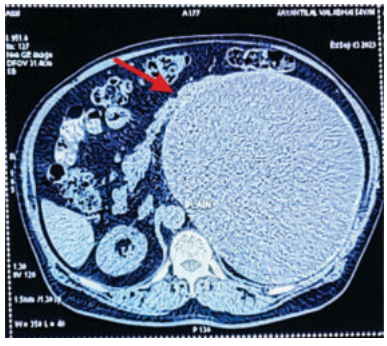

Figure 1- CECT Abdomen showing Cross -section view with Red arrow indicating Giant retroperitoneal left adrenal cyst that is displacing structures mainly Bowel , left kidney and pancreas towards right side .

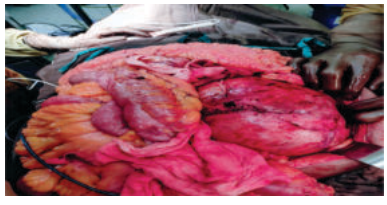

Figure 2- Intraoperative pictures with yellow arrow indicating giant retroperitoneal left adrenal cystic lesion .

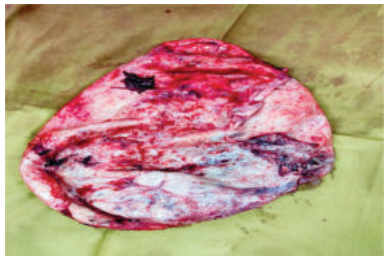

Figure 3- Excised Specimen of entire Giant retroperitoneal left adrenal cystic lesion .

DISCUSSION

Adrenal cysts have traditionally been classified into endothelial, pseudocyst, epithelial, and parasitic cysts based on histopathology[10] . In most cases, adrenal cysts are endothelial cysts, which can be classified as angiomatous or lymphatic cysts. Angiomatous

endothelial cysts are extremely rare . CD31, CD34, Fli-1, and Factor VIII are positive markers of endothelial cells[11] . It is possible to distinguish the lymphatic type by the immunopositivity of D2-40 and the negativity of CALRTININ, as well as WT1[9,12] . The final pathological diagnosis depends on the immunopositivity of ERG (vascular endothelium) and the negativity of D2-40.

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