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A Large Adrenal Hemorrhagic Cyst: A Case Report

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Abstract: ***Introduction*: Cystic lesions of adrenal gland are rare. They are usually asymptomatic or may rarely present with abdominal pain or fullness. Optimum management of adrenal cysts still remain controversial. Small cystic adrenal tumors can be managed conservatively by laparoscopic decortication or marsupialization, but larger cysts should be treated by total or partial adrenalectomy. *Case Report*: A 31 Year old female admitted with history of abdomen pain in right lumber region. On examination pallor present, Approximately 12x10 cm lump was palpable in right lumber region. CECT ABDOMEN AND PELVIS suggestive of cystic lesion in right suprarenal location? adrenal cyst ?cystic pheochromocytoma.24 hour urine metanephrine was 0.12mg/24h and VMA was 3.5 mg/24h. Patient was operated with right adrenal cyst excision. Intraoperatively, approx.20x15 cm right adrenal hemorrhagic cyst was found which was adherent to adjacent structure. Patient was discharge with full recovery. *Discussion*: Incidence of adrenal cyst ranging from 0.064 to 0.18%. They are usually asymptomatic and are discovered incidentally. Terrier and Lecene in 1906 first classified adrenal cysts into hemorrhagic, endothelial, congenital retention, cystic adenomas, and parasitic types. Ultrasonography, CT, and MRI studies have been very effective in recognizing cystic lesion. Biopsies or surgery are usually performed to rule out malignancy. Management of adrenal cysts are open or minimally invasive. Conservative management is for patients with uncomplicated/asymptomatic cysts <5 cm. The limitation of our study may seem to be lesser number of case. *Conclusion*: Preoperative evaluation plays an important role to rule out other differential diagnosis. Proper investigation including CT or MRI is essential for defining adrenal cystic lesion and differentiating from cystic lesion of adjacent organs Surgery is the treatment of choice in symptomatic cases as well asymptomatic cases with a large diameter or increasing dimensions during follow - up or with any anomaly of adrenal hormones.***

Keyword: Adrenal Hemorrhagic Cyst, Case Report, Adrenal Gland, Cystic Lesion, Adrenalectomy

1. Introduction

Cystic lesions of adrenal gland are rare. Differential diagnoses of adrenal cyst include pseudocysts, echinococcal cysts, hemangiomas, cystic pheochromocytomas, adrenal hemorrhagic cyst and lymphangiomas. They are usually asymptomatic or may rarely present with abdominal pain or fullness. Optimum management of adrenal cysts still remain controversial, owing to its low incidence. Small cystic adrenal tumors can be managed conservatively by laparoscopic decortication or marsupialization, but larger cysts should be treated by total or partial adrenalectomy.

2. Case Report

A 31 Year old female admitted with history of abdomen pain in right lumber region since 7 days. Previous history of covid 19 infection was present one year back. On physical examination PR 80/min, BP 110/70 mm hg, pallor present, oxygen saturation was 94 at room air. On examination, Approximately 12x10 cm lump was palpable in right lumber region right sided air entry was mild reduced. In investigations, Hb was 3.6 g/dl, WBC count was 12000 /ml, platelet count was 364000/ml. CECT ABDOMEN AND PELVIS suggestive of a approximately 12x11x17 cm cystic lesion in right suprarenal location ?adrenal cyst ?cystic pheochromocytoma.24 hour urine metanephrine was 0.12mg/24h and VMA was 3.5 mg/24h which was normal in range. HRCT thorax suggestive of right side mild pleural effusion. Patient was operated with explore laparotomy with right adrenal cyst excision under general anesthesia. Intraoperatively, approx.20x15 cm right adrenal hemorrhagic cyst was found which was adherent to right dome of diaphragm, bare area of liver, 2nd part of duodenum and with inferior vena cava less than 180 degree. Right kidney was enclosing in hemorrhagic cyst. Post operative period was uneventful and patient was discharge on post operative day 6 with full recovery.

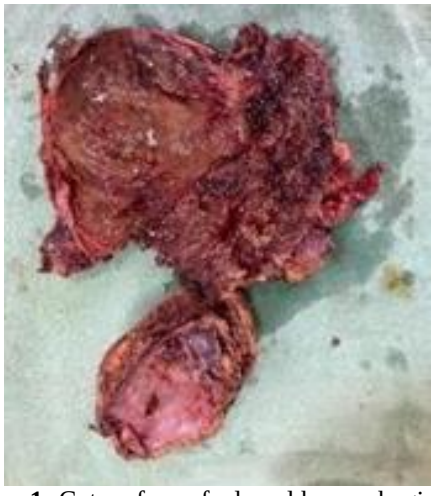

Figure 1: Cut surface of adrenal hemorrhagic cyst

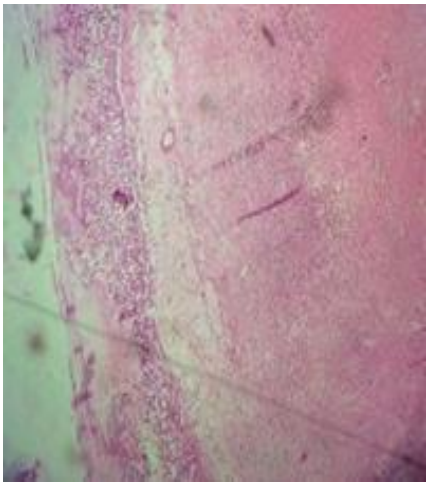

Figure 2: Histology of adrenal hemorrhagic cyst

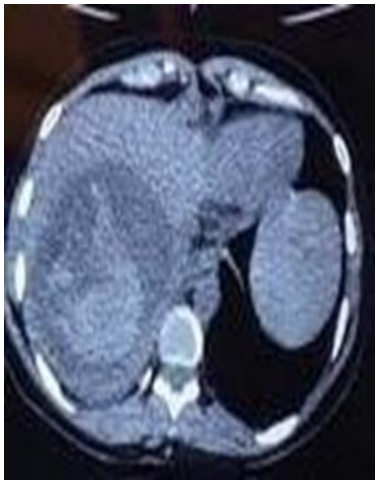

Figure 3: CT ABDOMEN show adrenal hemorrhagic cyst

3. Discussion

Incidence of adrenal cyst ranging from 0.064 to 0.18% [1, 2]. These rare lesions are usually benign, mostly occur in third and sixth decade of life [1, 3]. The female to male ratio in is 3: 1 [4]. The case presented is in accordance with the literature on incidental findings of adrenal cysts and pseudocysts, that is, most diagnoses are made by chance during routine abdominal imaging examinations or resulting from pelvic or abdominal trauma [5]. It is not easy to make diagnosis of adrenal hemorrhage, especially due to its unspecific presentation, generally associated to other clinical complications. They are usually asymptomatic. Approximately 39% of the cases may present with large mass lesion and pain due to hemorrhage or cyst rupture. Rarely (9% of cases) adrenal cysts may be associated with hypertension [6]. Initially, the echo - graphic parameter made us thought of an amebic hepatic abscess, since Sub - Saharan Africa is an endemic region of amebiasis [7]. However, repeated and progressive blood loss verified by hemoglobin dropled the surgical team to choose an invasive procedure, the ultrasound - guided percutaneous biopsy revealingserous and sanguinolent exudate. Considering the dubious interpretation, clinical worsening, abdominal distention and pain, an axial CT of the abdomen was decisive for diagnosing the right adrenal hemorrhagic cyst (1Terrier and Lecene in 1906 first classified adrenal cysts into hemorrhagic, endothelial, congenital retention, cystic adenomas, and parasitic types [8]. Assessment of hormonal levels, Ultrasonography, CT, and MRI studies have been very effective in recognizing cystic lesion. When suspicious, biopsies or surgery are usually performed to rule out malignancy. Management of adrenal cysts are open or minimally invasive. Surgery is usually indicated in functional cysts, malignant or potentially malignant cysts, symptomatic cysts, asymptomatic cyst of size more than 5 cm and those patients with uncertain follow up. Conservative management is for patients with uncomplicated and/ or asymptomatic cysts <5 cm.

4. Conclusion

An adrenal hemorrhagic cyst case in which surgical resection was a safe option leading to a good outcome was reported. Preoperative evaluation plays an important role to rule out other differential diagnosis. Proper investigation including CT or MRI is essential for defining adrenal cystic lesion and differentiating from cystic lesion of adjacent organs Surgery is the treatment of choice in symptomatic cases as well asymptomatic cases with a large diameter or increasing dimensions during follow - up or with any anomaly of adrenal hormones.

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