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Adrenal pseudocyst: An unusual abdominal lump

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ABSTRACT

Adrenal pseudocysts are rare cystic masses that arise from the adrenal gland and which are usuallynon-functional and asymptomatic. Adrenal pseudocysts consist of a fibrous wall without an epithelial or endotheliallining. We report a case of a young woman with a voluminous abdominal mass revealed by a left hypochondrium pain. Histological examination revealed an adrenal pseudocyst. Surgery is required for symptomatic cases in order to relieve the symptoms and in cases of uncertain diagnosis.

Keywords: adrenal gland, pseudocysts.

INTRODUCTION

Adrenal cysts are rare. They represent 0.064-0.18% in the autopsy series and fewer than 500 cases have been reported in the Western literature [1]. However, the rate of detection of adrenal cysts has increased dramatically in recent years representing approximately 5% of the adrenal lesions of incidental discoveries.

We report an observation of a patient, operated for a large abdominal mass, whose histological analysis concluded a pseudocyst of the adrenal gland.

MATERIAL AND METHODS

Clinical case :

This is a 31-year-old patient with no specific pathological history, apart from a notion of contact with dogs, presented for pain of the left hypochondrium with gravity without radiation without other digestive or extradigestive signs associates, evolving for three months in a context of

apyrexia, asthenia and unencrypted weight loss. Physical examination showed the presence in the left hypochondrium of an oblong renitous mass about 7 cm long, movable relative to the surface plane and fixed relative to the deep plane without inflammatory signs, the rest of the somatic examination was unusual. The biological check-up was normal. Abdominal ultrasound showed an hypoechoic left hypo-renal formation with hyperechoic edema with discreet posterior reinforcement, non-vascularized at the doppler, measuring 73 * 55mm, of undetermined fluid or tissue nature, the adrenal location of which was probable. The abdominal CT before and after injection of contrast agent demonstrated the presence in the left inter-spleen-renal formation of a coarsely rounded, well-defined formation with a quasi-totally calcified wall with a heterogeneous fluid content, the seat of unreinforced tissue areas after injection of contrast medium and measuring 62X57mm in diameter. This formation occurs in contact with the left kidney and spleen without signs of invasion (Figure 1a, 1b and 1c). Hydatic serology was not performed nor hormonal assays performed. Exploratory Laparotomy showed a partially calcified cyst located between the inferior pole of the spleen, the left kidney and the exophytic pancreas, about 9 X 6 X 6 cm long, without other cystic localizations. The cyst wall was cystectomized and the residual cavity was drained. The anatomopathological examination of the excision showed a wall made of a fibrous tissue with calcifications and ossifications in places without any individualized coating , joined to the adrenal parenchyma. It is not seen an antithetic or proliferative membrane, concluding with a pseudo-cyst of the adrenal gland. The surgery was simple. The patient was well with a three month follow-up.

RESULTS AND DISCUSSION

Adrenal cysts are rare. They represent 0.064-0.18% in autopsy series and fewer than 500 cases have been reported in the Western literature [1]. However, the rate of detection of adrenal cysts has increased dramatically in recent years, as imaging progresses, accounting for about 5% of adrenal lesions of incidental discoveries [2]. Adrenal cysts can occur at any age, but most occur between the 3rd and 5th decades. [3] They predominate in women for unknown reasons [4] and are often unilateral. Histologically, cystic formations of the adrenal gland are divided into four groups: parasitic (hydatic), epithelial (true cysts), endothelial (endothelial-coated vascular cysts) and pseudo-cysts (as in our observation) 7]. There are also other more subtypes such as lymphangiomas, mesothelial cysts, dermoid cysts or cystic adrenal carcinomas.

Adrenal pseudo-cysts represent approximately 80% of the adrenal adrenal mass [8,9]. They are devoid of epithelial or endothelial coating, appear in the adrenal gland and surrounded by a fibrous tissue wall.

Most adrenal cysts are asymptomatic because of their small size [10]. When they are bulky, they may be responsible for abdominal pain or vomiting related to compression of the organs. Exceptionally, they may be the cause of arterial hypertension whose mechanism is poorly understood [5, 10, 7]. Our patient had pains in the left hypochondrium with an enormous mass clinically palpable without the notion of hypertension during the follow-up period.

The reported incidence of malignancy in adrenal cystic lesions is approximately 7% [12].

Imaging modalities such as ultrasound, CT and MRI [13] have diagnostic sensitivities of 66.7, 80 and 100%, respectively. However, a diagnosis of preoperative confirmation of a large adrenal cyst may be difficult because of the narrow limit and adherence to neighborhood organs.

Standard radiographs show calcifications in 10% to 15% of cases as was the case in our case [10, 7].

On the CT scan, most pseudo-cysts show limited round or oval masses with fluid density, but the

CT characteristics of pseudocysts are more complicated than simple cysts due to complex components such as septos, blood and the soft tissue components. The cyst wall shows occasional calcifications.

Magnetic resonance imaging (MRI) is the best way to visualize intracystic components. Moreover, MRI is particularly sensitive for the determination of adrenal origin. In some cases, this differentiation is difficult to establish even by MRI, especially since these lesions can coexist [8, 9].

Differential diagnosis of adrenal pseudocysts includes splenic, hepatic and renal cysts, as well as mesenteric or retroperitoneal cysts, uraquid cysts and solid adrenal tumors. An accurate diagnosis is clinically important in a large lesion because adrenal accidents of more than 5 cm [12] carry an increased risk of adrenal malignancy.

The treatment of adrenal cysts is determined by the size and symptoms related to the mass.

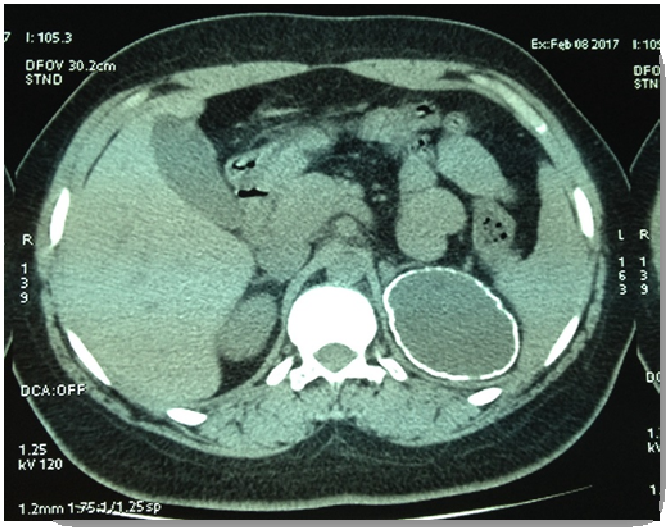
Surgical excision is indicated in the case of a symptomatic or bulky tumor, in case of complication (haemorrhage, rupture and infection), in case of suspicion of malignancy or the detection of a functional adrenal cyst [5, 11]. Surgical treatment may not be necessary for small asymptomatic lesions, as most cysts are mild [12].

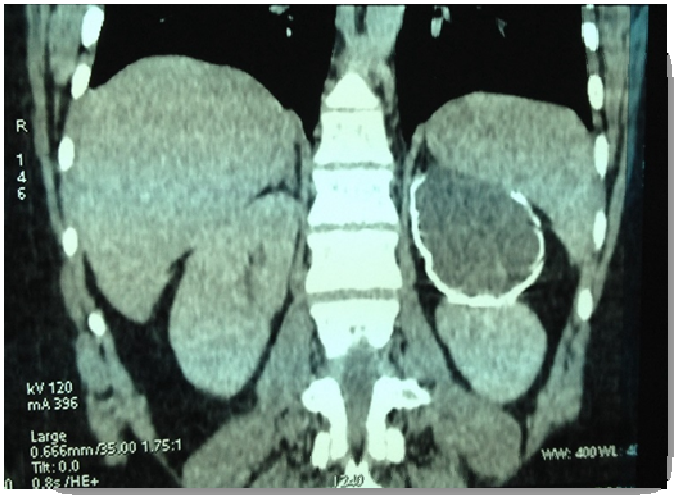
If the adrenal lesion is diagnosed as a simple non-functional cyst, the patient can be treated conservatively with a single aspiration aspiration which allows a cytological and biochemical study to be performed. In the case of large abscesses, where the probability of rupture is increased , transcutaneous drainage should be avoided as it may increase the risk of microbial release [14].

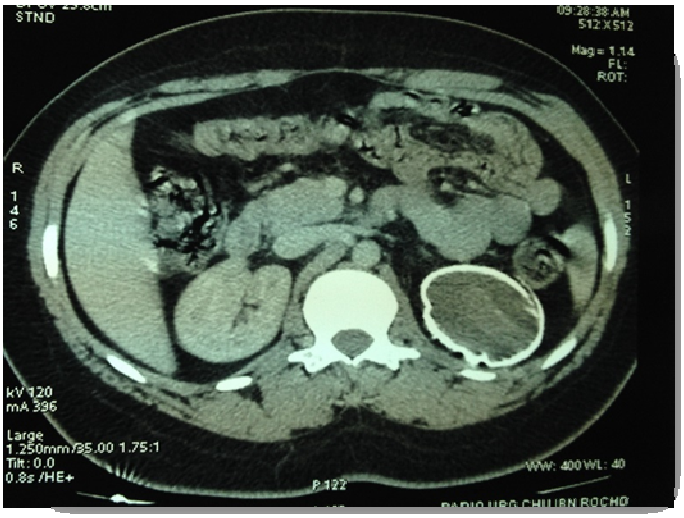
CONCLUSION

A pseudocyst of the adrenal gland is rare and is even more rare when it is giant. Surgery is necessary for symptomatic cases to relieve symptoms and in cases where the diagnosis is uncertain. Its radiological and clinical characteristics are not specific, so histopathological examination is essential for a definitive diagnosis.

Figures: Scannographic appearance suggestive of an inter-spleen-renal hydatic cyst







Conflicts of interest :

The authors do not declare any conflicts of interest.

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