ECRONICON OPEN ACCESS

EC CLINICAL AND MEDICAL CASE REPORTS

Case Report

Left Quadrant Abdominal Pain Leads to Discovery of Adrenal Myelolipoma

Safae Lanjeri*, Oumaima Mesbah, Omar El Aoufir and Laila Jroundi

Emergency Radiology Department, Ibn Sina University Hospital, Faculty of Medicine and Pharmacy of Rabat, Mohamed V University, Rabat, Morocco

***Corresponding Author:** Safae Lanjeri, Emergency Radiology Department, Ibn Sina University Hospital, Faculty of Medicine and Pharmacy of Rabat, Mohamed V University, Rabat, Morocco.

Received: October 04, 2024; **Published:** November 08, 2024

Abstract

We present the case of a 57-year-old patient who presented with left flank pain and whose CT and MRI diagnosis revealed radiological semiology typical of an adrenal myolipoma; the postoperative histological study confirmed the diagnosis and the clinical evolution was favorable.

Keywords: *Adrenal Myelolipoma; Adrenal Tumor; CT; MRI*

Case Report

Our patient male, 57 years of age, with no family or personal past history, presented with left flank pain that had been growing increasingly worse over a three week period. Contrast-enhanced Computed Tomography (CT) revealed a large suprarenal 8 cm well circumscribed mass, exerting mass effect on the kidney and the spleen with an average density of -70 Hounsfield unit (HU) (Figure 1). Magnetic resonance imaging (MRI) showed a hyperintense, predominantly fat-containing lesion on T2 weighted images, arising from the right adrenal fossa, displacing the right kidney inferiorly. On the fat-suppressed MRI sequence, signal loss was more apparent than on the out-of-phase sequence, confirming the diagnosis of an adrenal myelolipoma over adrenal adenoma, with no sign of hemorrhage (Figure 2). After intravenous (IV) gadolinium administration no contrast enhancement was seen. Biochemical parameters of the patient were in normal limits. Catecholamines were normal in 24h urine collection examination. The patient was treated with surgical resection of the mass and the follow-up pathology report confirmed an adrenal myelolipoma (Figure 3). The patient is currently disease free and undergoing routine follow up.

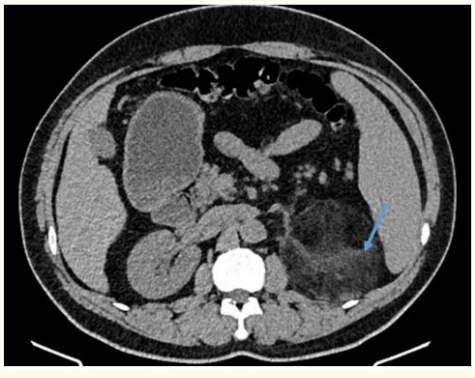

Figure 1: *CT of the abdomen demonstrating a large left adrenal mass containing a large amount of low.*

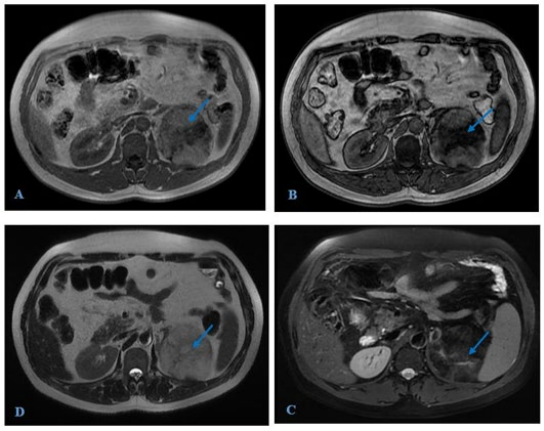

Figure 2: *Left adrenal mass on MRI: on axial T1-weighted in-phase image (A) lesion is heterogenous hyperintense, on T2-weighted image (B) hyperintense and on T1-weighted out-of-phase image (C) signal void areas are seen and on fat-suppressed image (D) the signal of the mass is suppressed almost totally.*

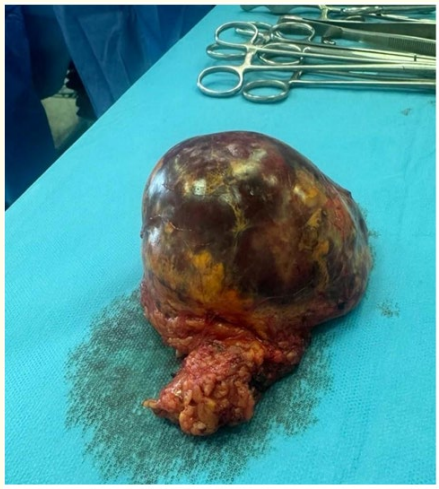

Figure 3: *Intraoperative picture showing a large suprarenal mass.*

Discussion

Adrenal myelolipoma was first described by Gierke in 1905, and the term myelolipoma was coined by Oberling in 1929 [1]. Myelolipomas are rare benign tumors made up of adipose and hematopoietic tissue in varying proportions, that commonly occur in the adrenal glands unilaterally, but it has been rarely reported on both sides in the literature [1]. They can rarely appear in other sites and have been reported in the mediastinum, spleen, kidney, bones, thorax, and nasal cavity. They generally occur from fifth to seventh decade of life, and there is no gender preference. Even though adrenal myelolipomas are usually associated with obesity, hypertension and diabetes mellitus, most cases are asymptomatic, with incidental detection of this tumor on cross-sectional imaging or at autopsy. When exceeding the diameter of 8 cm, they are called "giant adrenal myelolipomas". The most common symptoms are abdominal pain, hematuria and abdominal mass,

occuring due to increasing size and compression of surrounding structures, or if it presents with hemorrhagic rupture. Myelolipomas most commonly tends to be non-functional; nevertheless, 10% have been associated with some endocrine disorders including Cushing Syndrome; Congenital adrenal hypoplasia with 21-hydroxylase deficiency, Conn syndrome due to primary aldosteronism [2]. CT is the imaging modality of choice for these tumors because of its sensitivity, and easy availability. A well defined fatty adrenal mass with negative attenuation value (-30 to -100 HU) is almost diagnostic of myelolipoma. The presence of hematopoietic elements, intratumoral bleed, calcification and adrenal tissue accounts for non-fat density and heterogeneity. MRI is complimentary to CT in confirming the diagnostic. Its multiplanar capability is helpful in confirming the adrenal origin of the mass and in depicting both microscopic and macroscopic fat using chemical shift imaging and fat saturation technique, helping with the differentiation from a lipid- rich adrenal adenoma that will show a greater loss of signal intensity on chemical shift imaging as it contains microscopic fat [2]. Retroperitoneal lipoma or liposarcoma, upper pole renal angiomyolipoma and retroperitoneal teratoma have to be considered in the differential diagnosis of the adrenal myelolipoma. No malignant potential, regardless of size, has been reported in a myelolipoma so surgical intervention is not required for asymptomatic and non-hemorrhagic myelolipomas. Treatment options include: Conservative management with follow-up over one to two years with imaging to ensure size stability has been recommended for small lesions. Surgical treatment for small myelolipomas that are increasing in size, symptomatic, hemorrhagic, lesions that are 6 cm or larger, and in situations when malignancy cannot be excluded. In these cases, a laparoscopic approach, adrenalectomy or partial adrenalectomy (excision of tumor), is more superior to laparotomy as it can lead to lower morbidity and faster recovery and discharge [3].

Conclusion

Adrenal myolipoma is a benign tumor whose radiological diagnosis is essentially based on CT scan which can sometimes be supplemented by an MRI and whose radiological semiology remains typical; often the treatment is surgical with a favorable outcome.

Bibliography

1. Kiyasettin Asila., *et al*. "Multicentric adrenal myelolipomas: Case report". *Journal of Medical Cases* 6.2 (2015): 91-94.

2. Anthony Kodzo-Grey Venyo. "Myelolipoma of the adrenal gland: A review and update of the literature". *Pulsus Journal of Surgical Research* 2.2 (2018): 50-63.

3. Yanni S Zulia., *et al*. "A rare case of hemorrhagic giant adrenal myelolipoma: Radiographic and pathologic correlation". *Cureus* 13.8 (2021): e17353.

Volume 7 Issue 12 December 2024