SUNTEXT REVIEWS

SunText Review of Case Reports & Images
ISSN: 2766-4589

Open Access
Case Report
Volume 5:3

Adrenal Myelolipoma: A Rare Case of the Incidentaloma: About One Case

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Received date: 31 March 2024; **Accepted date:** 03 April 2024; **Published date:** 10 April 2024

Citation: Iken T, Remmal A, Nuiakjh J, Yazghi Martah L, Kournif H, Lamri H, et al. (2024) Adrenal Myelolipoma: A Rare Case of the Incidentaloma: About One Case. SunText Rev Case Rep Image 5(3): 129.

DOI: https://doi.org/10.51737/2766-4589.2024.129

Abstract

Background: Adrenal myelolipoma is a rare, benign, non-functioning tumor of the adrenal gland. Which is why it is often asymptomatic, but it may be complicated by pain or retroperitoneal hemorrhage. Medical imaging is key to the diagnosis by highlighting its fatty component, non-present in other adrenal incidentalomas. Surgery is indicated when there is a large or Complicated Myelolipoma. We report the case of a large symptomatic adrenal myelolipoma discovered in a 50 year old woman.

Case Report: We describe a case of an 8cm non-functional, and heterogenous right adrenal myelolipoma discovered on a routine computed tomography (CT) scan evaluation for cervical cancer in a 50 years old woman.

Keywords: Adrenal myelolipoma; Cervical cancer; Tumour diseases; Retroperitoneal hemorrhage

Introduction

Adrenal myelolipoma is a rare, benign, non-functioning tumour of the adrenal gland. Which is often asymptomatic, but it may be complicated by pain or retroperitoneal hemorrhage. Medical imaging is key to the diagnosis by highlighting its fatty component, non-present in adrenal incidentalomas. Surgery is indicated when there is a large or Complicated Myelolipoma. We report the case of a large symptomatic adrenal myelolipoma discovered in a 50 year old woman.

Observation

The patient was a 50 year-old married woman, G8P5, diabetic, with a history of cervical cancer, was referred to our institution for an adrenal mass found on a Ct scan performed to assess her cervical cancer. Ct scan revealed a well-defined 8 cm Heterogenous mass of the right adrenal gland. The patient exhibited no clinical signs of adrenal dysfunction: the clinical evaluation was normal.

Discussion

Once considered an autopsy curiosity, adrenal myelolipoma is now increasingly diagnosed with the frequent use of modern imaging methods. In a recent meta-analysis, fewer than 100 cases were reported [1]. The real incidence of adrenal myelolipoma is difficult to determine because of its rarity and its mostly asymptomatic character [2]. It is estimated to be between 0.08 and 0.2% in old autopsy series [3]. It is most often discovered in the fifth decade of life (extremes from 17 to 93 years) with a slight male predominance. Adrenal myelolipoma is most often unilateral, and is frequently associated with obesity, high blood pressure (HTA), endocrine disorders or various tumor diseases [3,4]. The origin of these tumors remains poorly understood. The metaplastic theory is the most widely accepted: the adrenal myelolipoma would derive from reticular cells of the adrenal cortical framework in response to an infection, to necrotic lesions of the adrenal gland or to chronic stress [4]. Adrenal myelolipoma is a non-secreting tumor that does not cause any adrenal hormonal dysfunction. It is most often asymptomatic [5]. It may manifest itself by non-specific symptoms consisting of nonspecific abdominal pain secondary to the mass effect in the case of large tumors, or intratumoral hemorrhagic and necrotic phenomena 2 '.

High blood pressure may be observed in case of compression of a renal artery. Rarely, due to tumor rupture, patients may present with acute back pain, associated with a state of hypovolemic shock secondary to retroperitoneal hemorrhage. This is a serious complication that can be life-threatening and require emergency surgery [6]. Imaging studies are most often helpful in making the diagnosis and differentiating adrenal myelolipoma from other adrenal incidentalomas by demonstrating its fatty component 2". Ultrasound typically shows a markedly hyperechoic adrenal mass of solid nature. CT scan is the gold standard for the diagnosis. It usually shows a well-limited adrenal formation, which may be septate or contain fine calcifications that displace the healthy adrenal parenchyma. It allows above all to detect the fatty contingent of the tumor characterized by a negative density of -50 to -100 UH [7].

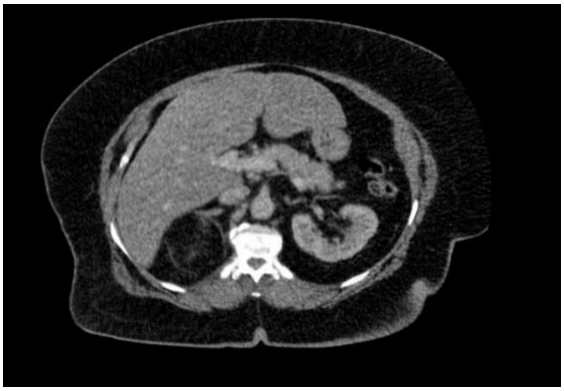

Figure 1: *Axial C+ abdominal stage in portal phase showing a right adrenal mass with sharp and regular contours, hypodense (- 110 HU) not enhancing after contrast injection.*

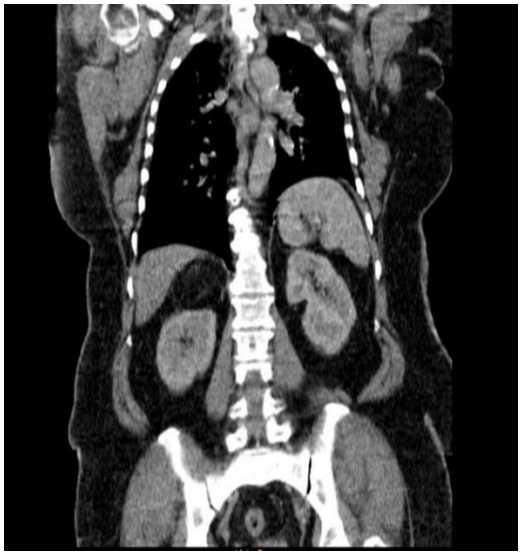

Figure 2: *Coronal C+ abdominal stage in portal phase showing a right adrenal mass with sharp and regular contours, hypodense (- 110 HU) not enhancing after contrast injection.*

Sometimes, the diagnosis can be more challenging when there are some hemorrhagic changes or preponderance of the myeloid component masking the "fatty" character; the adrenal myelolipoma may then appear hypoechoic on ultrasound and hyperdense taking the contrast medium on CT.

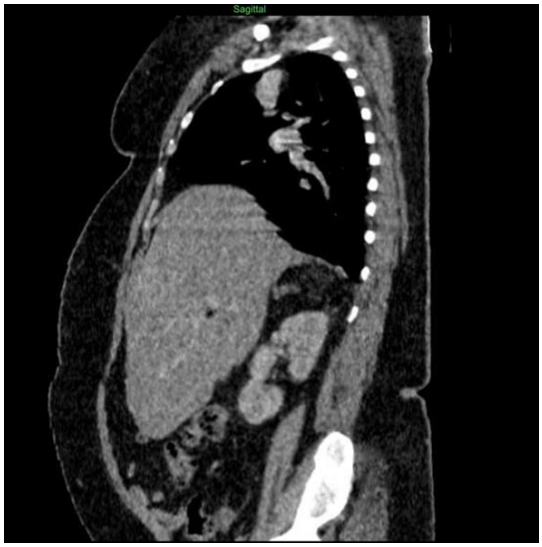

Figure 3: *Sagittal C+ abdominal stage in portal phase showing a right adrenal mass with sharp and regular contours, hypodense (- 110 HU) not enhancing after contrast injection.*

This appearance may be confused with a pheochromocytoma or a non-secreting adrenal carcinoma or even a renal angiomyolipoma. In these situations, magnetic resonance imaging (MRI) can be useful and allow a better tissue characterization of the components of the adrenal myelolipoma by demonstrating a clear hypersignal on T1-weighted sequences and a T2 signal attenuation for the fatty component as well as a hyposignal in T1 and an intermediate signal in T2 for the hematopoietic component. In case of persistent diagnostic doubt, particularly in patients with a history of extrasensory neoplasia, or in bilateral forms, fine needle aspiration guided by ultrasound or ct scan with cytological study is justified and can sometimes avoid unnecessary surgery. Adrenalectomy is the primary treatment and may be indicated in the following settings: painful forms, complicated forms (hemorrhage, compression), doubt on a malignant component. With the progress made in laparoscopic surgery, surgical excision is increasingly recommended by this route [8]. Management of asymptomatic adrenal myelolipoma, is controversial. They are most often simply monitored by imaging. However, any increase in volume during follow-up will warrant surgical removal, given the risk of haemorrhagic complications. A few authors systematically indicate surgical removal from the outset, while others reserve this attitude for large tumors [8-14]. Regular monitoring, based mainly on CT, is necessary because of the possibility of development of lateral adrenal myelolipoma.

The prognosis after surgical treatment is good, with recurrence-free follow-ups of up to 12 years (Figures 1-3).

Conclusion

Adrenal myelolipoma is a benign tumor, rare and often asymptomatic of incidental discovery. Imaging usually allows the diagnosis to be evoked. The complicated, sympathetic or voluminous nature of the adrenal myelolipoma should indicate surgical removal with anatomopathological confirmation. Otherwise, surveillance by imaging is recommended.

References

1. Wang F, Liu J, Zhang R, Bai Y, Li C, Li B, et al. CT and MRI of adrenal gland pathologies. Quant Imaging Med Surg. 2018; 8: 853-875.
2. Haro A, Fujishita T, Nishikawa H, Taguchi Y, Kouda T, Kajiwara K, et al. A rare case of gradual enlargement of a multifocal myelolipoma of the posterior mediastinum for 12 years after surgical resection of an adrenal myelolipoma. Int J Surg Case Rep. 2018; 51: 400-403.
3. Calissendorff J, Juhlin CC, Sundin A, Bancos I, Falhammar H. Adrenal myelolipomas. Lancet Diabetes Endocrinol. 2021; 9: 767-775.
4. Selye H, Stone H. Hormonally induced transformation of adrenal into myeloid tissue. Am J Pathol. 1950; 26: 211-233.
5. Lam AK. Lipomatous tumours in adrenal gland: WHO updates and clinical implications. Endocr Relat Cancer. 2017; 24: 65-79.
6. Nabi J, Rafiq D, Authoy FN, Sofi GN. Incidental detection of adrenal myelolipoma: a case report and review of literature. Case Rep Urol. 2013; 789481.
7. Wilson B, Becker A, Estes T, Keshavamurthy J, Pucar D. Adrenal hemangioma definite diagnosis on CT, MRI, and FDG PET in a patient with primary lung cancer. Clin Nucl Med. 2018; 43: 192-194.
8. Shenoy VG, Thota A, Shankar R, Desai MG. Adrenal myelolipoma: Controversies in its management. Indian J Urol. 2015; 31: 94-101.
9. Zeiger MA, Thompson GB, Duh QY, Hamrahian AH, Angelos P, Elaraj D, et al. American association of clinical Endocrinologists. American association of Endocrine Surgeons. American association of clinical endocrinologists and American association of endocrine Surgeons medical guidelines for the management of adrenal Incidentalomas: executive summary of recommendations. Endocr Pract. 2009; 15: 450-453.
10. Mayo-Smith WW, Song JH, Boland GL, Francis IR, Israel GM, Mazzaglia PJ, et al. Management of Incidental Adrenal Masses: A White Paper of the ACR Incidental Findings Committee. J Am Coll Radiol. 2017; 14: 1038-1044.
11. Mahmood E, Loughner CL, Anastasopoulou C. StatPearls [Internet]. StatPearls Publishing; Treasure Island (FL): 2023. Adrenal Adenoma
12. Dogra P, Sundin A, Juhlin CC, Calissendorff J, Falhammar H, Bancos I. Rare benign adrenal lesions. Eur J Endocrinol. 2023; 188: 407-420.
13. Torti JF, Correa R. StatPearls [Internet]. StatPearls Publishing; Treasure Island (FL): Aug 7, 2023. Adrenal Cancer.
14. Siew CCH, Apte SS, Baia M, Gyorki DE, Ford S, van Houdt WJ. Retroperitoneal and mesenteric liposarcomas. Surg Oncol Clin N Am. 2022; 31: 399-417.