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1 Adrenal Myelolipoma : A Rare Case of the Incidentaloma : 2 About One Case

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6 **Abstract**

7 Background: Adrenal myelolipoma is a rare, benign, non-functioning tumor of the adrenal
8 gland. Which is why it is often asymptomatic, but it may be complicated by pain or
9 retroperitoneal hemorrhage. Medical imaging is key to the diagnosis by highlighting its fatty
10 component, non present in other adrenal incidentalomas. Surgery is indicated when there is a
11 large or Complicated Myelolipoma. We report the case of a large symptomatic adrenal
12 myelolipoma discovered in a 50 year old woman. Case report: We describe a case of an 8cm
13 non-functional, and heterogenous right adrenal myelolipoma discovered on a routine computed
14 tomography (CT) scan evaluation for cervical cancer in a 50 years old woman.

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16 **Index terms—**

17 **1 I. INTRODUCTION**

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

23 **2 II.**

24 **3 OBSERVATION**

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

29 **4 DISCUSSION**

30 Once considered an autopsy curiosity, adrenal myelolipoma is now increasingly diagnosed with the frequent use of
31 modern imaging methods. In a recent meta-analysis, fewer than 100 cases were reported(1). The real incidence
32 of adrenal myelolipoma is difficult to determine because of its rarity and its mostly asymptomatic character(2).
33 It is estimated to be between 0.08 and 0.2% in old autopsy series(3).

34 It is most often discovered in the fifth decade of life (extremes from 17 to 93 years) with a slight male
35 predominance. Adrenal myelolipoma is most often unilateral, and is frequently associated with obesity, high
36 blood pressure (HTA), endocrine disorders or various tumor diseases (3) (4).

37 The origin of these tumors remains poorly understood. The metaplastic theory is the most widely accepted:
38 the adrenal myelolipoma would derive from reticular cells of the adrenal cortical framework in response to an
39 infection, to necrotic lesions of the adrenal gland or to chronic stress (4).

40 Adrenal myelolipoma is a non-secreting tumor that does not cause any adrenal hormonal dysfunction. It is
41 most often asymptomatic(5).

42 It may manifest itself by non-specific symptoms consisting of nonspecific abdominal pain secondary to the
43 mass effect in the case of large tumors, or intratumoral hemorrhagic and necrotic phenomena 2'. high blood
44 pressure may be observed in case of compression of a renal artery.

45 Rarely, due to tumor rupture, patients may present with acute back pain, associated with a state of hypovolemic
46 shock secondary to retroperitoneal hemorrhage. This is a serious complication that can be life-threatening and
47 require emergency surgery (6).

48 Imaging studies are most often helpful in making the diagnosis and differentiating adrenal myelolipoma from
49 other adrenal incidentalomas by demonstrating its fatty component 2".

50 Ultrasound typically shows a markedly hyperechoic adrenal mass of solid nature. CT scan is the gold standard
51 for the diagnosis. It usually shows a well-limited adrenal formation, which may be septate or contain fine
52 calcifications that displace the healthy adrenal parenchyma. It allows above all to detect the fatty contingent of
53 the tumor characterized by a negative density of -50 to -100 UH (7).

54 Sometimes, the diagnosis can be more challenging when there are some hemorrhagic changes or preponderance
55 of the myeloid component masking the "fatty" character; the adrenal myelolipoma may then appear hypoechoic
56 on ultrasound and hyperdense taking the contrast medium on CT. This appearance may be confused with a
57 pheochromocytoma or a non-secreting adrenal carcinoma or even a renal angiomyolipoma. In these situations,
58 magnetic resonance imaging (MRI) can be useful and allow a better tissue characterization of the components
59 of the adrenal myelolipoma by demonstrating a clear hypersignal on T1-weighted sequences and a T2 signal
60 attenuation for the fatty component as well as a hyposignal in T1 and an intermediate signal in T2 for the
61 hematopoietic component.

62 In case of persistent diagnostic doubt, particularly in patients with a history of extrasensory neoplasia, or in
63 bilateral forms, fine needle aspiration guided by ultrasound or ct scan with cytological study is justified and can
64 sometimes avoid unnecessary surgery.

65 Adrenalectomy is the primary treatment and may be indicated in the following settings: painful forms,
66 complicated forms (hemorrhage, compression), doubt on a malignant component. With the progress made in
67 laparoscopic surgery, surgical excision is increasingly recommended by this route(8).

68 Management of asymptomatic adrenal myelolipoma, is controversial. They are most often simply monitored
69 by imaging. However, any increase in volume during follow-up will warrant surgical removal, given the risk of
70 haemorrhagic complications.

71 A few authors systematically indicate surgical removal from the outset, while others reserve this attitude for
72 large tumors (8).

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76 Regular monitoring, based mainly on CT, is necessary because of the possibility of development of lateral
77 adrenal myelolipoma.

78 The prognosis after surgical treatment is good, with recurrence-free follow-ups of up to 12 years.

79 6 IV. CONCLUSION

80 Adrenal myelolipoma is a benign tumor, rare and often asymptomatic of incidental discovery.

81 Imaging usually allows the diagnosis to be evoked. The complicated, sympathetic or voluminous nature of
82 the adrenal myelolipoma should indicate surgical removal with anatomopathological confirmation. otherwise,
83 surveillance by imaging is recommended.

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Figure 1: Figure 1 :

