

Giant incidentally-detected non-functional adrenal myelolipoma – a case report

Alina Mihaela PASCU, Mircea Daniel HOGEA, Lorena DIMA, Petru Iulian IFTENI, Claudia GAVRIȘ, Marius Alexandru MOGA



FACULTY OF MEDICINE, TRANSILVANIA UNIVERSITY OF BRAȘOV, ROMANIA



Introduction

Adrenal myelolipoma is a rare benign tumor composed of mature adipose tissue and haematopoietic elements developed within the adrenal gland, usually unilateral, asymptomatic, and non-functional. Their real incidence is unknown.

Case report

A 56 year-old female was admitted to our surgery department for **abdominal distension** and the presence of a **large palpable tumor** in the right abdomen discovered during an abdominal ultrasonographic check-up for an incisional hernia, and with **no noticeable symptoms**.

Patient's medical history: a 3rd stage systemic arterial hypertension, insulin-requiring type 2 diabetes mellitus, hysterectomy with anexectomy for a cervical cancer.

The abdominal ultrasound examination showed a large hyperechogenic tumor, heterogenic, located in the right flank and hypochondriac region.

The contrast enhanced computed tomography scan revealed a large retroperitoneal tumor (25 x 17 x 21 cm) well delimited with a heterogenic structure (liquid and non-iodophile lipid densities, and central calcifications). The mass was in contact with the right hepatic lobe, inferior vena cava, ascendant and transverse colon, and, posteriorly, with the diaphragm (*Figure 1*). The CT also showed a 74 mm incisional hernia with incarcerated small bowel.

Biochemical evaluation: serum potassium = 4.2 mmol/L, serum cortisol = 204.8 nmol/L; after a 1-mg overnight dexamethasone suppression test serum cortisol = 22.1 nmol/L.

Taking into account the tumoral mass dimensions, surgical resection was decided. Because of the medial incisional hernia, a medial subxifoid-pubic incision was performed. The mass was dissected from the upper pole of the right kidney, from the right hepatic lobe and from the inferior vena cava and was sent for histological evaluation (*Figure 2*).

The microscopic examination: adrenal cortex, adipose tissue, and multiple (extramedullary) haematopoiesis sites – adrenal myelolipoma (*Figure 3*).

The patient had a good postoperative evolution.

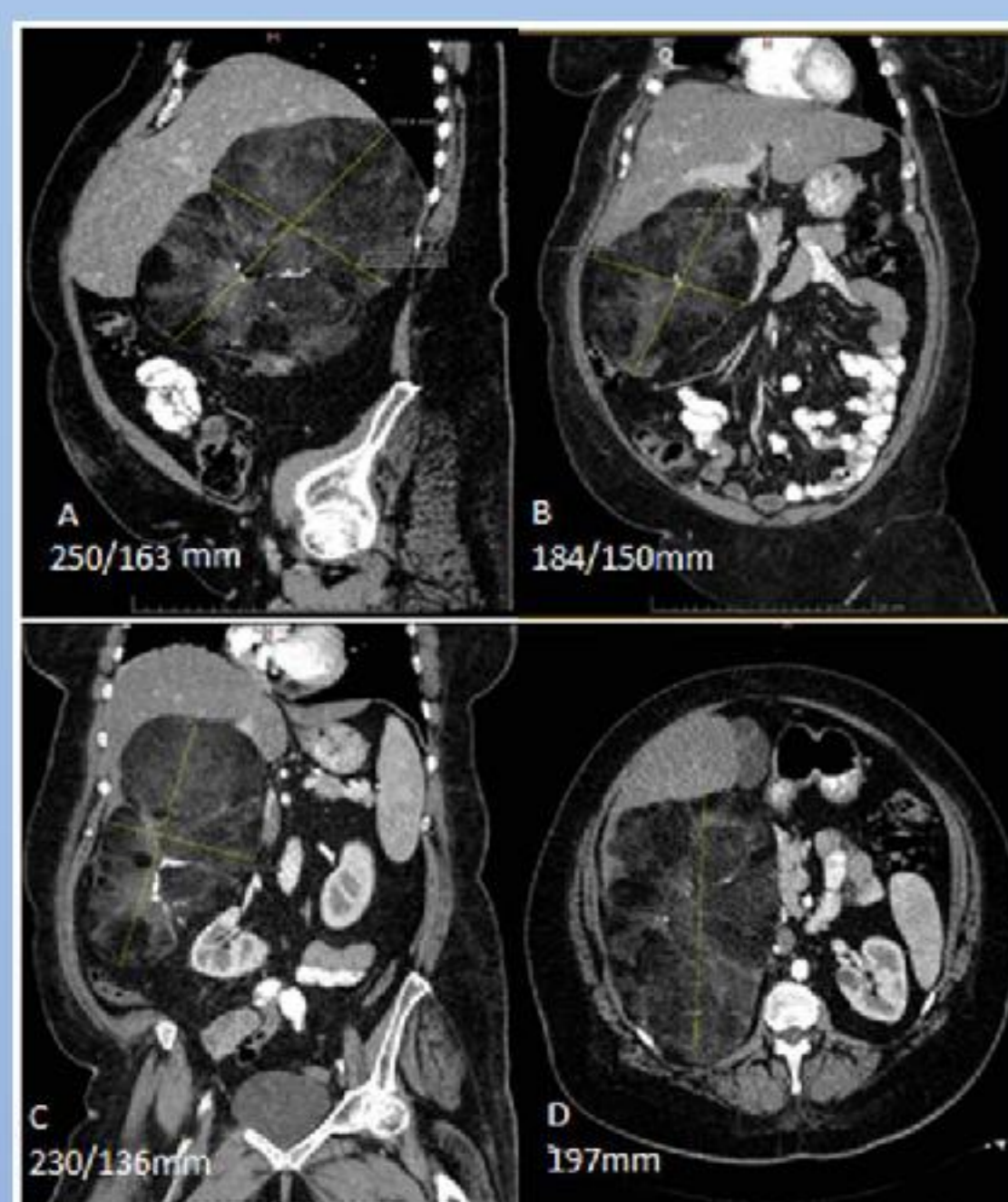


Figure 1. CT aspect of the intra-abdominal mass



Figure 2. Macroscopic aspect of the tumor

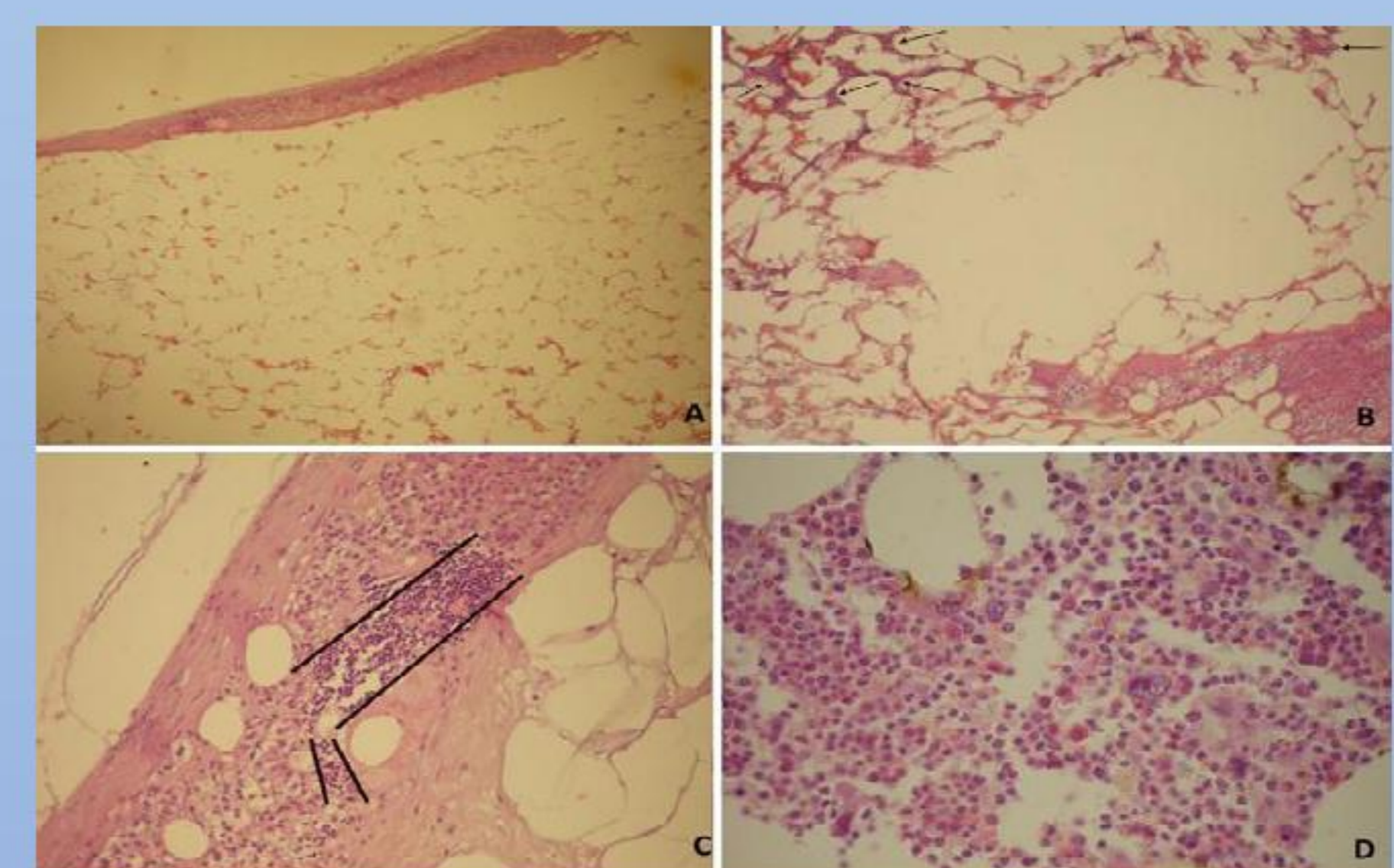


Figure 3. Microscopic view (hematoxylin and eosin staining)

A. Overview of the tumor (4x). Mature adipose tissue, many capillaries and corticosuprarenal gland capsule
B. Overview (10x): Mature adipose tissue and many hematopoietic sites
C. Detail (20x): Hematopoietic site under the corticosuprarenal capsule
D. Detail (40x): Hematopoietic tissue with all blood forming cells

Conclusions

The incidentally detected tumoral mass in the clinical condition of the patient challenged to differentiate an adrenal adenoma (functional or not) from a retroperitoneal lipoma/liposarcoma, or metastasis. A particularity of this myelolipoma was the tumor size (approx. 8.925 cm³).

References:

1. Cristofaro MG, Lazzaro F, Fava MG, Aversa C, Musella M. Giant adrenal myelolipoma: a case report and review of the literature. *Ann Ital Chir.* 2004; 75: 677-681.
2. Brogna A, Scalisi G, Ferrara R, Bucceri A. Giant secreting adrenal myelolipoma in a man: a case report. *Journal of Medical Case Reports.* 2011; 5: 298.
3. Nabi J, Rafiq D, Authoy FN. Incidental detection of adrenal myelolipoma: a case report and review of literature. *Case Reports in Urology.* 2013.
4. Daneshmand S, Quek ML. Adrenal myelolipoma: diagnosis and management. *Urol J.* 2006; 3: 71-74.
5. Akamatsu H, Koseki M, Nakaba H, Sunada S, Ito A, Teramoto S, Miyata M. Giant adrenal myelolipoma: report of a case. *Surg Today.* 2004; 34: 283-285.
6. Allison KH, Mann GN, Norwood TH, Rubin BP. An unusual case of multiple giant myelolipomas: clinical and pathogenetic implications. *Endocr Pathol.* 2003; 14: 93-100.
7. Bhansali A, Dash RJ, Singh SK, Behra A, Singh P, Radotra BD. Adrenal myelolipoma. Profile of six patients with a brief review of literature. *Int J Endocrinol Metab.* 2003; 1: 33-40.
8. Sudeendra D, Tarun S, Tessa L, Prakash S. Management of an incidentally found large adrenal myelolipoma: a case report. *Cases Journal.* 2009; 2: 8414.
9. Lawler LP, Pickhardt PJ. Giant adrenal myelolipoma presenting with spontaneous hemorrhage: CT, MR and pathology correlation. *Ir Med J.* 2001; 94: 231.
10. Zieker D, Königsrainer I, Miller S, Vogel U, Sotlar K, Steurer W, Königsrainer A, Lehmann T. Simultaneous adrenal and extra-adrenal myelolipoma – an uncommon incident: case report and review of the literature. *World J Surg Oncol.* 2008; 6: 72.

