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# Ectopic adrenal oncocytoma simulating a segment I tumor: A case report

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#### Abstract

Oncocytomas are tumors consisting exclusively or almost exclusively of oncocytic cells. Their localization in the adrenal gland and especially in the ectopic adrenal gland is extremely rare. It is often a benign tumor, non-functional and of fortuitous discovery. We report the case of a 48 year old female patient who presented with abdominal pain. The general examination showed a patient in good general condition, vitals were normal, the physical examination was normal. The abdominal CT and MRI scans were in favor of a segment I HCC. Surgical exploration found a 4cm mass on the anterior aspect of the inferior vena cava under segment I of the liver. A resection of the mass flush with the vena cava was performed. The postoperative course was simple. Anatomopathological examination concluded that the mass was an ectopic adrenal oncocytoma.

Ectopic adrenal oncocytoma is a very rare tumor, often benign. Its treatment is always surgical and its diagnosis is based on histological and immunochemical studies.

Keywords: Adrenal, oncocytoma, resection

# Introduction

Oncocytomas are tumors consisting exclusively or almost exclusively of oncocytic cells [1]. Oncocytic cells are large cells (15-20 µm) with large, hyperchromatic nuclei and abundant, eosinophilic, granular cytoplasm due to an accumulation of altered mitochondria [2].

The adrenal oncocytoma is a non-secreting tumor, its usual location is the adrenal gland [3]. The location can be ectopic: kidney, pituitary gland, liver, thyroid, parathyroid, salivary glands [3, 4].

#### Observation

This was a 48-year-old patient with a history of pulmonary tuberculosis treated and declared cured in 2012, admitted for intense prickly abdominal pain located in the epigastrium without calming or aggravating factors radiating to the right hemithorax.

She had a good general condition WHO-1, the mucous membranes were colored anicteric, no sign of dehydration or malnutrition, the vitals were without particularity. The abdomen was soft without palpable mass, there was no laparotomy scar, the hernial orifices were normal. Pelvic examination was unremarkable.

The CT scan was in favor of a tumor of segment I of the liver with washout at portal time (figure 1). The abdominopelvic MRI showed a focal lesion of segment 1 suspicious of HCC (Fig 2). The oesogastro duodenal endoscopy was normal.

The biological workup was normal, including negative HBsAg and borderline normal AFP.

Surgical exploration by median laparotomy revealed a rounded mass, 4 cm in diameter on the anterior aspect of the inferior vena cava, under segment 1 of the liver (Fig 3). The surgical procedure consisted of a resection of the mass flush with the anterior wall of the IVC, in section, the mass was flat with a homogeneous slice (Fig 4).

The postoperative course was simple, the patient was discharged seven days after the operation. The histological and histochemical study showed macroscopically a well limited adenoma with a tissular aspect weighing 10g, measuring 40 X 30 X 20 mm. Microscopy showed large cells filled with eosinophilic granulations with an ovoid nucleus in favor of an ectopic adrenal oncocytoma.

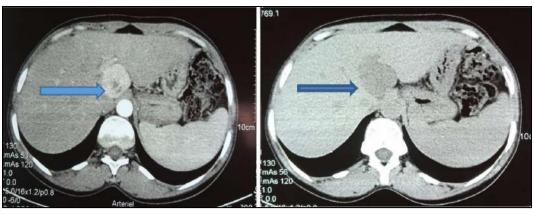


Fig 1a: Abdominopelvic CT scan without contrast

Fig 1b: Abdominopelvic CT scan with contrast.

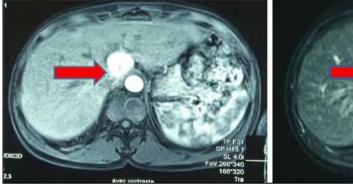


Fig 2b: T1 slice shows hyper signal

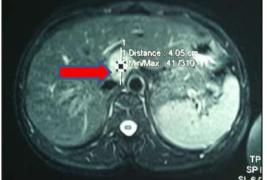


Fig 2b: T2 slice shows hypo signal

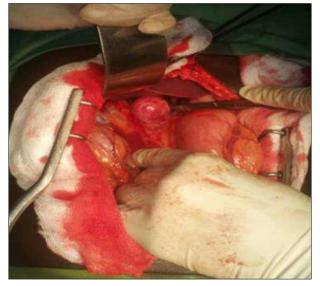


Fig 3: Operative view, 4 cm lesion below segment I, on the anterior aspect of the IVC (blue arrow)

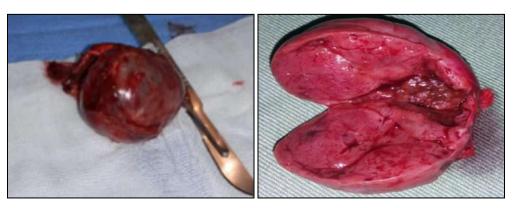


Fig 4: Surgical specimen measuring 4 cm in long axis, homogeneous to the cut

#### Discussion

The adrenal oncocytoma is very rare, the ectopic form is exceptional, 16 to 23% of adrenal oncocytomas are malignant tumors <sup>[5]</sup>.

Adrenal oncocytoma is a pathology of the young subject, usually male [6].

The diagnosis of adrenal oncocytoma is morphological with a considerable contribution of the CT scan rarely in a context of abdominal pain [7].

Usually the discovery of adrenal oncocytoma is fortuitous on imaging, in our observation, it simulated a hepatocellular carcinoma localized in segment I. The kinetics of the lesion on imaging resembled a wash in wash out phenomenon characteristic of hepatocellular carcinoma [8].

The treatment of adrenal oncocytomas is always surgical with at best a minimally invasive approach [9].

## Conclusion

Ectopic adrenal oncocytoma is a very rare tumor, often benign and of incidental discovery. Its treatment is always surgical, at best by minimally invasive approach. The definitive diagnosis is based on the histological and immunohistochemical study of the surgical specimen.

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## **Author's Contribution**

Not available

#### **Conflict of Interest**

Not available

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