International Journal of Academic Health and Medical Research (IJAHMR)
ISSN: 2643-9824
Vol. 8 Issue 4 April - 2024, Pages: 136-138

Pheochromocytoma: A Case Report

Sanati Yassine, Mohamed Habib Cherif, El bouhaddouti Hicham, Ait Taleb Khalid, Benjelloun Elbachir, Mouaqit Ouadii, Bouassria Abdesslam, Marghich Omar

Visceral surgery service, Hassan II university hospital, Faculty of medicine and pharmacy of Fez, Sidi mohammed ben abdellah university, Fez, Morocco

Corresponding author : Sanati Yassine

Visceral surgery service, Hassan II university hospital, Faculty of medicine and pharmacy of Fez, Sidi mohammed ben abdellah university, Fez, Morocco

Abstract: *Pheochromocytoma is a rare tumor located in the adrenal medulla, which derives from chromaffin cells and produces catecholamines. These tumors are uncommon causes of high blood pressure, and only 50% of patients show signs suggestive of this pathology, note that these tumors can appear extra-adrenal and are called paraganglioma.*

INTRODUCTION:

Arterial hypertension is of a high frequency all around the world, thus responsible for significant morbidity and mortality. On the other hand, 3-10% are caused by secondary hypertension, with the advantage of the possibility of being completely cured, hence the importance of recognizing and knowing how to treat the etiologies of secondary hypertension [1].
The clinical presentations vary according to the location as well as the degree of secretion of catecholamines, the most frequent clinical triad is: headache, palpitation, profuse sweating, it should be noted that early diagnosis requires a significant secretion of catecholamines as well as a good anatomical documentation [2,3]. Surgical resection remains the key treatment after which high blood pressure disappears or becomes easily controllable [3].

CASE PRESENTATION:

We report the case of a 55-year-old man, married father of 3 children, with a history of bipolar disorder under treatment as well as active smoking for 30 years, the patient had initially consulted for right lumbar pain of moderate intensity intermittent without other associated signs, in particular no headache or other signs of the menard triad in favor of an adrenergic crisis.
Faced with this table, the patient had benefited from an abdominal scan returning in favor of an adrenal incidentaloma, the biological assessment having shown positive results of normetanephrine, metanephrine as well as 3 ortho-methyl dopa in favor of a pheochromocytoma.
The imaging was completed by an MRI returning in favor of a calcified adrenal hematoma on a probable pheochromocytoma measuring 106*86*90mm which present an intimate contact with the Inferior vena cava without invading it as well as the liver the right kidney and the psoas muscle, an MIGB scintigraphy was also performed, which was also in favor of right adrenal uptake in favor of a pheochromocytoma with possible secondary bone location next to the right acetabulum, so the decision after multidisciplinary consultation was surgical exploration with resection of the tumor if possible.
The patient was operated on with the presence of a voluminous right adrenal tumor presenting an intimate contact with the underside of the liver as well as the Inferior Vena Cava, the resection was at the cost of a perforation of the vena cava which was sutured with Obtaining satisfactory hemostasis, the postoperative follow-up was without abnormality, and the result of the pathology exam of the surgical specimen confirmed the pheochromocytoma with the decision of a simple postop surveillance monitoring (fig 1,2).

DISCUSSION:

Catecholamine-secreting tumors are rare neoplasms, found in approximately 0.1 to 1% of hypertensive patients [2], more common in patients aged between 40 and 50 years with no gender predominance [4]. The clinical presentations vary between either a secreting incidentaloma or the existence of arterial hypertension resistant to medical treatment with possible cerebral or cardiovascular complications, only 4% of adrenal incidentalomas are confirmed to be pheochromocytomas, the rest generally are benign adenomas [2]. In the case of our patient, the diagnosis was mainly guided by imaging and biological examinations, since clinically he did not present signs in favor of adrenergic crises, hence the importance of pushing the paraclinical investigations for the confirmation of the nature of this type of tumors [2,5].
The diagnosis of this pathology requires an important secretion of catecholamines and a good anatomical documentation of the tumor [3]. Once the diagnosis is confirmed, a genetic test must be performed because 30 to 40% of patients have germline

mutations, which is associated with a high risk of malignancy and transmission. Note that there are several family pathologies associated with pheochromocytoma, the most important of which are: von hippel-lindau syndrome (VHL), multiple endocrine neoplasia type 2 (MEN2) and neurofibromatosis type 1 (NF1) [3,6].

Surgery remains the treatment of choice for these tumors, curable in more than 90% of patients, preoperative preparation is important to reduce the morbidity and mortality of patients [3,5], alpha blockers as well as good hydration with isotonic saline is recommended by endocrinologists for patients who will be operated on for pheochromocytoma to reduce hemodynamic instabilities during intraoperative manipulation of the tumor [5], beta-blockers are also used to reduce the risk of tachycardia. Postoperatively, arterial hypotension as well as hypoglycemia secondary to hyperinsulinemia are very frequent, hence the importance of good monitoring of blood pressure as well as capillary glycaemia at least a few days after surgery [3,5].

CONCLUSSION:

Pheochromocytomas are rare neuroendocrine tumors responsible for arterial hypertension in less than 1% of patients. Only 50% present symptoms suggestive of the pathology, of which the majority of cases the symptoms are paroxysmal. Surgery is the treatment of choice but long-term monitoring is recommended.

BIBLIOGRAPHIE :

1. Barroso, W.K.S., Rodrigues, C.I.S., Bortolotto, L.A. (2020). *Brazilian guidelines on arterial hypertension*.
2. Soltani, A., Pourian, M., Davani, B.M. (2016). Does this patient have pheochromocytoma?
3. Neumann, H.P., Young, W.F. Jr., Eng, C. (2019). pheochromocytoma and paraganglioma. N English journal.
4. Guerrero MA, Schreinemakers JM, Vriens MR : clinical spectrum of pheochromocytoma. J Al Coll Surg 2009
5. Ramachandran R, Rewari V: current perioperative management of pheochromocytomas. Indian J Urol 2017
6. Martins R, Bugalho MJ: paragangliomas-pheochromocytomas: clinically oriented genetic testing. Int J Endocrinol 2014.

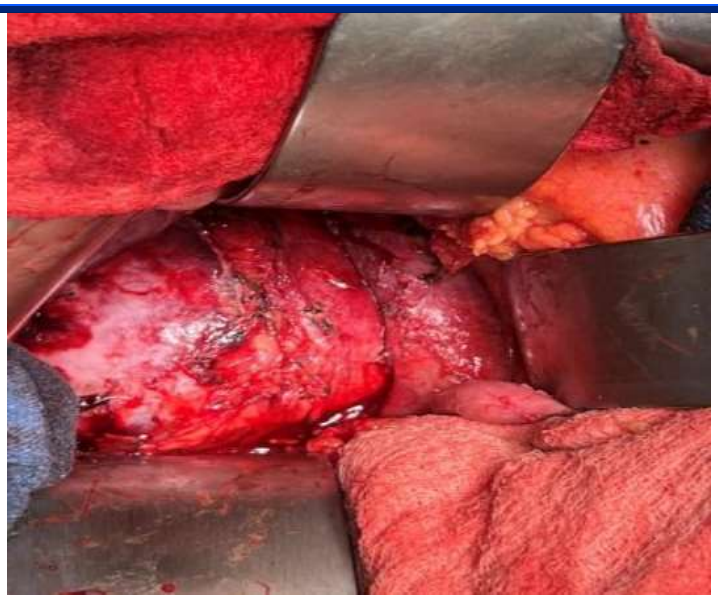

Figure 1: showing the close contact of the pheochromocytoma to the liver and especially the IVC

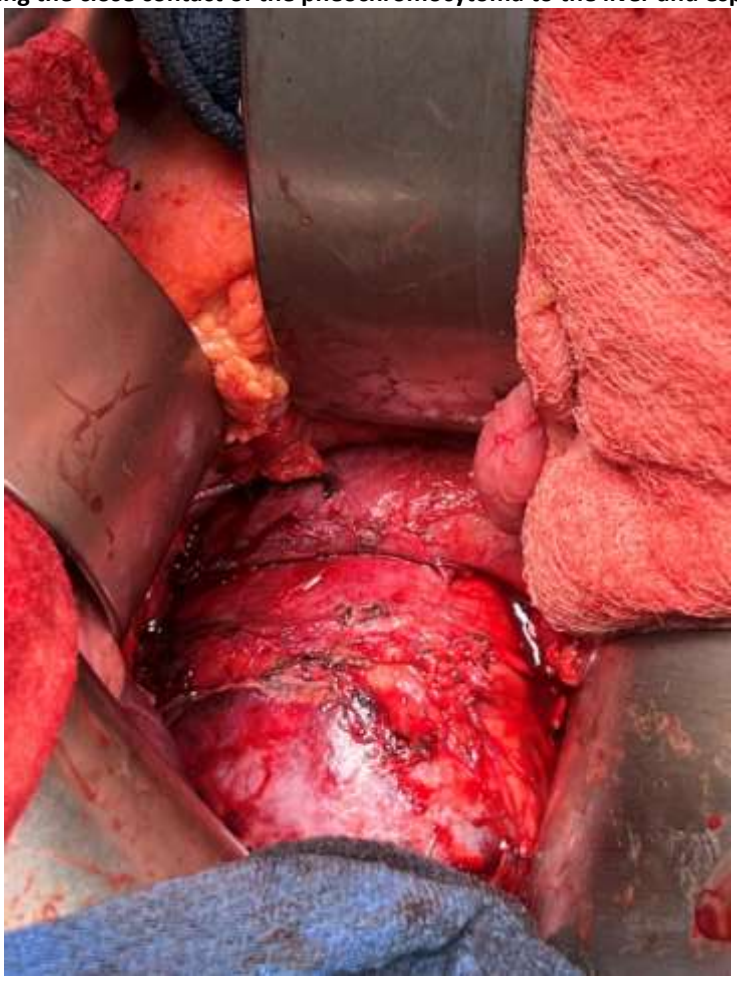

Figure 2: after partial dissection of the tumor with the discovery of a posterior parital wound of the IVC