Caso Clínico

SPCENDO
Sociedade Portuguesa de Cirurgia Endócrina

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Pheochromocytoma: A fortunate incidental finding

Introduction

With increasing utilization of cross-sectional imaging over the past several decades, 40% of adrenal masses are now discovered incidentally. Catecholamine-secreting tumors are rare, occurring in <0.2% of patients with hypertension. The classic triad of paroxysmal symptoms includes episodic headache, sweating, and tachycardia, however the clinical presentation of pheochromocytoma (PCC) is highly variable.

Clinical case

69-year-old female patient. Past medical illness: depression and dyslipidemia

March, 2023: Acute cholecystitis. Ultrasound with infiltrative gallbladder wall thickening. Antibiotic treatment was decided to clarify the suspicious wall thickening before surgery

Abdominal CT (FIG.1): 3,5cm left adrenal nodule

To study the gallbladder wall thickening

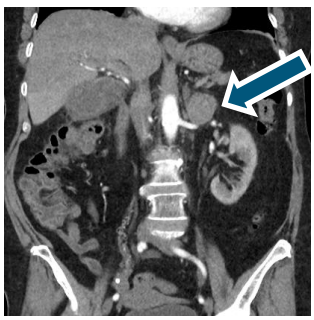

FIG. 1 – Abdominal CT: Left adrenal nodule

April. 2023: Abdominal MRI: "Gallbladder without suspicious wall thickening. 32x29mm nodule in close contact with the left adrenal gland with hypersignal in T1 sequence, heterogeneous signal in T2 sequence, heterogeneous contrast uptake, main diagnostic hypothesis of PCC."

After diagnosis, the patient reported general malaise with 1 year of evolution, episodes of palpitations and arterial hypertension

Urine Metanephrines 2318 µg/day (< 276)
Urine Normetanephrines 908 µg/day (< 669)
A-Chromogranin: negative
Remaining biochemical study: negative

Aug. 2023: MIBG scintigraphy (FIG.2)

Surgery was proposed.
Doxasosin 2 weeks preoperatively

Oct. 2023: Laparoscopic left adrenalectomy + cholecystectomy

5 months postoperative

Urine Methanephrines 22 µg/day
Urine Normetanephrines 35 µg/day

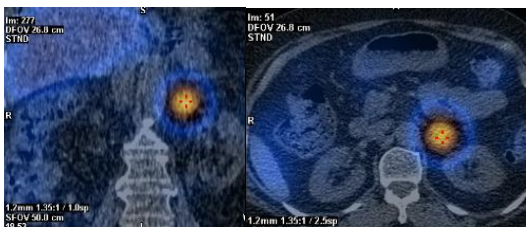

FIG. 2 - MIBG scintigraphy: Left adrenal pheochromocytoma

Histologic result: A - 7.5x4x2.5cm adrenal gland with a well-defined nodule with 3.5x3x2.5cm. Pheochromocytoma: high celularity, without necrosis. PASS score: 10. pT1. B – Acute acalculous cholecystitis

Discussion

In some cases of PCC, as in the one presented, the symptoms are unspecific and episodic, which may be unrecognized, undervalued by the patient or confounded with other clinical entities. The diagnosis is made based upon biochemical confirmation of catecholamine hypersecretion, followed by identifying the tumor with imaging studies. MIBG scintigraphy is a functional exam that confirms the functional gland and excludes other functional foci. All PCCs require preoperative preparation with 2 weeks of α-adrenergic blockade, to prevent intraoperative hypertensive crisis. Resecting a PCC is a high-risk surgical procedure and an experienced surgeon/anesthesiologist team is required. Patients require lifelong follow-up as PCCs can recur. In this case, the diagnosis of PCC prior to gallbladder surgery permitted preoperative preparation. Its absence could have had catastrophic consequences due to hypertensive crisis.

William F Young, Jr, MD. Evaluation and management of the adrenal incidentaloma. In: UpToDate, Connor RF (Ed), Wolters Kluwer. William F Young, Jr, MD. Clinical presentation and diagnosis of pheochromocytoma. In: UpToDate, Connor RF (Ed), Wolters Kluwer. William F Young, Jr, MD. Treatment of pheochromocytoma in adults. In: UpToDate, Connor RF (Ed), Wolters Kluwer. Current Diagnosis and Treatment Surgery, 15th Edition