Clinics in Surgery

Clinical Image
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# Pheochromocytoma in the Etiological Evaluation of Hypertension

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## Clinical Image

Pheochromocytomas are neuroendocrine tumors, secreting catecholamines from the chromaffin cells of the adrenal medulla. There is no reliable clinical, biochemical or histological features to distinguish malignant from benign pheochromocytomas. Catecholamine hypersecretion followed by imaging studies are the key to the diagnosis [1,2].

A 61-year-old male with hypertension was referred for abdominal discomfort in the upper right quadrant. Abdominal ultrasound and CT revealed a tumor in the right adrenal gland without invasion of adjacent organs or loco regional adenopathies (Figure 1). Functional study revealed elevated plasma and urinary catecholamines/metanephrines. He was submitted to laparoscopic right adrenalectomy (Figure 2). Histology revealed a benign pheochromocytoma. Antihypertensive therapy was stopped during follow-up. Detection of pheochromocytoma is mandatory for the potential cure of hypertension and to avoid the lethal effects of an unrecognized tumor. Laparoscopic approach is the procedure of choice for patients with solitary adrenal pheochromocytomas [3,4].

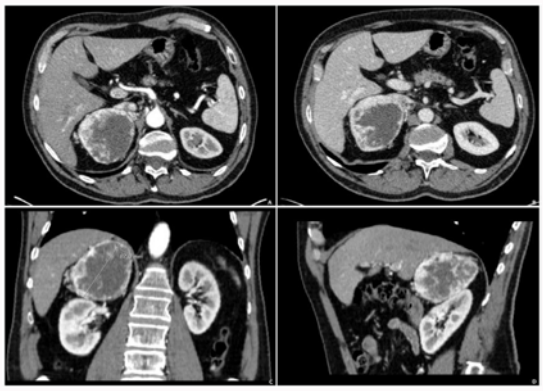

**Figure 1:** Contrast enhanced CT scan shows alterations suggestive of pheochromocytoma of the right adrenal gland (A and B: Axial CT views; C and D: Coronal and Sagital reformated CT images).

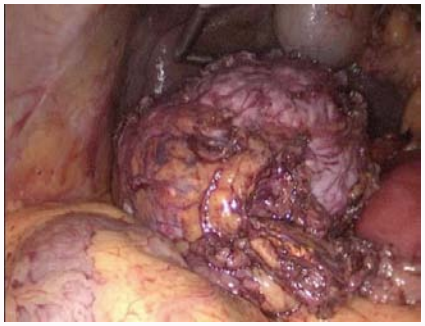

**Figure 2:** Laparoscopic right adrenectomy.

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