

## The Silent Tension: A Case of Pheochromocytoma

Shawn Mathew, DO

### Introduction

Pheochromocytoma is a rare endocrine disease, with incidence rates per 100,000. Classic findings include hypertension, palpitations, and headaches. Typical signs can be absent in some cases.

### Case

A fifty-one-year-old female with history of anxiety with depression on buspirone and aripiprazole, presented for follow up of adrenal nodule. Prior imaging of 2017 showed a nodule 1.1 cm, which had grown to 2.2 cm in 2022. She denied history of hypertension and was not prescribed antihypertensive medications. She reported episodes of orthostatic hypotension, but denies episodes of sweating, palpitations, or chest pain. She reported intermittent headaches but denied cushingoid symptoms. A physical exam showed stable vitals and no abnormalities to palpation or vision. Labs obtained showed DHEA sulfate of 26.6 micrograms, metanephrine total of 1289 milligrams, urine metanephrine 819 milligrams (greater than two times upper limit), plasma metanephrine (greater than 5 times upper unit) (while medication could induce high levels, would not induce 5 times the limit.) Norepinephrine urine was 37 micrograms, epinephrine urine was 11 micrograms. For reference, a normal DHEA sulfate in a woman age 50-60 is 26-200 micrograms, Normal urine metanephrine is 400, plasma metanephrine is 400-600. Norepinephrine in urine is 10-35 micrograms, urine epinephrine is 0 to 20 micrograms. CT abdomen with adrenal protocol (HU) showed right adrenal mass shadowing an absolute washout value of 46.5% and a relative washout value of 27%. Absolute washout less than 60% and relative less than 45% indicate benign adrenal masses. Repeat urine studies continued to show metanephrine levels greater than two times upper limit. Based on these studies, patients were placed on appropriate alpha and beta blocker regimen and referred for surgery.

### Discussion

Pheochromocytoma is usually seen in patients with hypertension. However, patients can have normal pressures or episodes of orthostatic hypotension. With the advent of routine use of imaging, pre symptomatic diagnosis of pheochromocytoma occurs in greater than 60% of patients. For patients with family history or personal history of hypertension, if cardinal symptoms of pheochromocytoma are absent, but mood disorders, diaphoresis, and tachycardia during panic attacks, this should prompt imaging and work up for pheochromocytoma.