Pheochromocytoma, a Mimicker of Hypertensive Disorders in Pregnancy, A Case Report

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Abstract

Introduction:

Pheochromocytomas, tumors that secrete catecholamines, are exceedingly rare especially in pregnancy. The symptoms of pheochromocytoma are classically described as a triad of episodic headaches, sweating, and tachycardia; approximately 50% will also have paroxysmal hypertension. These symptoms often overlap with symptoms seen in hypertensive disorders of pregnancy such as pre-eclampsia as well as normal physiologic changes encountered in pregnancy; this makes it easy for a pheochromocytoma to be overlooked. Pheochromocytomas in pregnancy have been associated with a high risk of maternal and fetal morbidity and mortality, so timely diagnosis is imperative. We describe a complicated postpartum course in a patient who is later diagnosed with pheochromocytoma.

Case Presentation:

We present a case of a 39-year-old G6P4014 who presented for scheduled repeat cesarean at 38 weeks gestational age. Patient's antepartum course was complicated by gestational hypertension on nifedipine and gestational diabetes on metformin. Cesarean section was overall uncomplicated. The patient's postpartum course was complicated by severe range blood pressures on hospital day 1 with nifedipine dosage increased. Pre-eclampsia workup was performed and was unremarkable with protein/creatinine ratio of 231. On hospital day 2, patient had multiple repeat episodes of severe range blood pressures up to 234/91. At this time, magnesium sulfate was started for seizure prophylaxis and suspected pre-eclampsia with severe features. Soon after initiation of magnesium, patient became hypotensive to 68/37 and magnesium was stopped. Patient's postoperative course continued with labile blood pressures requiring multiple doses of IV antihypertensives; due to poor control, hospital medicine and nephrology were consulted. Broader workup was performed, which included thyroid function tests, cortisol, catecholamines, and metanephrines. Repeat pre-eclampsia labs were performed and unremarkable. Thyroid tests and cortisol returned normal during her hospital stay. The patient remained inpatient with poorly controlled blood pressures, sweating, and flushing. After final adjustment of antihypertensive regimen, the patient was discharged on hospital day 11 on labetalol, nifedipine, and clonidine. Metanephrines and catecholamines were still in process at time of discharge.

Working Diagnosis:

Patient's remaining labs returned soon after discharge with elevation of metanephrines at 11,416 mcg/24 hr. She was seen by nephrology in outpatient setting at 10 weeks postpartum and repeat metanephrines remained elevated at 10,487 mcg/24 hr. Symptoms continued with flushing, sweating, and poorly controlled blood pressures for which she was followed closely for. CT abdomen was performed which revealed right adrenal mass measuring 5.5 x 4.4 cm with heterogeneity and cystic areas, highly suggestive of pheochromocytoma.

Outcome:

The patient remains stable and on a beta blocker for blood pressure control at this time. Suspicion is high for pheochromocytoma and the patient is scheduled for definitive treatment with adrenalectomy.

Learning Objectives

Upon completion of this lecture, learners should be able to more easily identify a secondary cause for hypertension in pregnancy in clinical practice and should be able to differentiate between symptoms of pheochromocytoma in pregnancy and hypertensive disorders in pregnancy such as pre-eclampsia.