Acute Hypertensive Crisis Due to Newly Diagnosed Pheochromocytoma in the Ninth Decade of Life: An Unusual Presentation

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Background

- Pheochromocytoma is a rare tumor with reported incidence of 0.6 cases per 100,000 person years. Specifically 0.2-0.6% in hypertensive patients. [1.2]
- Diagnosed typically between the ages of 30-50 years old. [3.4]
- The presentation can be widely varied, and the classic triad of headaches, diaphoretic episodes and tachycardia is not necessary for the diagnosis as the symptoms are not always present. [1.3]

Case Presentation

The patient is an 85-year-old male with uncontrolled hypertension, benign prostatic hyperplasia, type 2 diabetes mellitus, dementia, and coronary artery disease with recent non-ST elevation myocardial infarction who was admitted for elective cardiac catheterization.

During the cardiac catheterization the patient had sudden exacerbation of his baseline uncontrolled hypertension with systolic blood pressure (BP) surging to the 240 mmHg range. Throughout the course of his care his systolic BP further elevated to maximum of 330mmHg and diastolic BP up to 123 mmHg.

Consequently the patient developed acute encephalopathy, worsened from baseline mental status, flash pulmonary edema and acute kidney injury.

Investigations and Interventions

Immediate action was undertaken including invasive blood pressure monitoring and initiation of Nitroglycerin and Nicardipine infusions for improvement in blood pressure control.

The suspicion for Pheochromocytoma was high and thus alpha-blockade was started with Prazosin whilst below testing results were obtained. Beta blockade was also instituted once confirmation of diagnosis was obtained.

	Patient's Results (pg/nl)	Normal Range (pg/nl)
Plasma Free Metanephrines	19,024	<57
Plasma Free Normetanephrines	4,817	<148
Total Free Metanephrines + Normetanephrines	23,841	<205

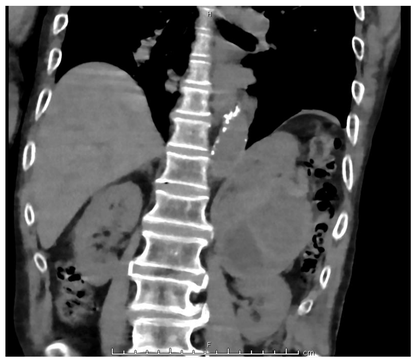

Figure 1:
Coronal view of large left adrenal mass on CT abdomen/pelvis

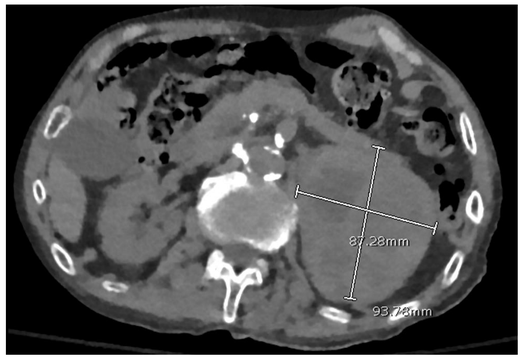

Figure 2:
Sagittal view of left adrenal mass on CT abdomen/pelvis

Discussion

- Pheochromocytoma should be considered in a patient such as ours, with sudden exacerbation in BP during contrast administration, surgical procedure or anesthesia administration, with or without a history of uncontrolled hypertension.[4]
- Definitive treatment of pheochromocytoma includes surgical removal but our patient did not have this undertaken as he was deemed to lack capacity for consent.
- His BP normalized with alpha and beta blockade and was pending a court-appointed guardian for decision making regarding surgical intervention.

Conclusion

- Pheochromocytoma should be considered in patients beyond the classic triad of symptoms.
- This rare entity should be considered regardless of age, for a patient in the right setting or when investigating secondary or uncontrolled hypertension.
- Treatment requires surgical removal but, in some cases, there may be an ethical dilemma to affording definitive treatment.

References

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