A case of idiopathic bilateral adrenal hemorrhage

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Objectives

- Discuss the broad differential and work up for bilateral adrenal hemorrhage (BAH)
- Review the role of empiric steroids
- Highlight the multi-specialty team approach

Introduction

BAH is a relatively rare disease, but can be seen in settings of infection, coagulopathies, anti-coagulant use, underlying adrenal mass, and trauma. The adrenal glands are highly vascularized organs and susceptible to increased vascularity and hyperplasia under stress, thus increasing the risk of bleeding. This disorder can present with non-specific symptoms or can be severe in its presentation as shock, adrenal insufficiency, or acute adrenal crisis. Therefore, a high clinical suspicion is indicated BAH is associated with a high mortality rate of 15%. Management of this condition involves a multidisciplinary team, including surgeons and endocrinologists.

Case Description

A 73-year-old female with a history of hypertension, hypothyroidism, and asthma presents with one week of progressive epigastric abdominal pain. The patient endorsed nausea and non-bloody emesis, but otherwise denied fevers, diarrhea, melena, hematochezia, dysuria or recent trauma. On presentation, she was hypertensive to 179/80 but otherwise hemodynamically stable. Her exam was notable for tenderness with palpation in epigastric region, without rebound or guarding. Her initial lab work was significant for a lactate of 2.6 and stable Hemoglobin count. Infectious work up was notable for 1 out of 2 blood cultures positive for coagulase negative staph, however, a repeat set of blood cultures were negative. CT abdomen/pelvis revealed bilateral stranding adjacent to her adrenal glands concerning for adrenal hemorrhage with a non-enhancing 3.8cm nodularity of the right adrenal gland representing hematoma (Figure 1). An underlying adrenal mass could not be ruled out. Broad spectrum antibiotics were initiated but discontinued soon after as the initial positive blood culture was likely a contaminant. Endocrinology was consulted and recommended empiric initiation of hydrocortisone due to concern that the patient could develop adrenal insufficiency if the hemorrhages evolved. Adrenal workup was unremarkable, including AM cortisol of 26.8, ACTH 24, and metanephrines <25. Hematology was consulted to assist with hypercoagulable workup, which were remarkable for an elevated lupus anticoagulant to 1.40 and elevated anticardiolipin IgM at 35.7. Surgery service did not recommend acute surgical intervention. The patient was discharged with plans to repeat her abdominal imaging and hypercoagulable work up. Her empiric steroids were discontinued given her hemodynamic stability.

The patient followed up with Hematology and repeat Lupus Anticoagulant remained elevated at 1.32, Anti-cardiolipin IgG elevated at 16.8, and Anti-cardiolipin IgM elevated at 46.2. Repeat MRI Abdomen W/WO contrast (the patient reported a contrast allergy, so CT adrenal mass protocol was deferred) showed resolution of the right adrenal hemorrhage with no underlying enhancing mass identified. Minimal residual hemosiderin deposition was seen, and the left adrenal gland was normal. Given the patient only met laboratory criteria but not clinical criteria for antiphospholipid syndrome, she was not started on anticoagulation.

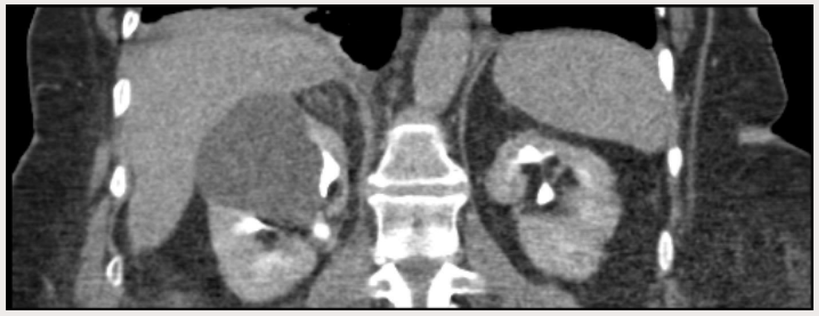

Figure 1. CT demonstrating the patient's right adrenal hematoma

Discussion

This case report highlights an atypical presentation of BAH as epigastric pain. In addition, the etiology of this patient's BAH was inconclusive. Although the patient had elevated antibodies correlating with antiphospholipid syndrome, the patient did not meet clinical criteria as she never had prior vascular thrombosis, pathologic bleeding, or pregnancy-related morbidity associated with antiphospholipid syndrome. In addition, her presentation was relatively mild as she did not experience hemodynamic instability or complications of adrenal insufficiency. However, it is critical to understand the extensive work up needed to rule out the multitude of underlying causes of adrenal hemorrhage as well as the multidisciplinary approach needed to care for this disease. Lastly, this case demonstrates the importance of monitoring these patient's hemodynamics closely as well as the consideration of empiric steroid treatment to prevent further decline.

References

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