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TITLE: A Case of Spontaneous Adrenal Hemorrhage in Pregnancy

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BACKGROUND: Adrenal hemorrhage is a rare condition caused by trauma, sepsis, coagulopathy, neoplasms, COVID-19, and neonatal stress. Trauma is the most common cause of unilateral adrenal hemorrhage¹. Adrenal hemorrhage in pregnancy is likely caused by adrenal hyperplasia and increased arterial blood supply to the gland². The most common presenting symptoms are fever (42%) and abdominal pain (43%)³.

CASE DESCRIPTION: Patient is a 25yo G2P1001 who presented at 31 weeks gestation with acute LUQ pain, nausea, and vomiting. Initial workup revealed a leukocytosis, tachycardia, and elevated PT. Nephrolithiasis or pyelonephritis was suspected, and a CT stone protocol was ordered. Imaging revealed a left adrenal gland hemorrhage. General surgery was consulted and recommended no surgical interventions. The hemorrhage was monitored for expansion with serial CBCs. Adrenal insufficiency was ruled out via ACTH stimulation test. During this test, the patient was monitored with telemetry and continuous fetal monitoring. She was discharged with resolution of symptoms over the next week and did not represent with complications. She delivery vaginally at term after admission for elective induction of labor.

DISCUSSION: Adrenal hemorrhage is a rare albeit important differential diagnosis in patients presenting with abdominal pain as it is seen in 0.14 to 1.1% of pregnancies⁴. Known etiologies of adrenal hemorrhages include trauma, sepsis, coagulopathy, neoplasms, COVID-19, and neonatal stress. Trauma is the most common cause of unilateral adrenal hemorrhage.¹The most common presenting symptoms are fever (42%) and abdominal pain (43%) with most cases presenting in the third trimester.³ Adrenal hemorrhage in pregnancy is believed to occur because adrenal hyperplasia increases arterial blood supply to the gland. This increased supply coupled with the limited renal venous drainage and hypercoagulability in pregnancy leads to venous congestion and subsequent hemorrhage³. Adrenal insufficiency can be life-threatening to the mother and fetus. Patients with an adrenal hemorrhage diagnosed in pregnancy warrant close inpatient monitoring until adrenal insufficiency and expansion can be ruled out.

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