Delayed Gastric Emptying Unmasking Delayed Diagnosis of Adrenal Insufficiency

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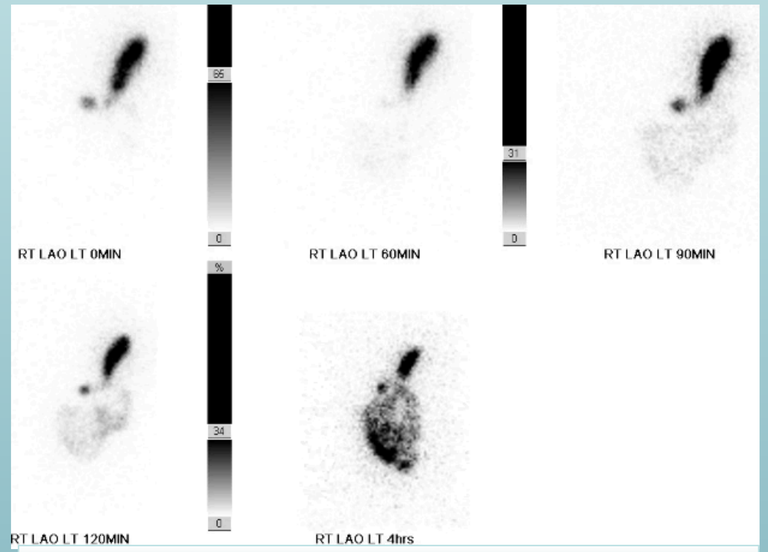
Introduction

This case recognizes gastroparesis as an unusual presentation of AI and its yielding management with steroids. Adrenal inefficiency (AI) can present insidiously and therefore may go undetected until the patient falls ill. Prolonged administration of exogenous glucocorticoids is the most prevalent cause of AI as a consequence of adrenocorticotropin (ACTH) suppression over time.

Case Presentation

A 57-year-old woman with a past medical history of Hailey-Hailey disease, hypertension, and osteoarthritis presented with right upper quadrant pain, nausea, bilious vomiting and decreased oral intake for two weeks. Her vitals were stable on arrival. Physical exam was notable for mild abdominal distension with epigastric tenderness and diffuse superficial skin lacerations on the back and inner left thigh. Laboratory results were significant for albumin 2.3 g/dL (3.5-5.0 g/dL), white blood cells 12.9 k/uL (4.0-10.5), potassium of 3. 9 mEq/L (3.5-5.1), eosinophils 7% (0-6%), glucose 51 (70-105 mg/dL. The patient had recently undergone a gastric emptying study, which revealed a significant delay. A trial of pro-kinetic and antiemetic medication, erythromycin, and compazine did not alleviate her emesis,



Gastic Empyting Study with Significant Delay
- Ejection fraction measured 73% at 240 minutes (normal > 90%).
- T-1/2 measured 181 minutes, (normal T 1/2 = 45 minutes +/- 15 minutes)

and despite continuous intravenous fluids administration, she developed episodes of hypotension. On further questioning, the patient's daughter mentioned that the patient was on chronic steroids for Haily-Haily disease and had abruptly discontinued the medication. Cosyntropin stimulation test revealed baseline cortisol of 1.6 ug/dl (6.7-22.6), which increased to 6.9 ug/dl after 90 minutes and ACTH of 9.0 pg/ml (7.2-63).
This was consistent with adrenal insufficiency likely secondary to prolonged exogenous steroid use and its abrupt discontinuation. The patient was started on intravenous hydrocortisone, and within two days, her hypotension and hypoglycemia resolved with the resolution of nausea and vomiting, and she tolerated oral feeds. The patient was transitioned to 25 mg of hydrocortisone daily at the time of discharge.

Discussion:

Unrecognized adrenal insufficiency is a life-threatening condition. The diagnosis could be frequently overlooked in patients who are not in adrenal crises or have partial adrenal insufficiency. Gastrointestinal manifestations are common in AI, but gastroparesis is not a typical presentation of AI. Recognizing AI as the potential cause for delayed gastric emptying is crucial in avoiding aggressive management like percutaneous endoscopic gastrostomy in patients with unexplained etiology for gastroparesis. This case demonstrates the rapid response and symptom alleviation upon administration of steroids to treat AI and its various forms.