The Incidental Finding of an Incidentaloma

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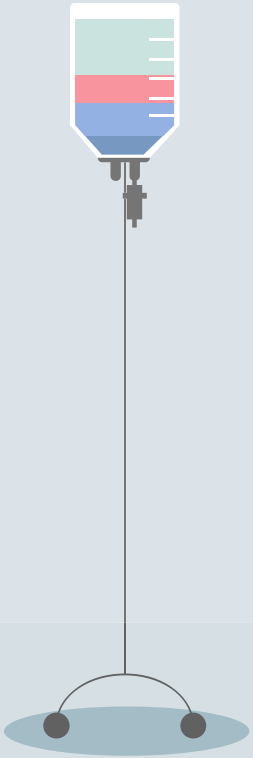


Adrenal Incidentalomas

Adrenal incidentalomas are mass lesions most often discovered by radiological examination. Hormonal abnormalities are also common and are detected by the subtle dysregulation of the hypothalamic-pituitary-adrenal (HPA) axis. Additionally, incidentalomas have the potential to secrete sufficient levels of cortisol to suppress ACTH production.

PATIENT MEDICAL HISTORY

A 60 year old female with a past medical history of stage 4 Chronic Kidney Disease (CKD) and alcohol abuse presented to the emergency department complaining of flank pain, right lower extremity pain, and two recent syncopal episodes.

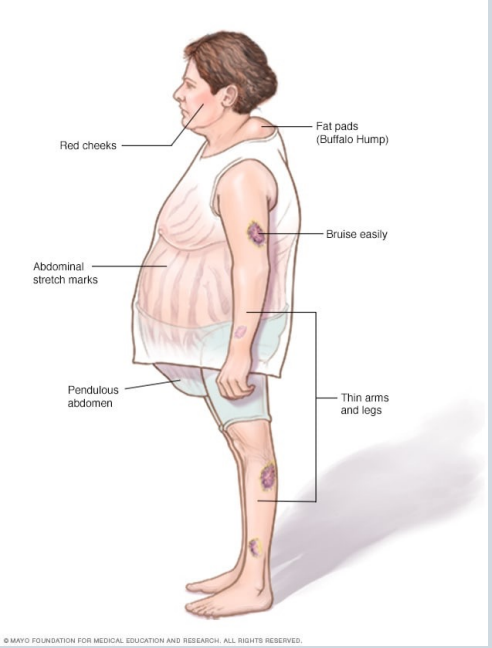
Onset of symptoms was gradual, starting 5 days prior to visiting ED with gradually worsening course since that time. Associated with swelling in extremities, transient headache and urinary retention. She reported 2 syncopal episodes prior to arriving at the ED.

She complained of pain in the right ankle due to cellulitis, 5/10 in severity, stable, associated with swelling and restlessness, alleviated by elevating legs at night, no aggravating factors. Symptoms of shortness of breath improved with pillows at night, and positional changes. Previous studies include chest abdomen and pelvis with contrast and CT of the chest. Patient denied fever, palpitations, abdominal pain

REVIEW OF SYSTEMS

Constitutional: Positive for activity change, appetite change, fatigue and unexpected weight change **(Patient noticed weight gain)**. Negative for chills and fever.
HENT: Negative. Negative for trouble swallowing.
Eyes: Negative for visual disturbance.
Respiratory: Positive for chest tightness and shortness of breath. Negative for cough.
Cardiovascular: Positive for chest pain and leg swelling. Negative for palpitations.
Gastrointestinal: Positive for abdominal distention. Negative for abdominal pain.
Endocrine: Negative.
Genitourinary: Negative.
Musculoskeletal: Positive for joint swelling.
Skin: Positive for wound **(Cellulitis in Right ankle)**.
Neurological: Positive for dizziness, syncope and headaches.
Psychiatric/Behavioral: Positive for sleep disturbance. Negative for agitation and confusion. The patient is not nervous/anxious.

Patient admits to chronic alcohol use about 2 pints/day, vodka/wine



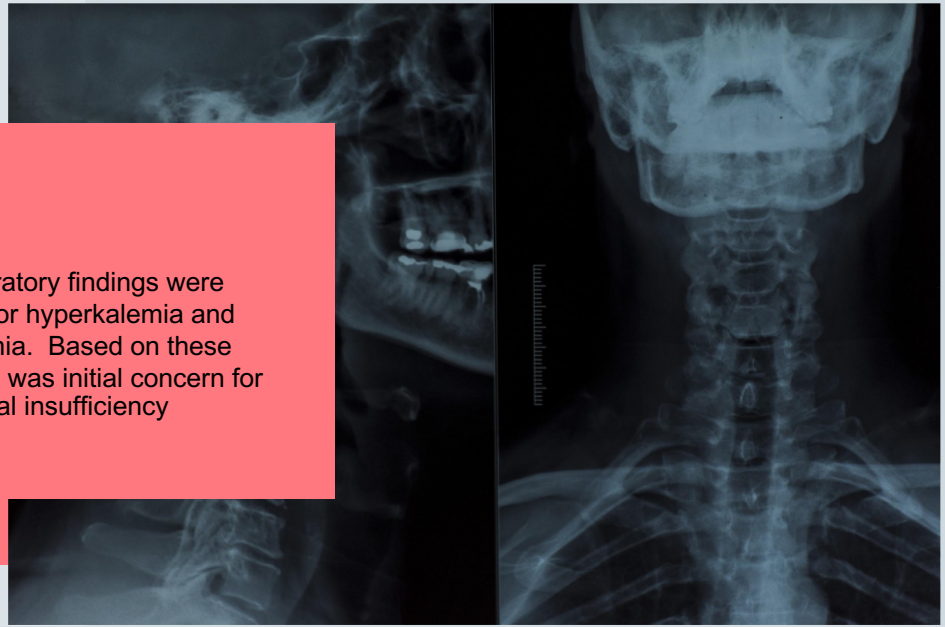
On physical examination the patient had characteristic “moon facies”, a dorsocervical fat pad, and obesity suggestive of hypercortisolism

PHYSICAL EXAMINATION

Constitutional:
General: She is in acute distress.
Appearance: She is obese.
HENT:
Head: Normocephalic and atraumatic.
Eyes:
Pupils: Pupils are equal, round, and reactive to light.
Cardiovascular:
Rate and Rhythm: Normal rate and regular rhythm.
Pulses: Normal pulses.
Pulmonary:
Effort: Respiratory distress present.
Abdominal:
General: Bowel sounds are normal. There is distension.
Musculoskeletal:
General: Swelling present.
Cervical back: Neck supple.
Right lower leg: Edema present.
Left lower leg: Edema present.
Skin:
General: Skin is warm.
Findings: Rash present.
Comments: **Patient has cellulitis in right ankle. Spider angiomata on chest.**
Neurological:
Mental Status: She is alert. Mental status is at baseline.
Psychiatric:
Mood and Affect: Mood normal.

RESULTS

Initial laboratory findings were significant for hyperkalemia and hyponatremia. Based on these findings, there was initial concern for adrenal insufficiency

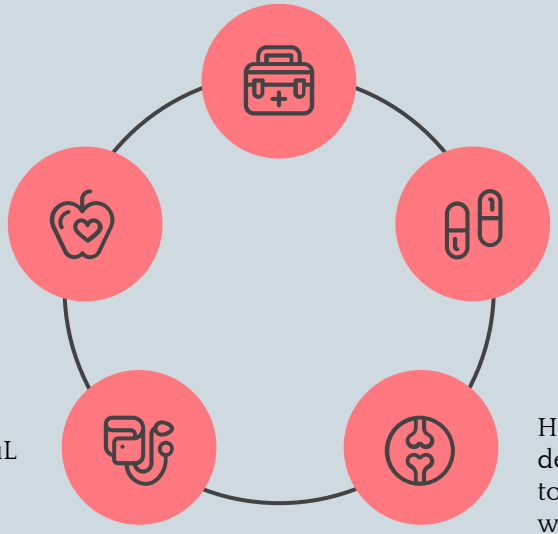


CT of the abdomen and pelvis was performed and demonstrated a right adrenal mass that had increased in size from previous imaging in 2010.

DIAGNOSIS

Hospital day 2: Morning cortisol level on hospital day 2 was 57.6 ug/dL

CT of the abdomen and pelvis demonstrated a right adrenal mass that had increased in size compared to previous imaging in 2010.



Hospital day 3: Morning cortisol after 1 mg Dexamethasone at midnight was remained elevated at 21.5 ug/dL

ACTH was reduced at <1.5 pg/uL

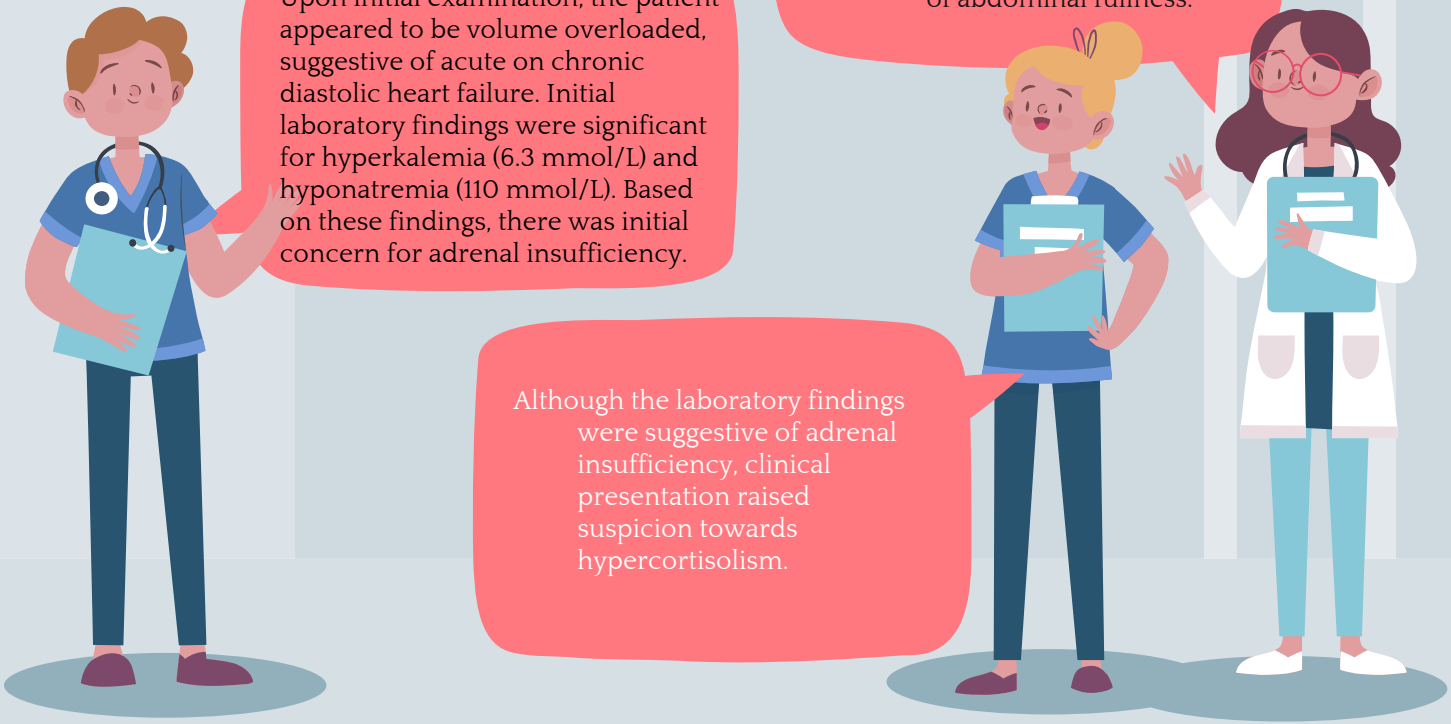
Hospital day 4: High dose dexamethasone 8 mg at midnight failed to suppress cortisol, morning cortisol was 10.6 ug/dL

DISCUSSION

Upon initial examination, the patient appeared to be volume overloaded, suggestive of acute on chronic diastolic heart failure. Initial laboratory findings were significant for hyperkalemia (6.3 mmol/L) and hyponatremia (110 mmol/L). Based on these findings, there was initial concern for adrenal insufficiency.

Failure to suppress cortisol at both low dose and high dose dexamethasone corresponded with the patient's reported symptoms of worsening lethargy, weight gain and feelings of abdominal fullness.

Although the laboratory findings were suggestive of adrenal insufficiency, clinical presentation raised suspicion towards hypercortisolism.



CONCLUSIONS

This case illustrates the critical importance of thorough clinical examination and history taking in the presence of confounding laboratory findings. Although the laboratory findings were suggestive of adrenal insufficiency, clinical presentation pointed towards hypercortisolism.

Our patient will be followed by outpatient Endocrinology for further workup and treatment for Cushing's syndrome.

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THANKS

Does anyone have any questions?