

Rapid-Fire: Hypercalcemia

Angela Irene Carrick, DO*, Holly Briann Costner, DO

KEYWORDS

- Hypercalcemia • Malignancy • Endocrine • Treatment • Emergency medicine
- Metabolic emergency

KEY POINTS

- Hypercalcemia is most commonly due to hyperparathyroidism and malignancy but can be caused by medications and supplements, other endocrine disorders, and rheumatic disease.
- The acuity of development and degree of calcium elevation determines the extent of symptoms, which range from asymptomatic to coma.
- Once identified, it is necessary to confirm true hypercalcemia because it can be altered by serum albumin levels and pH.
- Treatment will vary by patient presentation and may require only follow-up in an outpatient setting for asymptomatic hypercalcemia or intensive care unit admission with a multispecialty approach for the comatose patient.
- The mainstay for emergency treatment is intravenous fluid hydration. Medications affecting calcium release and uptake can be used to further augment the level.

CASE: ALTERED MENTAL STATUS

Pertinent history: A 60-year-old man presents to the emergency department (ED) with confusion, hallucinations, and general weakness. His wife states the patient has not been himself for the last 1 to 2 weeks. He has had episodes of hallucinations of little pink feet running around. He has associated anorexia and decreased oral intake with a history of a 20 pound (9 kg) weight loss in the last 2 months. He has recently been treated for dental pain with amoxicillin by his primary doctor. He had right ankle surgery 2 to 3 months ago for pin and plate removal in which the bone was described as mush. Since the surgery, the patient has been on a progressive decline. He also complains of atraumatic right shoulder pain.

Social History: former smoker, denies alcohol or drug use.

Past Medical History: HTN, kidney stone.

Past Surgical History: ankles bilateral, lithotripsy.

Medications: lisinopril and hydrochlorothiazide, hydrocodone.

Disclosure Statement: The authors have nothing to disclose.

Emergency Medicine Residency, Norman Regional Hospital, 901 North Porter, Norman, OK 73071, USA

* Corresponding author. 6750 Belmar Circle, Norman, OK 73071.

E-mail address: aicarrick@me.com

Emerg Med Clin N Am ■ (2018) ■-■

<https://doi.org/10.1016/j.emc.2018.04.008>

0733-8627/18/© 2018 Elsevier Inc. All rights reserved.

emed.theclinics.com

Pertinent physical examination: temperature 36.7°C, blood pressure 91 over 57, heart rate 103, RR 20, Oxygen Saturation 96% on room air.

General: drowsy but arousable to verbal stimuli. He answers questions with minimal assistance and follows commands.

HEENT: PERRL, tympanic membranes clear, gingival swelling near left lower molar, posterior pharynx appears normal.

Neck: supple and nontender without lymphadenopathy. No nuchal rigidity.

Respiratory: clear to auscultation without retractions.

Cardiovascular: regular rhythm with mild tachycardia.

Gastrointestinal: soft, nontender, no masses. Bowel sounds normal.

Neurologic: cranial nerves 2 to 12 grossly intact. Strength is 5 out of 5 in upper extremities and 4 out of 5 in lower extremities. Sensation intact bilaterally without dermatomal sparing. Grips are equal. Performs finger to nose testing without ataxia. Speech is slurred.

Skin: warm and dry without rash.

Musculoskeletal: the right shoulder is mildly tender anteriorly and with normal range of movement. He is unable to hold the right upper extremity up against gravity secondary to pain. No neuromuscular deficits of the upper and lower extremities.

DIAGNOSTIC TESTING

Imaging

Laboratory assessment: [Table 1](#).

Computed tomography, head: total opacification of the sphenoid sinuses with some bony erosion.

Chest radiography: negative.

Electrocardiogram: sinus rhythm rate 92, PR 194, QRS 112, QTC 467, nonspecific T wave abnormality.

Clinical course: intravenous (IV) fluids and furosemide were initiated, and nephrology was consulted for the patient's profound hypocalcemia. He was admitted to the intensive care unit for further management.

Laboratory Assessment	Emergency department	Day 6
White blood cell count (WBC)	8.1 10 ⁹ /L	5.0
Hemoglobin	11.2 mmol/L	9.6
Sodium	126 mmol/L	130
Potassium	3.0 mmol/L	3.7
Creatinine	1.99 mg/dL	2.59
Glucose	118 mg/dL	101
Albumin	3.2 g/dL	2.6
Calcium	16.8 mg/dL	9.6
Magnesium	1.7 mg/dL	1.8
Drug screen	Opiates positive	—
Urinalysis	10–20 WBC moderate bacteria	—
Lumbar puncture	Negative	—

Download English Version:

<https://daneshyari.com/en/article/8718370>

Download Persian Version:

<https://daneshyari.com/article/8718370>

[Daneshyari.com](https://daneshyari.com)