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Jawad Noor MD
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Xiaolong Liu MD
Liang Sun MD

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1,25-dihydroxyvitamin D mediated hypercalcemia as an initial presentation in a patient with undiagnosed B-cell non-Hodgkin’s lymphoma

Ranjit Banwait M.D.1,2; Jawad Noor M.D.1,2; Jing He M.D.1,2; Xiaolong Liu, M.D.1; Liang Sun M.D.1
1 North Florida Regional Medical Center, Gainesville, FL; 2 University of Central Florida College of Medicine, Orlando, FL

Introduction

• In non-Hodgkin’s lymphoma the findings of hypercalcemia as an initial presentation is extremely rare (<3% of cases). Here we report a 67-year-old man who presented with ST changes secondary to hypercalcemia in the setting of B-cell lymphoma.

Case Presentation

A 67-year-old Caucasian male was transferred from outside hospital for suspected ST elevation myocardial infarction (STEMI). He reported chest discomfort and shortness of breath at presentation. Patient’s past medical history included coronary artery disease status post stents 2 years ago, hypertension, and hyperlipidemia.

• Associated symptoms include 3 week history of generalized weakness, confusion, decreased appetite, 15 lbs unintentional weight loss.

• Physical exam was significant for dry mucosal membranes and poor skin turgor. Cardiovascular exam was normal, and no lymphadenopathy or organomegaly was palpated.

• Vitals were within normal limits.

• EKG showed ST elevation in inferior leads with ST depression in lateral leads. Patient was given aspirin 325mg and started on IV heparin drip however this was discontinued by Cardiology as it was deemed to be chronic ST changes. Additionally, serial troponins-I were also negative.

• Incidentally, on initial laboratory corrected hypercalcemia was noted (16.0 mg/dL).

• On further evaluation parathyroid hormone (PTH) was appropriately suppressed (6.7 pg/mL) ruling out primary hyperparathyroidism.

• To investigate this non-PTH mediated hypercalcemia, parathyroid hormone related peptide (PTHrP), 25-hydroxyvitamin D, and 1,25-dihydroxyvitamin D levels were sent. Both PTHrP and 25-hydroxyvitamin D were normal, however, 1,25-dihydroxyvitamin D was marked elevated (238.5 pg/mL).

• Other relevant testing included negative serum protein electrophoresis and skeletal survey which was unrevealing of any lytic lesions ruling out multiple myeloma.

Discussion & Conclusion

• This patient presented with 1,25-dihydroxyvitamin D mediated hypercalcemia in the setting of DLBCL.

• Vitamin D-mediated hypercalcemia only accounts for 1-2% of lymphoma and leukemia cases.

• In hypercalcemia of undetermined origin, hematological malignancies should be considered a possibility.

• Imaging for underlying organ involvement and bone marrow biopsy/aspirate should be performed.

References
