Recurrent Hypercalcemia as an Initial Presentation of Large B-Cell Lymphoma

Syed Muhammad Hussain Zaidi[1];Gabriel Anibal Ramos, MD[2]; Mishouri Paul, MD[3]; Prodip Paul, MD[3]; Koushik Paul[4;], Namita Sharma[3;]

1. The Wright Center for Graduate Medical Education, Scranton, PA 2. University of Virginia Health System 3. Geisinger Community Medical Center 4. General Health Services, Bangladesh

Introduction

- Hypercalcemia is found in multiple malignancies including solid tumors. Hypercalcaemia as the only manifestation of B-cell lymphoma is seen very rarely. (1)
- Here we present a case of recurrent hypercalcemia in large B-cell lymphoma

Methods

- A 68-year-old female with a history of hypertension, hypothyroidism, and hyperlipidemia, visited the emergency department due to generalized weakness, dizziness, and decreased appetite
- She mentioned an unintentional weight loss of 23 lbs in the preceding two months, and her family observed recent bouts of forgetfulness
- Labs indicated severe hypercalcemia (calcium at 18 mg/dL), significant hypokalemia (potassium at 2.2 mmol/L), and acute kidney injury (AKI) with BUN at 30 mmol/L and creatinine at 2.3 mg/dL
- The intervention involved intensive IV hydration, potassium supplementation, and a temporary cessation of her hydrochlorothiazide and ACEi medications
- A nephrology assessment revealed suppressed PTH. Tests including 25-hydroxy vitamin-D, 1-25 hydroxy vitamin-D, ACE level, PTHrp, UPEP, SPEP, and serum-free chains returned typical results.
- Given these outcomes, a malignancy was suspected, and further testing was initiated. CT scans of the chest, abdomen, and pelvis (without) IV contrast due to her AKI) only identified mild splenomegaly.
- Despite a comprehensive evaluation by a hemato-oncologist, her condition remained undiagnosed
- Her hypercalcemia receded, and she was released with an outpatient follow-up scheduled. Within six weeks, she was readmitted twice due to hypercalcemia, found in outpatient lab work.
- An endocrinologist found no evidence of myeloma, thyroid disease, granulomatous disorders, sarcoidosis, or hypervitaminosis D. On a subsequent admission, a hemoglobin drop to 8.4 mg/dL was noted.
- An endoscopy discovered a potential malignant gastric tumor, leading to a biopsy. A CT scan (with IV contrast) then unveiled a large tumor (13 x 11 cm) in the left upper quadrant, presumed to originate from the stomach, exhibiting signs of necrosis and spleen invasion. The stomach biopsy identified it as a B-cell lymphoma, specifically, diffuse large B-cell lymphoma.

Discussion

- While hypercalcemia is typically associated with adult T-cell lymphomas/leukemia and solid tumors due to elevated PTHrP production, it's less frequent in non-Hodgkin's B-cell lymphomas, appearing in under 10% of cases. (2)
- Notably, its presentation in non-Hodgkin's lymphoma cases is exceedingly rare, estimated at less than 3%. A mere handful of case reports document hypercalcemia as a primary symptom of B-cell lymphoma.
- Uniquely, in this case, the patient manifested recurrent hypercalcemia, pointing to an underlying large B-cell lymphoma. (3)

Conclusion

- In cases of unexplained, recurrent hypercalcemia, medical professionals should consider the potential of underlying B-cell lymphoma, ensuring that prompt diagnostic procedures and treatments are employed.

References

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