Sarcoidosis Mimicking Multiple Myeloma.

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Sarcoidosis Mimicking Multiple Myeloma

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BACKGROUND

- Sarcoidosis is a systemic disease of unknown etiology characterized by non-caseating granuloma formation affecting primarily young individuals aged 20-39.[4]
- In over 90 percent of the cases sarcoidosis targets the lungs or the related lymph nodes but it can affect any organ system.[4]

Table 1. Manifestations of Sarcoidosis

Pulmonary	>90%
Cardiac	5%
Cutaneous	20-35%
Neurological	5%
Ocular	10-60%
Osseous	3-13%
Hypercalemia	10-20%
Renal	35-50%
Gastrointestinal/Hepatic	50-80%

CASE PRESENTATION

- A 70-year-old Caucasian female presented to the emergency department with symptoms of confusion and low back pain. She was found to have an elevated calcium level of 14 mg/dL, creatinine of 3.8 mg/dL with a baseline of 1.3 mg/dL, and a hemoglobin of 10 g/dL with a baseline of 12 g/dL.
- X-ray imaging of the lumbar spine was concerning for a compression fracture with osteolytic changes.
- She was treated with intravenous hydration and calcitonin with correction of her renal and electrolyte abnormalities.
- Her presentation raised concern for multiple myeloma and work up was initiated.
- Surprisingly, the bone marrow biopsy demonstrated granulomatous inflammation.
- In addition, laboratory data revealed SPEP/UPEP negative for monoclonal gammopathy, as well as elevated 1,25-dihydroxyvitamin D and angiotensin converting enzyme (ACE) levels.
- A skeletal survey was performed for completion and was unremarkable for additional bony abnormalities.
- Additional laboratory data performed in context of hypercalcemia work up was also unrevealing as seen in Table 2.
- Inconsistent with the diagnosis, CT of the chest was negative for parenchymal or lymph node involvement of the pulmonary system.
- Patient also displayed potential cardiac manifestations of her disease given history of conduction abnormalities requiring a pacemaker as well as a diagnosis of diastolic dysfunction.
- This information supported the diagnosis of sarcoidosis.

Table 2.

Parathyroid Hormone	6.2 pg/mL
Parathyroid Related Peptide	3.4 pml/L
Angiotensin Converting Enzyme	89 U/L
1,25-OH	143/pg/mL
25-OH	25 ng/mL
Alkaline Phosphatase	69 U/L

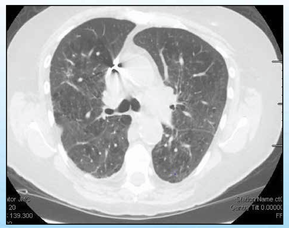

Figure 1. CT chest without evidence of pulmonary sarcoidosis

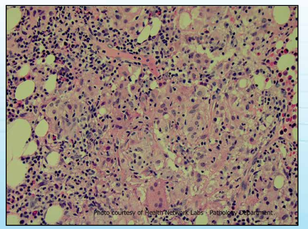

Figure 2. Granulomatous Inflammation

FOLLOW-UP

- Patient was discharged on a year long steroid taper without recurrence of hypercalcemia during the course of the year.
- Her hemoglobin increased from 10 g/dL on initial presentation to her baseline of 12 g/dL.

DISCUSSION

- Isolated extrapulmonary manifestations of sarcoidosis are rare and present in less than 10 percent of reported cases.[1]
- Bone marrow involvement has only been described in less than 5 percent of cases.[3]
- This is potentially due to a low number of bone biopsies performed and could underrepresent the true incidence of bone marrow sarcoidosis.[3]
- Sarcoid can present as sclerotic or lytic lesions on radiographic data.[6]
- Hematologic abnormalities can be seen in up to 30 percent of cases.[5]
- Steroids are first line therapy for any manifestation of sarcoidosis.[2]
- While there is a broad differential for granulomatous lesions the clinical picture of the patient presented is less likely a result of other infectious, vasculitic, neoplastic, or chemical/environmental etiologies.

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