My Back Hurts, A Case of Sarcoid Myopathy

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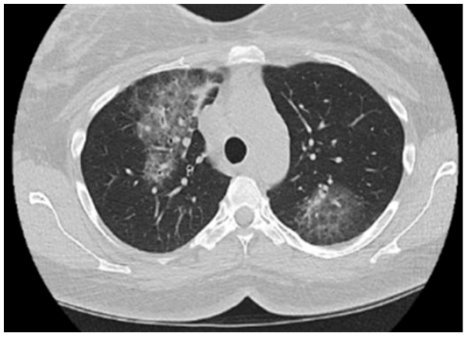
Introduction

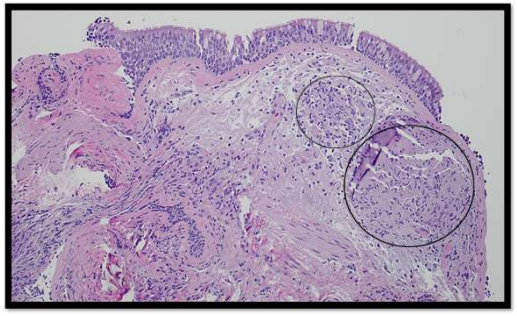
- *Sarcoidosis* is a systemic inflammatory disorder involving more than one organ system.
- The etiology of sarcoidosis remains undetermined; the disease can exhibit a wide range of clinical manifestations; the diagnosis is often made by excluding other processes.
- Its histological hallmark is the noncaseating granulomata that disrupt the architecture and function of the tissue involved.
- Glucocorticoids remain the only effective therapy for active sarcoidosis when treatment is mandated.

Case Description

- A 37 y/o female initially presented for evaluation of back pain. The patient reported sudden onset of low back pain that would not resolve.
- CT chest showed multifocal infiltrates for which empiric antibiotic therapy for Community-Acquired Pneumonia was initiated, and she symptomatically improved with treatment during admission.
- Subsequent follow-up showed that infiltrates failed to resolve, she underwent serologic testing and bronchoscopy, and received treatment for pain with gabapentin; during her clinical course she developed Bell's palsy on the left side, and significant weakness of the left eye was noted without evidence of third nerve palsy.
- On review of systems, the patient denied shortness of breath, reported occasional dry cough, trouble staying warm, dysphagia, xerostomia, xeropthalmia requiring the use of artificial tears, and admitted to debilitating back and joint pain, with proximal muscle weakness of distal lower extremities, and numbness and tingling in hands and elbows.
- Initial workup showed a positive ANA of 1:1280 in a speckled pattern and positive Anti – SSA 52 kD of 149.
- Rheumatology evaluation was requested for possible connective tissue disease-related interstitial lung disease; however, given the patient's proximal muscle weakness of distal lower extremities, neuropathy symptoms, and significantly positive anti – SSA 52 kD, inflammatory myositis such as polymyositis was also on the differential.
- Lung biopsy showed noncaseating granulomas raising suspicion for sarcoidosis and thus possible neurosarcoidosis given her neurological symptoms, although the ACE level was unremarkable.
- The patient underwent muscle biopsy, which showed granulomatous tissue consistent with sarcoid myopathy rather than polymyositis; prednisone and azathioprine were initiated.



Clinical Image: CT chest showed bilateral multi-lobar infiltrates, mostly ground-glass opacities.



Lung biopsy pathology report: Non-caseating granulomas with multinucleated giant histiocytes
Photo credit: St Luke's Department of Pathology

Discussion

- Sarcoidosis affects multiple systems, and clinical muscular involvement is rare; only three clinical patterns have been described: nodular, most commonly seen in young adults, acute myositis, and pseudo myopathic, predominant in the elderly.
- In addition, it has been reported that only a few patients may show granulomatous muscle lesions without sarcoidosis features in other organs.
- Muscular manifestations most commonly occur in the lower extremities proximal more than distal.
- Diagnostic workup includes muscle enzymes, EMG, and muscle biopsy; however, normal enzymes and EMG do not exclude muscular involvement in sarcoidosis.
- This case suggests considering sarcoidosis as a differential diagnosis in the setting of radiologic findings and new onset of myopathy/muscle weakness, which would be confirmed by muscle biopsy.

References

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