CLINICAL VIGNETTE

When Sarcoidosis Presents Itself

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A 77 year-old-male presented complaining of bilateral leg pain and weakness in the setting of persistent skin lesions. The patient had a remote history of prostate cancer and a fall many years prior which had resulted in a subdural hematoma. He had visited his previous primary care doctor and had been seen at urgent care clinics on multiple occasions for his presenting symptoms. Within the last several months he had been given antibiotics for leg swelling presumed to be cellulitis. When he presented to clinic, he was in the process of completing a two week course of oral steroids for what he described as "nonspecific inflammation of his body based on labs." Prior testing was significant for a MRI of the lumbar spine which showed stable degenerative disc disease, as well as an elevated C3, c-reactive protein (CRP), and erythrocyte sedimentation rate (ESR). At this point, the patient's main concern was progressively worsening bilateral leg pain and a diffusely painful rash on his upper extremities. On review of systems, he noted a 30 pound unintentional weight loss over the last several months.

Vital signs were unremarkable. On physical examination, the patient was noted to have 1-2 centimeter circular, raised, tender, subcutaneous nodules of his bilateral upper extremities. He also had significant bilateral lower extremity edema, left greater than right. An urgent ultrasound of the left lower extremity was positive for an occlusive DVT of the left popliteal, peroneal, gastrocnemius, and posterior tibial veins. He was started on rivaroxaban.

The patient was referred to rheumatology for further evaluation given his presenting symptoms of weakness, diffuse subcutaneous tender rash, and unintentional weight loss in the setting of positive inflammatory markers. At his rheumatology appointment, he was severely weak and was subsequently admitted to the hospital for an expedited work up of his symptoms.

During his hospitalization, infectious, oncologic, and autoimmune evaluations were completed. A skin biopsy showed septal panniculitis with superficial and deep perivascular and periadnexal mixed inflammatory infiltrate. Erythema nodosum was the major consideration given these findings.

During the hospitalization, an EGD was positive for gastritis. A colonoscopy revealed diverticulosis and one benign polyp. Chest CT revealed bilateral upper lobe ground glass opacities and partially calcified mediastinal lymphadenopathy. Bronchoscopy with bronchoalveolar lavage and several biopsies were all negative for malignancy. An incidental thyroid nodule was found which was biopsied and found to be negative as well. At the point of discharge, the working diagnosis was sarcoidosis.

Discussion

Sarcoidosis is a granulomatous inflammatory disease that can cause disease in multiple organ systems. The typical organs affected include the lung, skin, lymphatics, eye, and liver. The exact etiology of sarcoidosis is not fully understood. Sarcoidosis has a prevalence rate between 1 and 40 per 100,000 people in the United States.[1] When adjusted for age and geographic location, the incidence of sarcoidosis is three times higher in African Americans than Caucasians.[2]

The most common presenting clinical symptoms are weight loss, weakness, fever, cough, shortness of breath, decreased appetite, skin lesions, parotid gland swelling, and visual changes. Sarcoidosis can present at a wide range of ages, but is most commonly found in individuals less than 40 years of age.

Because sarcoidosis can affect multiple organ systems, a comprehensive medical evaluation is required to confirm the diagnosis. Laboratory testing should include a metabolic panel including liver function tests, blood cell counts, urinalysis, ESR, CRP, HIV, and tuberculosis screening. Other serum testing such as angiotensin converting enzyme, adenosine deaminase, serum amyloid-A, and soluble interleukin-2 are still being investigated with limited and conflicting clinical use.[3] Pulmonary imaging and testing is an essential component in the diagnosis of sarcoidosis. The different testing modalities can range from chest x-ray or high resolution CT scan to gallium scans, pulmonary function tests and bronchoscopy with biopsies. The diagnosis of sarcoidosis is established with histology demonstrating granulomatous disease combined with laboratory, radiographic, and clinical symptoms consistent with sarcoidosis.

Once the diagnosis of sarcoidosis is made, it is important that extrapulmonary manifestations are investigated to ensure this multiorgan disease is treated appropriately. Treatment with oral glucocorticoid therapy is indicated when symptoms or end-organ damage develops.

As illustrated in this case, sarcoidosis can present with a multitude of clinical symptoms. When evaluating a patient with a similar presentation, it is imperative to keep a broad differential diagnosis that includes sarcoidosis as well as other diseases that could be causing a comparable constellation of symptoms.

REFERENCES

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