ABSTRACT

Introduction: Sarcoidosis is an inflammatory disease that affects multiple organs in the body, but mostly the lungs and lymph glands. It is one of the leading causes of inflammatory eye disease. The most common ocular manifestations are uveitis and conjunctival involvement. However, it can involve any part of the eye and its adnexal tissues and cause episcleritis/scleritis, eyelid abnormalities, conjunctival granuloma, optic neuropathy, lacrimal gland enlargement and orbital inflammation. Rarely, it can present as bilateral choroidal granuloma. However, choroidal granuloma without other signs of intraocular inflammation and/or systemic involvement is an extremely rare manifestation.

Case Description: A 38-year-old African American woman came to the ophthalmology service with the primary complaint of decreased visual acuity in her right eye and right eye pain. Upon examination, a serous macular detachment secondary to central serous retinopathy and a solitary choroidal granuloma were observed. On physical examination, she had eyelid enlargement and facial papules. Laboratory findings showed elevated ACE, while ANA, ANCA, Lyme, Syphilis, anti-dsDNA, QuantiFERON, RF, IL-2 R and lysozyme were all negative. A CT of the chest showed only mildly increased mediastinal lymph nodes in the right paratracheal region. Ophthalmology, rheumatology, and pulmonary teams were involved in further management. Treatment was started with daily oral prednisone and consequent addition of methotrexate which eventually resulted in reduced size of granuloma, resolution of the eye pain and improvement in vision.

Discussion: There is no single way to diagnose sarcoidosis. Primary occurrence is, most often, between 20 and 40 years of age, with women being diagnosed more frequently than men. The disease is 10 to 17 times more common in African Americans than in Caucasians. The main diagnostic tools include Chest X-rays and high-resolution CT scan to look for pulmonary infiltrates or lymphadenopathy. Some patients with sarcoidosis may have elevated serum calcium levels, angiotensin converting enzyme (ACE) and/or lysozyme. The gold standard for the diagnosis is a tissue biopsy. However, suspected lesions may not be easily accessible, as in this case where only the eye was affected.
Ocular sarcoidosis can involve any part of the eye and its adnexal tissues. A solitary choroidal granuloma is one of the manifestations recognized in sarcoidosis, though the much more common manifestation is bilateral uveitis (reported in 30–70% of cases) and conjunctival nodules (found in 40% of cases). Ophthalmic manifestations can be isolated but most patients have evidence of systemic involvement at the time of the initial examination and have bilateral ocular presentation, unlike this patient who had solitary, unilateral choroidal granuloma without other signs of intraocular inflammation and systemic involvement.

**Conclusion:** There are several cases of sarcoidosis reporting choroidal granuloma with either other ocular involvements and/or associated hilar lymphadenopathy and other systemic manifestations. This patient is a rare case where the sole presentation of sarcoidosis is a unilateral solitary granuloma. Biopsy was not feasible due to location of the lesion. This case shows the importance of a multi-disciplinary approach in rare cases where the gold standard for diagnosis is not possible.

**COMPETING INTERESTS**
The author has no competing interests to declare.

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