A Case of Sarcoid Uveitis Diagnosed With Mammography

Madison Riccardi BS[1], Cory Christensen DO[2], Rebecca Swan MD[3], Robert Swan MD[2]

SUNY Upstate Medical University

[1]Norton College of Medicine, [2]Department of Ophthalmology, [3]Department of Radiology

Introduction

Sarcoidosis is an inflammatory disease in which granulomas form throughout the body, most commonly affecting the lungs and lymph nodes. The disease also frequently involves the eyes, skin, heart, and nervous system. Ocular involvement occurs in 20-30% of cases, mainly affecting the uveal tract (sarcoid uveitis).[1] With such variety of manifestations, clinical suspicion is often the driving force behind diagnosis. Characteristic findings include the presence of tattoo swelling and elevated angiotensin-converting enzyme (ACE).[2,3] In cases of high clinical suspicion, a CT Thorax has a reported 89% sensitivity and 78% specificity.[4] However, definitive diagnosis requires a biopsy.[2]

Case Presentation

- A 44-year-old female with a 10-year history of chronic pars planitis (intermediate uveitis) OU treated with prednisolone drops was referred for evaluation on chronic CME.
- Ophthalmic exam revealed quiet anterior segment with trace vitreous haze and 1+ vitreous cell OU and peripheral subvenous punctate atrophy.
- OCT Macula (**Fig. 1A**) demonstrated CME (OS>OD). Angiography revealed optic nerve leakage with diffuse patchy leakage in the periphery (**Fig. 2A,B**).
- Recent labs revealed HLA-B8, high-normal ACE (67, normal 12-68).
- Clinically, we were very suspicious for sarcoidosis. However, CT Thorax was negative for lymphadenopathy.
- Concurrently, mammography (**Fig. 3A,B**) revealed an enlarged axillary lymph node.
- Lymph node biopsy revealed multiple small non-necrotizing granulomas and hyalinized fibrous tissue with calcifications (Schaumann bodies), consistent with sarcoid granulomas.
- She was subsequently treated with the antimetabolite immunosuppressant, CellCept (Mycophenolate mofetil) 1 g PO BID, which controlled the uveitis and led to resolution of the CME (**Fig. 1B**).

Testing

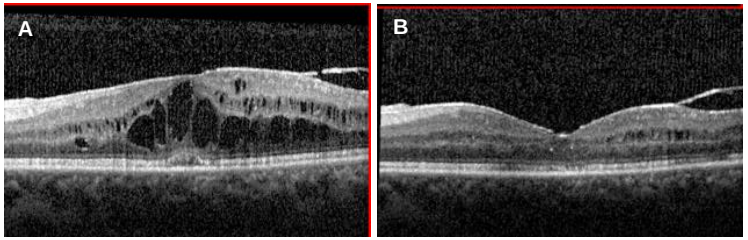

Figure 1A: OCT Macula pre-treatment. Optic nerve leakage and CME OS.

Figure 1B: OCT Macula 2.5 mo post-treatment with CellCept. Remediated uveitis OS.

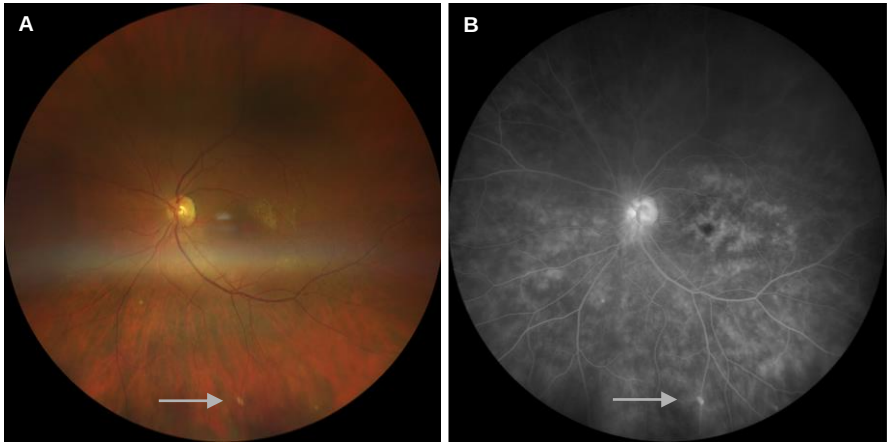

Figure 2A,B: Fundus photograph and angiogram before treatment. Optic nerve leakage with diffuse patchy leakage in the macula and periphery OS.

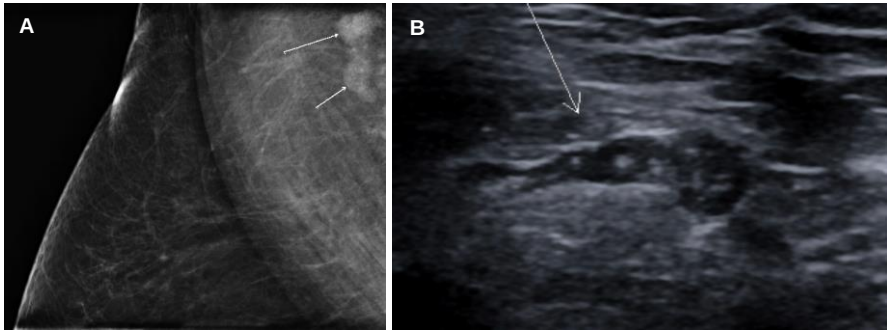

Figure 3A: Diagnostic mammogram view of axillary tail. Axillary lymph nodes with internal microcalcifications.
Figure 3B: Ultrasound of axillary lymph node. Calcifications within the cortex.

Discussion

Sarcoidosis is often difficult to diagnose due to nonspecific ocular inflammatory signs. While CT Thorax typically has high diagnostic accuracy for sarcoidosis, it still has a small false-negative rate.[4] Of uveitis patients who progress to systemic sarcoidosis, 50% do so within the first 5 years of uveitis onset.[5] Therefore, it is recommended that patients be monitored for at least 5 years after diagnosis.[5]

Distinctive to this case, an abnormal contemporaneous mammogram began an unusual path that led to the discovery of sarcoidosis through biopsy of the axillary lymph nodes. Breast involvement is uncommon and axillary lymphadenopathy is often confused with benign or malignant tumors.[6]

Conclusion

A high index of suspicion should be kept regarding patients exhibiting characteristic ocular findings, such as peripheral punctate atrophy. Patient education and self-surveillance are also key to timely diagnosis.

References

1. Pasadhika S, Rosenbaum JT. Ocular Sarcoidosis. *Clin Chest Med*. 2015;36(4):669-683.
2. Kraaijvanger R, Janssen Bonás M, Vorselaars ADM, Veltkamp M. Biomarkers in the Diagnosis and Prognosis of Sarcoidosis: Current Use and Future Prospects. *Front Immunol*. 2020;11:1443. Published 2020 Jul
3. Hedfors E, Lindström F. HLA-B8/DR3 in sarcoidosis. Correlation to acute onset disease with arthritis. *Tissue Antigens*. 1983;22(3):200-203.
4. Youssef G, Leung E, Mylonas I, et al. The use of 18F-FDG PET in the diagnosis of cardiac sarcoidosis: a systematic review and metaanalysis including the Ontario experience. *J Nucl Med*. 2012;53(2):241-248.
5. Ma SP, Rogers SL, Hall AJ, et al. Sarcoidosis-related Uveitis: Clinical Presentation, Disease Course, and Rates of Systemic Disease Progression After Uveitis Diagnosis. *Am J Ophthalmol*. 2019;198:30-36.
6. Ojeda H, Sardi A, Totoonchie A. Sarcoidosis of the breast: implications for the general surgeon. *Am Surg*. 2000;66(12):1144-1148.

This study was funded in part by unrestricted grants from Research to Prevent Blindness, Inc. New York, New York and Lions District 20-Y1, Syracuse, New York. No other significant financial interests or relationships to disclosure

SUPPORTED BY Research to Prevent Blindness