RESIDENT ROUNDS: PART III

Cutaneous Sarcoidosis in a Blepharoplasty Scar

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CASE REPORT

A 55-year-old Caucasian female presented to the University of Missouri dermatology clinic for evaluation of new growths on her left eyelid. She noted abrupt onset of the growths 2 months prior to presentation with associated erythema, tenderness, and swelling. No visual changes were reported. She had a history of hypothyroidism, hyperlipidemia, and migraines. She had a surgical history of bilateral blepharoplasty performed approximately 10 years prior. Physical exam showed mild erythema, swelling, and multiple firm 2-4mm papules in a linear array along her left upper eyelid blepharoplasty scar (Figure 1). Her right eyelid was not involved and there were no other significant skin findings. An incisional biopsy was performed.

Histopathologic examination showed nodular aggregations of macrophages, some multinucleate, with admixed lymphocytic inflammation consistent with sarcoidal granulomatous dermatitis (Figure 2). No evidence of micro-organisms was seen on Periodic acid–Schiff Diastase, Brown-Brenn, and Acid-Fast Bacilli stains.

Further work-up including ophthalmic examination, two-view chest radiograph, ACE level, and ECG were all within normal limits. After discussion of the diagnosis and potential treatment options, intralesional triamcinolone acetonide injections were performed. Injections were started at concentrations of 5mg/ml and gradually increased to 40mg/ml every 4 to 6 weeks based on response. The lesions resolved after treatment, but new lesions continued to form. Adjuvant hydroxychloroquine was started recently as well, with the goal of decreasing intralesional steroid treatment frequency.

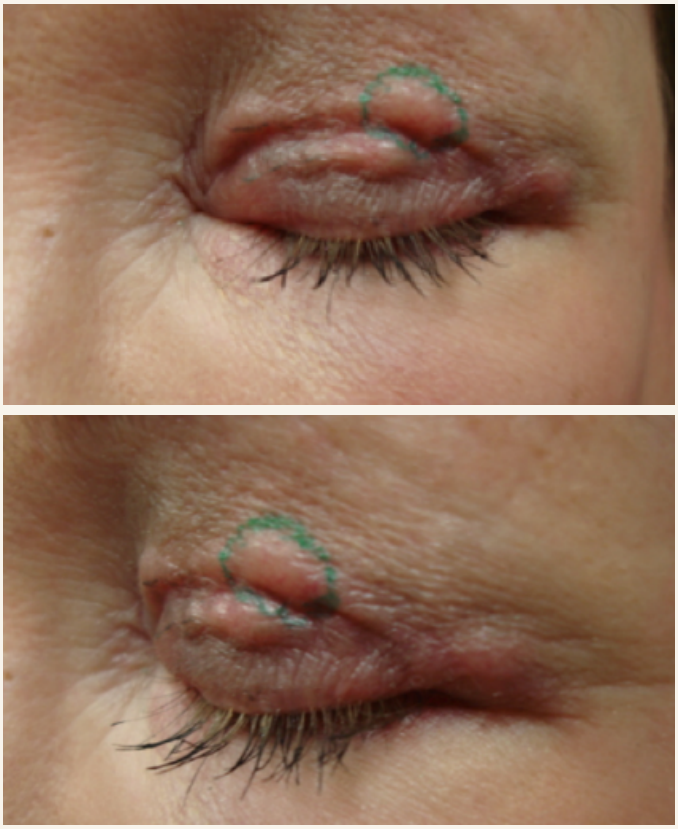
DISCUSSION

Sarcoidosis is a systemic disease that is characterized by non-caseating naked granulomas, with the lungs, lymph nodes, and the skin being the most common organs involved.[1] Skin involvement is the second most common presentation.[2] There are many types of cutaneous sarcoidosis including erythema nodosum, lupus pernio, papules, nodules, plaques, and scar sarcoidosis.[3] The most common cutaneous manifestation is erythema nodosum with incidence ranging from 11-19% of patients with cutaneous sarcoidosis.[4] Unlike erythema nodusum, scar sarcoidosis is relatively rare with incidence ranging from 2.9-25%.[4,5]

Scar sarcoidosis presents as spontaneous development of red-brown induration on typically atrophic or inactive scars.[6] The clinical differential includes hypertrophic scar, keloid,[7] mycobacterium,[3] tuberculoid leprosy, foreign body granulomatous disease,[8] or recurrence of previously resected malignancy.[9] Scar sarcoidosis has been reported to occur as early as 2 months and up to 50 years from the time of injury and can affect different aged scars simultaneously.[10-12] Scar sarcoidosis has been reported to occur in cutaneous scars from venipuncture sites,[13] ritual scarification,[14] pseudofolliculitis barbea,[15] burns,[16] CO2 laser resurfacing for facial scars,[8] and post herpes zoster infection.[10,17] Scar sarcoidosis has even been reported to be associated with internal scars after surgical procedures, as presented in a case after a rhinoplasty.[18] There have been a few reports of eyelid scar sarcoidosis reported in the literature; however, this case is the first we are aware of in the North American literature.[19-22]

> “Scar sarcoidosis has been reported to occur as early as 2 months and up to 50 years m the time of injury and can affect different aged scars simultaneously.”

FIGURE 1. (A & B) Erythema, swelling, and firm papules in linear array along prior blepharoplasty scar (published with patient's permission).

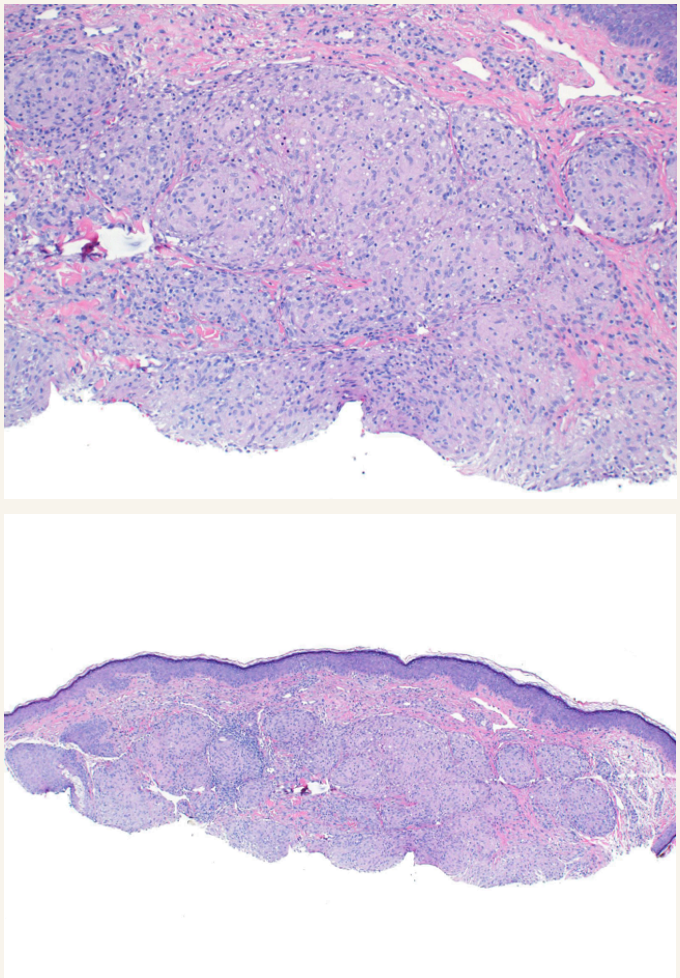


Despite the many clinical scenarios of scar sarcoidosis, it is a specific cutaneous sign of sarcoidosis and is often the first presentation or present at the onset of systemic disease in 30-80% of patients.[5,23] Scar sarcoidosis can be an important cutaneous manifestation; however, it is debated whether it is associated with an increased rate of systemic involvement. This association is difficult to assess due to the limited and often conflicting literature. Most reviews have been in patients already diagnosed with systemic sarcoidosis, one of which showed 40% also had scar sarcoidosis.[4,5] Although frequently present at the onset of systemic sarcoidosis, systemic symptoms can be delayed by up to 3 years as seen in 30% of patients in a review from Spain, further complicating the association.[25] Furthermore, skin evaluations are not usually part of a routine sarcoidosis evaluation, so cutaneous presentations could be missed.[4] There are many case reports with systemic involvement in the setting of scar sarcoidosis, but this could be secondary to a reporting bias.[3,9,12,16-20,24] Therefore, due to the mixed findings, it is prudent to recommend systemic evaluation to decrease any associated morbidity or mortality risk.[18]

DISCLOSURES

The authors have no relevant conflicts of interest.

FIGURE 2. (A & B) Nodular aggregations of macrophages, some multinucleate, with admixed lymphocytic inflammation consistent with sarcoidal granulomatous dermatitis..



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