Surgical management of cutaneous nasal sarcoidosis involving the alar rim

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JC Melong, RD Hart, J Trites, SM Taylor. Surgical management of cutaneous nasal sarcoidosis involving the alar rim. Plast Surg Case Studies 2015;1(2):35-36.

Systemic sarcoidosis is a granulomatous disorder that can affect multiple organs and tissues, resulting in varied clinical presentation. Head and neck manifestations are common and are often referred for appropriate diagnoses and management. Nasal cutaneous involvement, although an uncommon presentation, can result in nasal deformities and/or obstruction significantly impairing a patient's quality of life. Currently available pharmacological agents for the management of cutaneous sarcoidosis have yielded inconsistent results and, in the past, have been associated with disease relapse. Traditionally, surgery has largely been avoided because of the theoretical risk of disease flare-up. In the present report, the authors present a patient with atypical nasal cutaneous sarcoidosis involving the alar rim that was successfully managed with surgical intervention.

Key Words: *Alar rim; Cutaneous sarcoidosis; Sarcoidosis; Surgical excision; Surgical management; Surgical reconstruction*

Sarcoidosis is a multisystemic, noncaseating granulomatous disorder of unknown etiology. The most common manifestation of sarcoidosis is pulmonary disease, although it can affect multiple organs and tissues resulting in varied clinical presentation. Currently, there is no definitive test for the diagnosis of sarcoidosis and it remains a diagnosis of exclusion. Ultimately, sarcoidosis can only be confirmed with biopsy.

Despite the varied clinical presentation of sarcoidosis, head and neck manifestations are common, affecting approximately 10% to 15% of affected patients (1). The most common otolaryngological manifestations of sarcoidosis include cervical lymphadenopathy, ocular lesions, intranasal masses and nasopharyngeal lesions (2). Much less commonly, patients present with nasal cutaneous involvement, which can vary in presentation from small erythematous plaques to large infiltrative lesions causing nasal deformities and/or obstruction (3,4). Due to the uncommon nature of nasal cutaneous sarcoidosis and lack of evidence to guide treatment, patients are often referred for appropriate diagnosis and management.

In the present article, we present a patient with atypical nasal cutaneous sarcoidosis involving the alar rim that was successfully managed with surgical excision and reconstruction.

CASE PRESENTATION

A 62-year-old Caucasian man presented to the head and neck surgery clinic with a long-standing history of pulmonary and cutaneous sarcoidosis managed with hydroxychloroquine. His main complaint on presentation was a nasal lesion along the right alar margin, which had been increasing in size over the past several months and causing increasing difficulties with breathing (Figure 1).

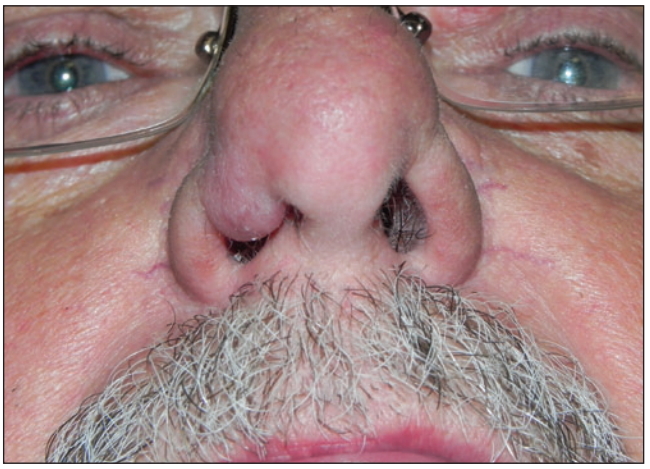

Figure 1) *Preoperative photograph demonstrating right alar margin lesion*

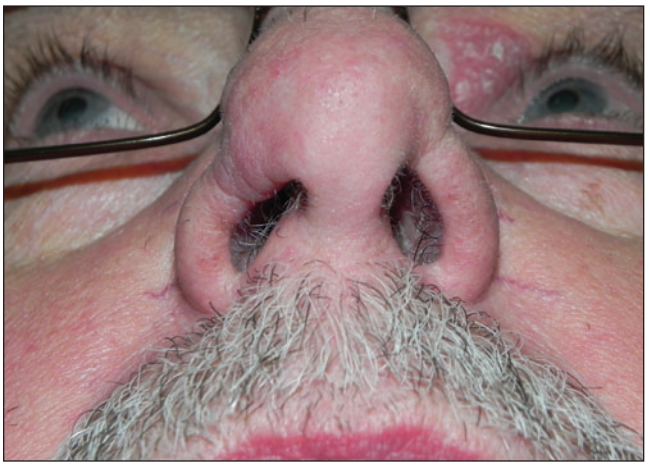

Figure 2) *Postoperative photograph six months following surgical excision and reconstruction*

Physical examination of the patient revealed diffuse erythematous lesions of the face and scalp, which were previously biopsy proven for cutaneous sarcoidosis. Closer examination of the right alar region revealed a pedunculated erythematous lesion approximately 1.5 cm in diameter and causing obstruction of the nasal passage. Maxillary sinoscopy was normal. Biopsy of the lesion revealed diffuse sarcoidal-type granulomatous inflammation of the dermis and subcutaneous tissue consistent with cutaneous sarcoidosis. Special staining for fungi and acid-fast bacilli were negative.

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After a discussion of the different treatment options with the patient, it was decided that nasal resection and reconstruction would be performed. Under local anesthesia, an elliptical excision was performed with local advancement flap reconstruction to open the nasal airway and symmetrically reconstruct the alar margin. Care was taken to ensure no cartilage was excised during the resection. The wound was closed using 6-0 nylon and the patient was advised to keep antibiotic ointment on the incision line until suture removal in one week.

On follow-up at six months, there was no evidence of disease flare-up or relapse (Figure 2). The patient had no complaints and there was an excellent functional result, with the patient's breathing being markedly improved. There was no evidence of nasal tip collapse and rhinoscopy was otherwise normal.

CONCLUSION

Current pharmacological management strategies for cutaneous sarcoidosis include systemic agents, such as corticosteroids and antineoplastics, and local therapies including topical steroid preparations and injections (3-5). Due to the uncommon nature of nasal cutaneous sarcoidosis, there is little evidence to support the use of these agents, which, in the past, have yielded inconsistent results and have been associated with disease relapse. Traditionally, surgery has largely been avoided because of the theoretical risk of disease flare-up. A review of the literature identified a small number of case reports regarding the surgical intervention of nasal cutaneous sarcoidosis, which demonstrated promising results (6,7)

In the present case, we described a patient with nasal cutaneous sarcoidosis who was successfully managed with surgical intervention. Although there is hesitancy to surgically treat patients with sarcoidosis because of the risk of disease flare-up, we present a case of a patient who, at six months, remains in remission following surgical excision and reconstruction.

Although nasal cutaneous sarcoidosis is an uncommon manifestation of systemic sarcoidosis, it can significantly impact a patient's quality of life. With the highly variable clinical course of sarcoidosis and so few effective options being available for the long-term management of nasal cutaneous sarcoidosis, we present a case in which surgical intervention was cosmetically and functionally successful.

ACKNOWLEDGEMENTS: Jonathan Melong held a summer studentship with funding provided by the DMRF Bergmann-Porter endowment.

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