Scalp sarcoidosis: a sign of systemic sarcoidosis

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Abstract
Sarcoidosis is a systemic disease often with cutaneous manifestations. Scarring alopecia of the scalp is a rare form of cutaneous sarcoidosis. Herein, we describe a case of sarcoidosis of the scalp mimicking discoid lupus.

Case synopsis
A 71-year-old man reported a 5-year history of multiple patches of hair loss of the scalp. Initially, the hairless patches were described as red, well circumscribed, and pruritic. Later they became hypopigmented and asymptomatic (Figure 1). Review of systems was notable for a subcutaneous nodule on left forearm that presented for at least 5 years.

Figure 1. Scalp sarcoidosis. Typical patches of scarring alopecia of the scalp.
Physical examination revealed numerous, annular, hypopigmented plaques of scarring alopecia on the scalp that were surrounded by a slightly raised, hyperpigmented border. Telangiectases were noted within these plaques. Dermatoscopy revealed prominent telangiectases and orange macules within the hypopigmented areas. Additionally, there was a 2-3 cm well-circumscribed, firm, mobile nodule on the left forearm.

A punch biopsy of the scalp was obtained that demonstrated a diffuse nodular infiltrate of sarcoidal-type granulomas composed of epithelioid histiocytes, multinucleated giant cells, lymphocytes, and plasma cells (Figure 2). A previously performed biopsy from the forearm was also reviewed. Both biopsies were consistent with cutaneous sarcoidosis. Chest x-ray and CT revealed bilateral hilar and mediastinal lymphadenopathy and numerous pulmonary nodules consistent with pulmonary sarcoidosis. The remainder of his workup for sarcoidosis was unremarkable.

![Sarcoidal granulomas: H&E stain of sarcoidal-type granulomas composed of epithelioid histiocytes, multinucleated giant cells, lymphocytes, and plasma cells 100X magnification](image)

Sarcoidosis is a multisystem granulomatous disease in which granulomas can form in any organ system. Cutaneous involvement is relatively common but sarcoidal alopecia is rare with the majority of cases occurring in African American women [1]. This cicatricial alopecia is a result of granuloma formation that causes destruction of the hair follicles as evidenced in our case [2].

Clinically, sarcoidosis of the scalp has been described as localized areas of cicatricial alopecia; some reports noted erythema, scaling, or infiltrated borders [1]. Because cutaneous sarcoidosis is notorious for being a great mimicker, sarcoidal alopecia has also been reported to mimic other cutaneous diseases, namely discoid lupus [3]. Dermoscopy of scalp sarcoidosis in previously described cases has shown perifollicular or follicular orange spots along with prominent telangiectases that may aide in differentiating scalp sarcoidosis from discoid lupus [4]. These “orange spots” were also observed in this case with dermoscopy. Biopsy is required for distinguishing scalp sarcoidosis from other causes of alopecia including discoid lupus erythematosus on the scalp, lichen planopilaris, lupus vulgaris, cutaneous lymphoma, and scleroderma. Histopathologic examination of sarcoidal alopecia reveals classic sarcoidal granulomas in the dermis consisting of epithelioid histiocytes and multinucleated giant cells [5].

Scalp sarcoidosis is rarely the only cutaneous manifestation of sarcoidosis and it is associated with a high incidence of systemic sarcoidosis, as evidenced in this case [1]. A full skin exam as well as a complete work up for systemic sarcoidosis, including complete blood count, blood chemistries, angiotensin-converting enzyme levels, liver function tests, chest X-Ray, pulmonary function tests, electrocardiogram, ophthalmologic examination, and testing for tuberculosis is warranted.

There is limited data for the treatment of scalp sarcoidosis. However, treatment options include the use of intralesional corticosteroids [1], oral corticosteroids [2,6], immunosuppressive agents such as azathioprine [1], and antimalarials such as hydroxychloroquine [7].
References