

## CASES FOR DIAGNOSIS

# Cutaneous Lesions on Scars

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### Patient History

A 71-year-old woman, receiving treatment for type 2 diabetes mellitus, hypertension, and hypercholesterolemia, had suffered an ethanol burn affecting the facial, anterior cervical, and neckline region 7 years earlier. She consulted the outpatient department for inflammation and pruritus in the scars that began 4 months earlier. She also presented new lesions on healthy skin, but no associated systemic symptoms.

### Physical Examination

The examination revealed thickened erythematous violaceous scars that were firm and elastic and infiltrated on palpation (Figures 1 and 2), along with a small number of papules and erythematous plaques on areas of healthy skin. No enlarged lymph nodes, visceromegaly, signs of uveitis, parotid swelling, fever, or lesions suggestive of erythema nodosum were observed.

### Additional Examinations

The additional examinations showed a normal blood workup, with no elevation of erythrocyte sedimentation rate, lymphopenia, anemia, or eosinophilia, blood glucose of 312, elevated liver enzymes (glutamic-oxaloacetic transaminase, 63; glutamic-pyruvic transaminase, 48;  $\gamma$ -glutamyl transferase, 118), and increased  $\beta$ -globulin (17.9) and angiotensin-converting enzyme (76.2). All other biochemical variables, including calcium, were normal.

The chest x-ray revealed mediastinal thickening with no signs of pulmonary infiltrates. Computed tomography of the chest and abdomen showed mediastinal lymph node enlargement, but no other abnormalities.

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Manuscript accepted for publication April 3, 2007.

### Histopathology

Biopsy of one of the lesions revealed epithelioid granulomas with no central caseation in the upper and deep dermis (Figure 3), as well as the presence of multinucleated giant cells (Figure 4).

What is your diagnosis?



Figure 1.



Figure 2.

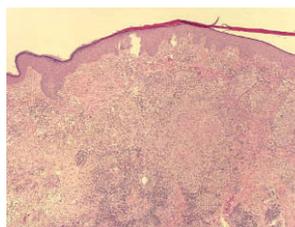


Figure 3. Hematoxylin-eosin, 4 $\times$ 100.

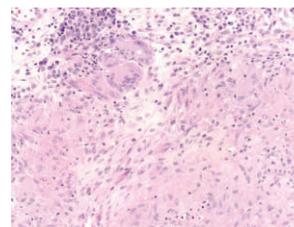


Figure 4. Hematoxylin-eosin, 20 $\times$ 100.

## Diagnosis

Scar sarcoidosis

## Course and Treatment

The patient was treated with topical corticosteroids and oral antihistamines, with improvement in the lesions and resolution of the pruritus.

## Comment

Scar sarcoidosis is a form of characteristic, but rare, cutaneous sarcoidosis.<sup>1-9</sup> It generally affects old scars due to trauma,<sup>2-9</sup> but has also been described in scars from surgery, vaccines, intradermal reactions, tattoos,<sup>10</sup> herpes zoster,<sup>11</sup> foreign bodies,<sup>12</sup> and areas of chronic trauma. Affected scars become erythematous or purpuric, enlarged, and of firmer, more elastic consistency, simulating a keloid.

Scar sarcoidosis is usually associated with long-term disease involving multiple organs, but has also been reported in acute forms and as a sign of recurrence of sarcoidosis in remission. On rare occasions, as in our patient, it is the presenting symptom of systemic sarcoidosis.<sup>7</sup>

The main differential diagnosis of scar sarcoidosis is established with foreign body granuloma.<sup>12-14</sup> Although it was formerly thought that the presence of birefringent particles in the epithelioid granuloma excluded a diagnosis of sarcoidosis, we now believe that this material may play an important role in the pathogenesis of the disease, acting as a trigger and focus in sarcoidal granuloma.<sup>12-14</sup> If we understand sarcoidosis to be an exaggerated immune response to various kinds of antigens, we can accept that the foreign body is the stimulus necessary for granuloma formation. This hypothesis appears to be supported by the higher prevalence of scar sarcoidosis in contaminated trauma scars, as well as the possible presence of foreign particles in granulomas of the skin, lymph nodes, and lungs in patients with sarcoidosis.<sup>13-14</sup>

## Conflicts of Interest

The authors declare no conflicts of interest.

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