



CASE FOR DIAGNOSIS

Multiple Keloid Nodules in a Middle-Aged Woman*

Múltiples nódulos queloideos en paciente mujer de mediana edad

Case Report

A 61-year-old woman presented with a 6-year history of spontaneous, progressive skin nodules on her neck and trunk. Her medical history was remarkable for hypothyroidism, type 2 diabetes, depression, Raynaud phenomenon, and fundoplication surgery for gastroesophageal reflux. Physical examination showed microstomia and multiple, well-circumscribed, flesh-colored nodules on the neck, anterior thorax, back, shoulders, and arms (Fig. 1). The nodules were not painful, measured 5 to 10 mm in diameter, and were not fixed to the deep layers. The patient also had a plaque measuring 30 × 30 mm on each forearm and bilateral Raynaud phenomenon with an associated ulcer on the right

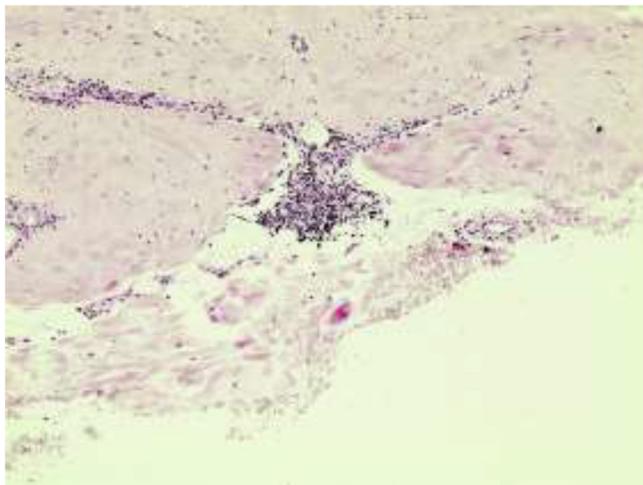


Figure 1 Multiple keloid-like skin nodules on the chest.

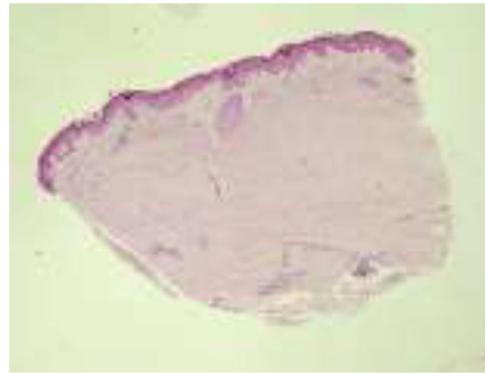


Figure 2 Hematoxylin–eosin staining, original magnification $\times 100$.

index finger. Examination of three 4-mm biopsy specimens from nodules on the right upper limb showed a preserved epidermis and pronounced dermal fibrosis, decreased skin appendages, and a mild superficial and deep periadnexal and perivascular infiltrate (Figs. 2 and 3). Mucin deposition observed with Alcian blue staining was insignificant. Of note in the blood workup were antinuclear antibodies (+) 1/1280 and anti-RNA polymerase III (+) (RP155+++ and RP11++ subunits). Color Doppler ultrasound of the skin nodules showed moderately solid, vascularized focal areas in the dermis. Capillaroscopy showed nonspecific microcirculation alterations.

What Is Your Diagnosis?

Diagnosis

Based on the physical examination and the results of the histologic examination and other tests, the patient was diagnosed with nodular morphea associated with systemic sclerosis. The patient was treated with systemic mycophenolate mofetil and intralesional corticosteroid injections for the more severe lesions. She was also evaluated by a rheumatologist, who agreed with the diagnosis.

Comment

Morphea, or localized scleroderma, is a rare autoimmune skin disorder characterized by skin and soft tissue inflammation and sclerosis.¹ Nodular (keloid) morphea is a rare form

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Figure 3 Hematoxylin–eosin staining, original magnification $\times 40$.

of cutaneous sclerosis secondary to an excessive fibrotic reaction that leads to the formation of multiple skin nodules, similar to keloids.² It has been described in association with localized scleroderma or systemic sclerosis with or without active systemic involvement.³ Clinically, it is characterized by multiple, firm, raised lesions that vary in size from 2 mm to 4 or 5 mm, do not cause pain, generally appear spontaneously, and tend to affect the trunk and upper extremities. Nodules occur in the absence of previous trauma or lesions, although there have been reports of external triggers, including infections, drugs, and environmental exposures.⁴ Histologic findings vary and can show *a*) characteristic hypertrophic or keloid scars, *b*) characteristic scleroderma features, *c*) a combination of morphea and keloid-like features in the same biopsy specimen, and *d*) morphea-like features in early-stage lesions and keloid-like features in later-stage lesions.⁵ Correlation of clinical and histopathologic findings and additional evidence of systemic involvement help confirm a suspected diagnosis of nodular morphea. The differential diagnosis should include localized cutaneous mucinosis, which occurs in association with

systemic sclerosis or morphea. Several treatment modalities have been described in the literature and include topical and intralesional corticosteroids, systemic corticosteroids, topical calcipotriol, psoralen photochemotherapy, cyclosporine, D-penicillamine, methotrexate, extracorporeal photochemotherapy, and surgical excision. The results, however, have been variable and unsatisfactory.

Nodular morphea is a rare condition, with approximately 40 cases described in the literature.⁶ It should be suspected in patients with extensive nodular or keloidal lesions.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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