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Granuloma faciale—treatment by dermabrasion

Report of a case

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GRANULOMA faciale is characterized by reddish-brown elevated plaques or nodules with follicular plugging which develop mainly on the face.[1] Although the lesions are asymptomatic and have never been associated with systemic disease, they are frequently cosmetically distressing. In the past there has been no form of treatment that has produced consistently good results. We are reporting a case of granuloma faciale in a young Negro woman in whom a good cosmetic result was obtained by dermabrasion.

Report of a case

A 31-year-old woman was first seen at the Cleveland Clinic in April 1968 because of nodular lesions on her nose, cheeks, and ears, of four years' duration (*Fig. 1*). A biopsy specimen showed a dense granulomatous reaction in the dermis with perivascular infiltrate composed of histiocytes, eosinophils, many neutrophils, and leukocytoclasis. The pilosebaceous appendages were well preserved. The epidermis and subcutaneous tissue were not involved. The biopsy specimen was consistent histologically with granuloma faciale.

In May 1968 the patient was started on a course of intralesional triamcinolone therapy. Treatments were given at two- to four-week intervals for six months with triamcinolone acetonide from 0.5 to 2 mg per infiltrate at each treatment. Initially there was no improvement. In October 1968 a trial of antimalarial therapy (hydroxychloroquine sulfate 200 mg per day) was started, and the monthly intralesional injections of triamcinolone were discontinued. After six months of this therapy, minimal flattening of the nodules was noted (*Fig. 2*). A second skin biopsy of the facial lesions in July 1969 showed only fibrosis and hyalinization of the middle and upper dermis. Because of this biopsy, the disease process was believed to be inactive. In August 1969 a small test area of the chin was dermabraded. One month after dermabrasion the plaques and nodular lesions had remained flattened and there was a slight increase in pigmentation of the dermabraded area. This was most likely due to the continuation of the antimalarial therapy. Two months later dermabrasion of the remaining nodules was performed and definite improvement and flattening of the lesions was noted over the malar area (*Fig. 3*). The lesions on the nose were more bulbous in nature and did not respond so well to the dermabrasion. The patient has been maintained on hydroxychloroquine sulfate 200 mg per day. A second dermabrasion may be indicated at a later date.

Comment

After the introduction of the term "eosinophilic granuloma of the skin" by Nanta and Gadrat[2] in 1937, a variety of lesions characterized by granu-

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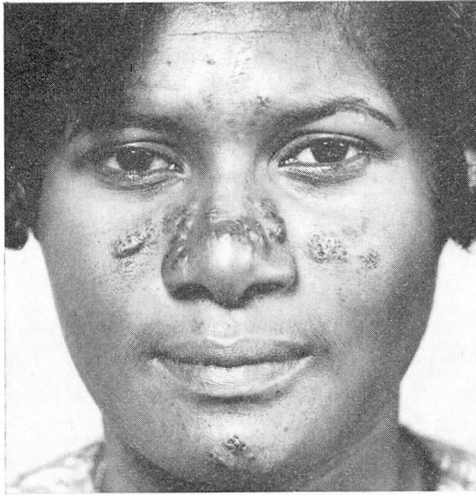

Fig. 1. Photo shows granuloma faciale. Violaceous nodular lesions with follicular plugs are distributed over the patient's nose, cheeks, and chin.

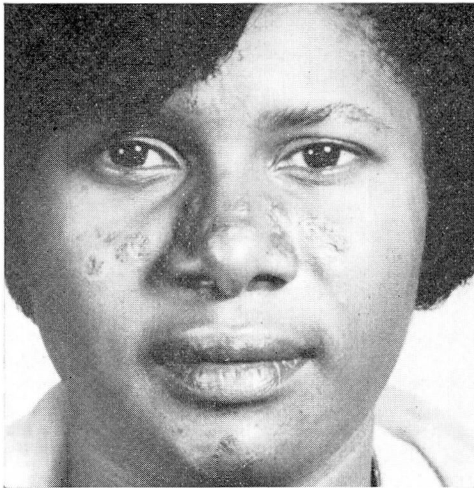

Fig. 2. Photo shows granuloma faciale after therapy with steroids and antimalarial drugs before dermabrasion.

loma formation and tissue eosinophilia were reported as eosinophilic granulomas.[1, 3] In 1951, Pinkus[3] reviewed the literature of the eosinophilic granuloma and proposed discontinuance of the use of the term. He believed that it was more useful to classify cutaneous granulomas with eosinophilia into two categories—blastomatous and inflammatory. Under the inflammatory classification he listed granuloma faciale. Pinkus[3] described granuloma faciale as a distinct clinical entity, not related or secondary to

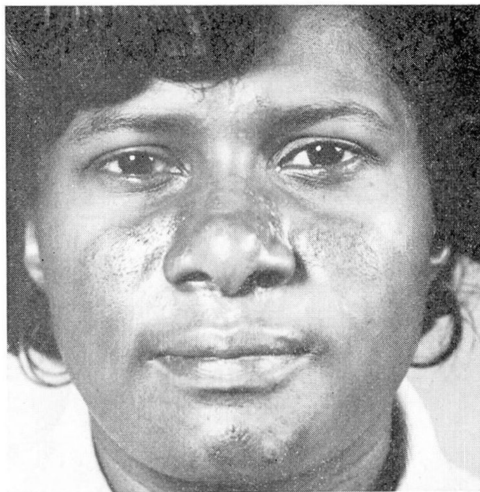

Fig. 3. Photo shows granuloma faciale six weeks postdermabrasion.

any other disease. He showed that it had a characteristic, distinctive, histologic pattern.

Treatment

The lesions of granuloma faciale have been treated by most of the modern modalities utilized in dermatology. In 1959, Johnson and associates[1] reported a series of 15 patients who were treated at one time or another with the following: surgical excision, X-ray, electrodesiccation, dry ice, injections of gold, bismuth taken orally, intramuscular injections of testosterone, cortisone, chloroquine, p-amino benzoic acid, calciferol, isoniazid, iodides, potassium arsenite taken orally, sun-protective creams, and dermabrasion. They concluded that the treatments were totally unsatisfactory in most cases and should be avoided unless the patient is emotionally distressed by the lesions. In their experience, surgical excision of the lesions yielded the best result, although several patients had recurrent lesions in the surgical scars.

Arundell and Burdick[4] reported regression of the granulomatous lesions in one patient treated at the Cleveland Clinic with intralesional dexamethasone.

In 1966, Pedace and Perry[5] reviewed 21 cases of granuloma faciale seen at the Mayo Clinic from 1945 to 1965. They were able to obtain follow-up information from 14 patients. Three patients were free of lesions; one patient had no treatment; one was treated with oral antimalarials, and one was treated with intralesional injections of steroids. Conversely, several of the other patients who were treated with antimalarials or intralesional steroids had shown little or no improvement.

Dermabrasion or surgical planing is a procedure that has been used extensively in the last 20 years, through use of a high-speed rotary abrasive instrument and local refrigerative anesthetic.[6] Various levels of skin are planed to depths necessary for removal of defects resulting from acne scars, tattooing, and surgical and traumatic scars. It has also been used to treat various skin disorders such as extensive actinic keratosis, adenoma sebaceum of Pringle, and multiple trichoepitheliomas. Complications occasionally encountered with dermabrasion include: bacterial infections, milia, hypertrophic scars, hyperpigmentation, and hypopigmentation in the region of dermabrasion.

Summary

Granuloma faciale, an asymptomatic inflammatory granulomatous disease of the face, has been resistant to many types of therapy. The patient whose case is reported here was treated initially with intralesional injections of steroids, with no appreciable effect. A trial of oral antimalarial therapy resulted in some flattening of the lesions but the cosmetic result was not acceptable. A dermabrasion of the involved region produced a good cosmetic result with flattening of granulomatous lesions. A six-month follow-up study revealed no recurrence of the lesions.

Dermabrasion offers a modality of treatment in granuloma faciale and it should be considered in cases in which a good cosmetic appearance is of particular importance to the patient.

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