

Treatment of Granuloma Faciale with the Pulsed Dye Laser

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Granuloma faciale is a chronic benign vasculitis that generally affects the skin of the face. The lesions are commonly refractory to therapy. A patient with long-standing granuloma faciale refractory to topical corticosteroid and dapsone therapy had an excellent response to treatment with the pulsed dye laser.

Lesions of granuloma faciale generally present as reddish-brown, flat-topped papules and plaques with wide follicular orifices. Histologically, the lesions demonstrate leukocytoclastic vasculitis with many eosinophils and prominent “onion skin” fibrosis around vessels. Therapy for this chronic benign vasculitis often proves challenging.

Case Report

A 54-year-old man presented to our dermatology clinic requesting therapy for chronic lesions of his face. Two 6 mm reddish-brown, flat-topped papules

and a smaller 3 mm papule were noted on examination (Figure 1). All three papules had prominent follicular openings. The lesions had been present for 10 years. A prior biopsy was diagnostic for granuloma faciale. A scar from the biopsy is visible in Figures 1 and 2. The lesions had failed to respond to topical corticosteroid therapy. The patient had also been treated with oral dapsone for 2 years without response. The patient desired treatment, but expressed concern about the potential for further scarring.

The lesions were treated with the Candela™ pulsed dye laser. An initial treatment with one pulse to each lesion (6.5 J/cm²) produced no response. One month later, the lesions were treated with a single 7.0 J/cm² pulse to each lesion. Lesional purpura was noted immediately after the treatment, and partial resolution was noted 1 month later. The lesions were each treated with one additional 7.0 J/cm² pulse, resulting in complete clearing (Figure 2).

Discussion

As the name implies, granuloma faciale most commonly involves the face, although extrafacial lesions do occur and can be widespread.^{1,2} Intralesional corticosteroid injections are sometimes effective.³ However, lesions of granuloma faciale are commonly refractory to both top-



FIGURE 1. Granuloma faciale.



FIGURE 2. Complete resolution after three laser pulses to each lesion.

ical and intralesional therapy with corticosteroids. Dapsone may be effective, but carries the potential for systemic toxicity, especially anemia and peripheral neuropathy.^{4,5} Patients receiving dapsone therapy need periodic monitoring of complete blood count and muscle strength. Cryotherapy has been used alone and in combination with intralesional corticosteroid injection.^{6,7} Other destructive modalities that may be effective include electrosurgery, carbon dioxide laser, and dermabrasion.⁸⁻¹⁰ Argon laser has also been used successfully.¹¹ Potential risks of all destructive modalities include hypopigmentation, atrophy, and scarring.

Our patient had persistent fixed plaques of granuloma faciale for 10 years despite attempts at therapy. He was extremely pleased with his rapid and complete response to pulsed dye laser therapy. Advantages of pulsed dye laser therapy include a minimal risk of scarring and the speed and ease of operation. Further studies are needed to evaluate this potentially valuable addition to our therapeutic armamentarium.

Note added in proof—Since the time that this article was accepted for publication, two other reports of efficacy of the pulsed dye laser for granuloma faciale have appeared in print:

Ammirati CT, Hraza GJ: Treatment of granuloma faciale with the 585-nm pulsed dye laser. *Arch Dermatol* 135: 903-905, 1999.

Welsh JH, Schroeder TL, Levy ML: Granuloma faciale in a child successfully treated with the pulsed dye laser. *J Am Acad Dermatol* 41: 351-353, 1999.

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