

Eruptive histiocytoma (2) should be considered in the differential diagnosis. Papular lesions in this disorder are reddish or brown, and distributed extensively over the face, trunk and extremities. Histological features consist of relatively monomorphic, histiocytic infiltrate in the dermis without proliferation of collagen bundles. Thus the present case is distinctive from this rare disorder.

This patient had pneumonitis probably as a manifestation of systemic lupus erythematosus, which is a relatively rare symptom of this disorder. We speculate that the white, fibrous, papular lesions present in this case are linked to a particular clinical subtype with lupus pneumonitis.

Interestingly, Yamamoto et al. (3) demonstrated that serum from a systemic lupus erythematosus patient with multiple dermatofibromas had an enhanced capability to stimulate the proliferation of dermal fibroblasts.

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Kazuhito Hayakawa and Tetsuo Shiohara
Department of Dermatology, Kyorin University School of Medicine,
6-20-2 Shinkawa, Mitaka, Tokyo, 181, Japan.

Recalcitrant Molluscum Contagiosum in a Patient with AIDS Successfully Treated by a Combination of CO₂-laser and Natural Interferon Beta Gel

Sir,

Treatment of molluscum contagiosum in immunodeficient patients remains a major challenge (1, 2). Spontaneous resolution seen in immunocompetent patients does not occur in immunocompromised individuals. A large number of different therapy modalities, such as curettage, CO₂-laser and electrodesiccation, trichloroacetic acid, topical tretinoin and topical podophyllotoxin have been tried. However, no convincing data on successful treatment, either local or systemic, have been reported so far in the literature. In contrast to mucocutaneous herpes virus infections, no specific antiviral compound is available for molluscum contagiosum.

We describe a patient with AIDS and recalcitrant molluscum contagiosum who responded favourably and long-lasting to a combined CO₂-laser and local natural interferon (IFN) beta gel treatment.

CASE REPORT

A 50-year-old man with AIDS presented with widespread partially giant molluscum contagiosum predominantly located on the face and the beard region as well as on the forehead (Fig. 1). Similar lesions were seen in the retroauricular region, on the nipples, on the back and on the perianal skin. HIV infection was detected in 1989 and since 1991 disfiguring molluscum contagiosum lesions have been developing continuously. Also since 1991 the patient has suffered from cytomegalovirus-retinitis, which has led in the meantime to blindness. Additional important findings are severe oral candidosis, numerous Kaposi's sarcomas located on the extremities and on the trunk and in the oral cavity as well as postinflammatory pigmentation due to X-ray irradiation of Kaposi's sarcomas. Several therapies for the molluscum contagiosum located on the face, such as cryotherapy, podophyllotoxin 0.5%, curettage and CO₂-laser, were without success. Regularly, recurrence of lesions occurred some weeks after therapy. Further concurrent medication comprised intravenous foscarnet sodium (60 ml/kg body-weight per day) and oral fluconazole (400 mg per day). The most prominent

laboratory finding was the complete absence of CD4-positive T-helper cells and a negative CD4-/CD8-ratio, as well as absolute skin anergy to ubiquitous antigens in the delayed type hypersensitivity skin test (Multitest Mérieux).

The molluscum contagiosum lesions were removed in general anaesthesia using CO₂-laser (Swift Lase, Sharplan, Israel) evaporation flanked by rigorous smoke evacuation. After complete debulking of the lesions adjuvant interferon beta gel (0.1 Mio International Units natural interferon beta/1 g gel) (Fiblaferon Gel, Dr. Rentschler Arzneimittel, Laupheim, Germany) was given to the wounds five times a day for 4 weeks. Some circumscribed recurrences in the 3 weeks after ablation, consisting of small lesions, were removed using CO₂-laser under local anaesthesia. The remaining wounds were again locally treated with interferon beta gel as described. At perianal sites the combination of CO₂-laser and natural IFN-beta gel was combined with bathing in aqueous solutions of KMnO₄ up to three times per day.

With this treatment complete and long-lasting healing of molluscum contagiosum lesions was achieved (Fig. 1). During a follow-up of 6 months no further relapse of molluscum contagiosum was noticed. Besides some initial itching, no side effects were reported. Skin irritation, in particular, was absent. Keloid scar formation did not occur.

DISCUSSION

Widespread and giant molluscum contagiosum are important markers of advanced immunodeficiency (2, 3). Similar to human papillomavirus (HPV) infections, non-specific ablative therapy modalities have been used for molluscum contagiosum so far with marginal or no success in severely immunodeficient AIDS patients (1), especially in terms of recurrences. This is also true for both intralesional and single parenteral IFN therapy (1). In our hands, CO₂-laser ablation alone did not cure severe molluscum contagiosum in four patients suffering from AIDS (data not published).

The recently developed CO₂-laser Swift lase operating principle enables ablation of surface ultrathin char-free epithelial

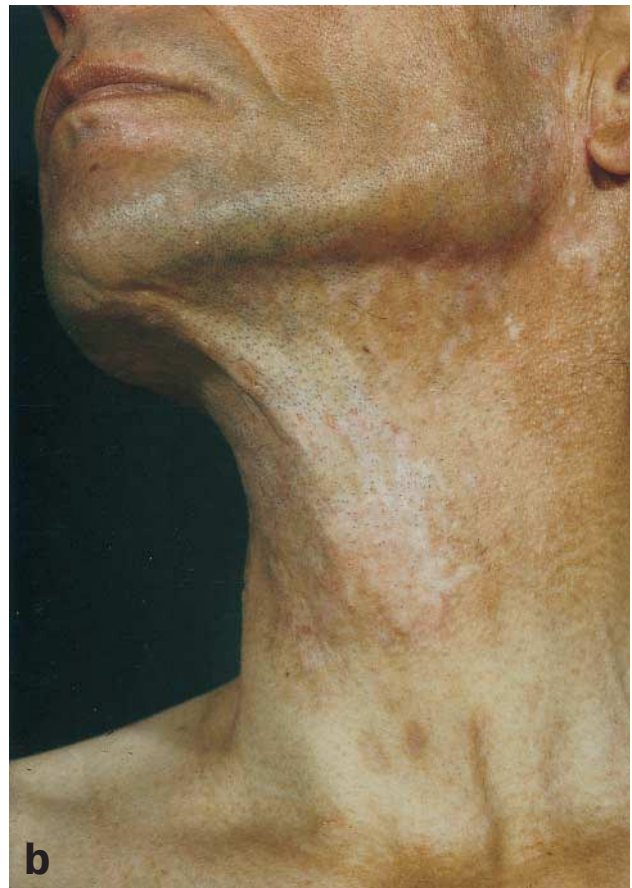


Fig. 1. (A) Multiple partially confluent molluscum contagiosum lesions on the face and beard region. (B) Long-lasting complete healing 3 months after combined CO₂-laser and IFN-beta gel therapy.

layers of about 200 μ /sec if a CO₂-laser beam of 10 watts and a spot size of 0.5 mm is used (4). It is suspected that with this system thermal necrosis and damage of deep corial tissue is widely reduced and scar formation less likely to occur. For safety purposes CO₂-laser therapy must always be flanked by a smoke-evacuator, and eye-protection with special protective lenses is absolutely mandatory.

Application of IFN-beta gel has been used successfully in patients with anogenital condylomata acuminata after debulking of the lesions with CO₂-laser, electrocautery or cryotherapy in terms of a lower recurrence rate as compared with a gel containing placebo (54% versus 75%) (5). Even in children, widespread anogenital warts have been treated successfully with this combination therapy (G. Gross, pers. observations). There are no data available on the absorption and penetration of IFN containing gels because appropriate methods by which to determine IFN occurring locally and in low levels are lacking. Molluscum contagiosum and HPV-induced condylomata acuminata as well as cutaneous warts are epithelial tumours induced by the epitheliotropic DNA viruses, poxvirus mollusci and HPV. The effect of local adjuvant IFN-beta applied directly to the target epithelial cells of poxvirus mollusci or HPV is very likely to be different from the systemic and intralesional IFN therapy yielding only limited effects in immunodeficient patients.

The present case report demonstrates the successful treatment of a combination of CO₂ laser ablation and local applica-

tion of IFN-beta gel in recalcitrant molluscum contagiosum. Whether the same effect can be achieved by combining IFN-beta gel treatment with other ablative therapies, such as curettage, must await further studies.

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Gerd Gross¹, Angelika Roussaki² and Josef Brzoska³

¹University of Rostock, Department of Dermatology, Augustenstraße, 80–85, DE-18055 Rostock, Germany, ²Private practice, Athens, Greece and ³Rentschler Biotechnology, Laupheim, Germany.