

Treatment of Acquired Cutaneous Lymphangiectasis of the Thigh and Vulva with a Carbon Dioxide Laser

Sir,

Cutaneous lymphangiectasis may develop after irradiation of squamous cell carcinoma of the cervix uteri. Treatment with carbon dioxide laser has been used successfully for this indication and has the advantage of being able to treat surface lymphatic vessels and seal communicating channels to the deeper vessels (1, 2).

CASE REPORT

A 70-year-old woman presented suffering from lymphoedema of the left inferior limb, and skin lesions located on the vulva and the left thigh. She had been treated with surgery and radiotherapy for cervical squamous cell carcinoma 16 years previously. The lesions started 3 years after therapy and progressed slowly. For the last 4 years, the lesions had been complicated by oozing, lymphorrhoea and several erysipelas, which interfered with her social life. Clinical examination revealed prominent lymphoedema of the left thigh, left leg and vulva involving the major and minor labia. There were also multiple translucent thick-walled vesicles and prominent wart-like lesions in the affected areas (Fig. 1). A skin biopsy demonstrated dilated lymph vessels lined by a single layer of endothelial cells in the upper dermis with epidermal acanthosis and hyperkeratosis. A diagnosis of acquired cutaneous lymphangiectasis was made. No gynaecological disease was apparent and further investigations, including a CT scan of the abdomen and pelvis revealed no abnormalities.

Laser therapy was performed with the carbon dioxide laser (Sharplan model) under local anaesthesia. The following irradiation parameters were used: hand-piece, skin distance 1 cm, spot size 2 mm, power 15 W, continuous exposure. The pathological tissue was vaporized to the middle dermis. A simple sterile dressing was applied post-operatively. Daily wound care consisted of chlorhexidine gluconate soaks, followed by application of a thin film of fucidic acid ointment. After a 4-week period with complete wound healing, all lesions were treated with the laser over 5 sessions. No infectious complications occurred during the 19-month follow-up. Recurrences of single pseudovesicles were re-treated with the carbon dioxide laser, using the same procedure as before. At the same time, manual lymphatic draining process associated with elastic contention was performed.

DISCUSSION

The association of multiple persistent translucent wart-like skin lesions with lymphoedema is a typical feature. More rarely, the lesions can have a much firmer hyperkeratotic appearance and can mimic viral wart-shaped lesions (3). Cutaneous biopsy is important in order to confirm the diagnosis and to rule out cutaneous metastases of cervix carcinoma, which can mimic lymphangiectasis (4). Recognition and appropriate treatment of acquired lymphangiectasis is important because lesions may act as portals of entry for infection and because persistent leakage of lymphatic fluid, and the cosmetic appearance may have important social repercussions. The ablative modalities used in the treatment of acquired lymphangiectasis comprise surgery, electrocautery, cryosurgery and laser argon surgery. Recurrence is frequent because of the persistence of deep lymphatic vessels after treatment. Carbon dioxide lasers have been successfully used for this indication and have the advantage over argon lasers of being independent from the content of erythrocytes. Although the deep vessels are not treated with the carbon dioxide laser, the surface lymphatic vessels



Fig. 1. Pronounced lymphoedema of the left leg and vulva, involving the major and minor labia, multiple translucent thick-walled vesicles and prominent wart-like lesions in the affected areas.

are vapourized and communicating channels to the deeper vessels are sealed (1). Moreover, laser carbon dioxide therapy can be repeated easily under local anaesthesia.

REFERENCES

1. Bailin PL, Kantor GR, Wheeland RG. Carbon dioxide laser vaporization of lymphangioma circumscriptum. *J Am Acad Dermatol* 1986; 14: 257–262.
2. Landthaler M, Hohenleutner U, Braun-Falco O. Acquired lymphangioma of the vulva: palliative treatment by means of laser vaporization carbon dioxide. *Arch Dermatol* 1990; 126: 967–968.
3. Harwood CA, Mortimer PS. Acquired vulval lymphangioma mimicking genital warts. *Br J Dermatol* 1993; 129: 334–336.
4. Yamamoto T, Ohkubo H, Nishioka K. Cutaneous metastases from carcinoma of the cervix resemble acquired lymphangioma. *J Am Acad Dermatol* 1994; 30: 1031–1032.

Accepted December 30, 1998.

F. Loche, H.P. Schwarze and J. Bazex*
Department of Dermatology, Purpan Hospital, Place du Docteur Baylac, FR-31059 Toulouse Cedex, France.

*Address for offprints.