

New successful treatment of genital AIDS-related Kaposi's sarcoma resistant to systemic therapy with 595-nm pulsed dye laser

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Dear Editor,

Kaposi's sarcoma (KS) is the most common malignancy observed in patients with HIV-1 infection. Different from classical Kaposi's sarcoma, a slowly progressing tumor, AIDS-related KS is much more aggressive. Complete remission of the tumor can usually be achieved after the introduction of antiretroviral therapy and the use of minimally immunosuppressive chemotherapy.^{1, 2}

Numerous treatment methods have been used for KS, with variable success and rate of relapse: surgical excision, radiotherapy, chemotherapy, immunotherapy, cryotherapy, sclerotherapy, and photodynamic therapy. Different laser treatments have also been used, such as ablative CO₂ laser and Nd:Yag laser, yet without any long-term results.³

A 35-year-old HIV-positive Caucasian male came to our Department with a one-year history of disseminated KS. He had lesions located on the chest, upper limbs and head, without any evident visceral involvement, and was under systemic treatment with liposomal doxorubicin (20 mg/m² i.v. every three weeks), with good control of the disease. Seven months before he had noticed the presence of several purpuric plaques with a linear distribution located on the glans' mucosa causing an increasingly more distressing dysfunction. A biopsy taken from the lesion revealed a vascular tumor with all the typical features of KS. Pegylated liposomal doxorubicin is currently considered the elective monochemotherapy for AIDS-related KS. However, despite very good control of the cutaneous manifestations, no significant improvement of the genital lesion was observed in this particular case. Therefore, we intended to treat the lesion using Pulse Dye Laser, which is normally successful in treating vascular lesions. A 595-nm pulsed dye laser (DEKA, M.E.L.A, Italy) was used with a fluence of 6.5 J/cm², a pulse duration of 0.5 mmsec, and a 10-mm spot. Laser pulses administered adjacent to each other produced immediate accentuation of the purpuric lesion on the glans, that lasted three days. A topical anti-

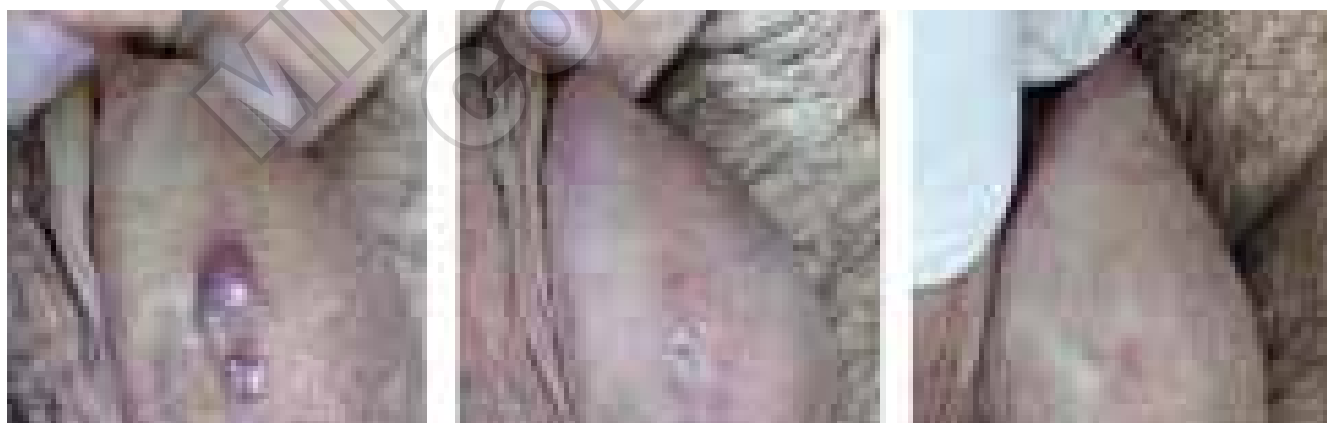


Figure 1.—KS lesions before treatment (A), after three treatments with pulsed dye laser (B), and after 12 months' laser therapy (complete remission) (C).

biotic cream (gentamicin sulfate 0.1%) was applied daily by the patient. A total of three laser courses, delivered 4 weeks and then 6 weeks apart, achieved clinical complete remission. At the 12-month follow-up, the patient came back with no evidence of relapse, local complications or dysfunction (Figure 1A-C).

According to this report, vascular-595-nm pulsed dye laser may be considered a valuable alternative to other local treatments for KS, especially those with a mucosal involvement and in case of non-complete remission following standard regimens. This type of laser reduces the risk of hyperpigmentation and skin texture changes, such as fibrosis or scarring, also in KS mucosal lesions as with our patient. No anaesthesia is necessary with this type of treatment, which also ensures reduced healing time, less bleeding and intraoperative pain, and a significant reduction in the risk of wound infection associated with other treatment methods. Another important advantage is that the physician is not exposed to the infected blood products of AIDS-associated KS. To the best of our knowledge, this is the first case of Kaposi's sarcoma on the genital mucosa treated with pulsed dye laser in literature. In fact, Marchell *et al.* and Tappero *et al.* published first the results of pulsed dye laser in the treatment of cutaneous KS.^{4, 5}

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Conflicts of interest. All authors declare that they have no financial or personal conflict of interest in this work. They also state that the manuscript has not been published previously nor is it currently being considered for any other publication. All authors and contributors have read and approved the manuscript.

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