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Extensive Bowenoid Papulosis of the Vulva Treated by Carbon Dioxide Laser in a Patient With AIDS☆

Tratamiento con láser de dióxido de carbono de una papulosis bowenoide vulvar extensa en paciente con sida

To the Editor:

Bowenoid papulosis of the genitalia in immunocompromised patients is associated with a high risk of recurrence and transformation to infiltrating squamous cell carcinoma on the one hand, and poor response to treatment on the other.[1,2]

We describe the case of a 50-year-old female smoker diagnosed with human immunodeficiency virus (HIV) infection in 1989 and invasive cervical cancer in 2000. She also had chronic hepatitis C infection complicated by cirrhosis. She had had histopathologically confirmed bowenoid papulosis since 2004. Treatments had included electrocoagulation, cryotherapy, podophyllin resin, as well as imiquimod, but with poor response and tolerance.

When the patient first visited our hospital in March 2005, she had a brownish plaque with well-defined borders and a verrucous surface covering almost the entire area of the external genitalia and the perianal area (Fig. 1A). A new biopsy confirmed the diagnosis of bowenoid papulosis. In December 2005, we decided to administer continuous-wave carbon dioxide (CO_2) laser therapy at a power of 7.5 W to treat the affected area and the acetowhite lesions identified; a lateral safety margin of 4 to 5 mm was also treated due to the possible presence of subclinical human papillomavirus (HPV) infection. The procedure was performed with the patient under epidural anesthesia. The treated areas were subsequently cleaned and dressed with an antibiotic ointment, and prophylactic valacyclovir was prescribed at a dose of 500 mg every 8 hours until complete reepithelization. Total clinical resolution of the lesions was observed at 1 month. The patient underwent follow-up examinations every 3 to 6 months, in addition to 4 treatment sessions with the same anesthesia, fluence, and postoperative care in October 2006, December 2007, April 2009, and June 2009. Complete clinical resolution was achieved each time (Fig. 1 B-G). The patient's CD4 count during follow-up is shown in Fig. 2. The control biopsies showed typical features of bowenoid papulosis, with no signs of infiltrating squamous cell carcinoma. During follow-up, the patient was diagnosed with hepatocellular carcinoma in 2008 and with a high-grade anal neoplasm in 2009. The respective treatments were chemoembolization and surgery followed by consolidation radiation therapy.

In all, over a period of 6 years we performed 5 sessions of CO_2 laser therapy, the last of which was in April 2009; no adverse effects were observed in any of the sessions. The patient remained free of lesions in the vulvar area from September 2009 until December 2010, when she died following progression of her hepatocellular carcinoma. The only treatment required during this period was cryotherapy of isolated lesions in the area.

CO_2 laser therapy causes minimal postoperative pain[3] and produces better cosmetic results than other methods, especially when used on the external genitals.[4] It has been used since 1988 to treat large bowenoid papulosis lesions that are difficult to treat with other methods.[5] The primary complications described to date are vesicovaginal fistulas[6] and vulvodynia, especially of the posterior commissure or the vulval vestibule.[7] CO_2 laser therapy for bowenoid papulosis lesions achieves complete response, and the rate of recurrence is between 12.5% and 21%.[8] The

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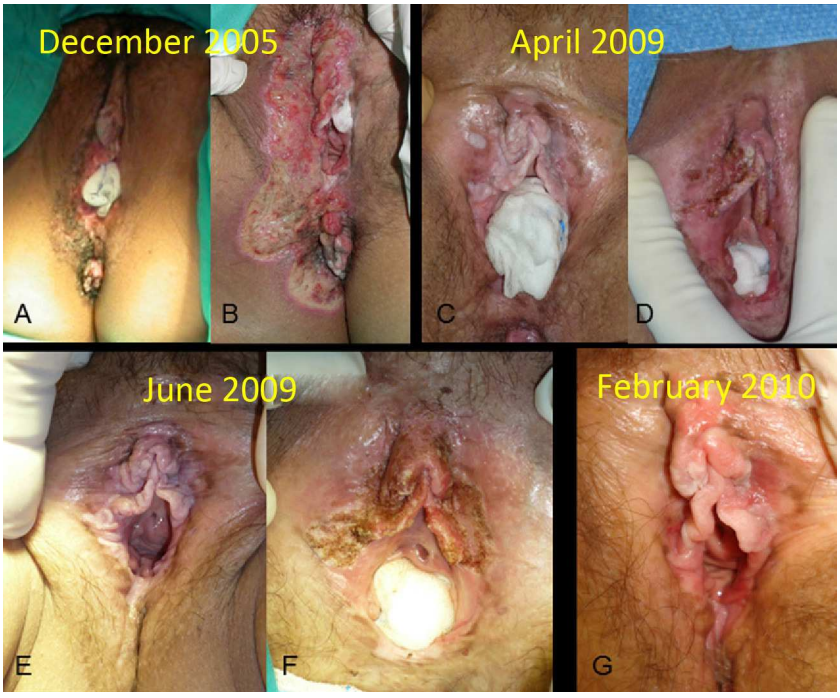

Figure 1 A, Multiple brownish flattened lesions on the vulva. B, Wound with granulation tissue 10 days after laser treatment. C, New whitish velvety plaques diagnosed as bowenoid papulosis (April 2009). D, Postoperative result following the second treatment session with carbon dioxide laser. E-G, Subsequent instances of recurrence, controlled with treatment.

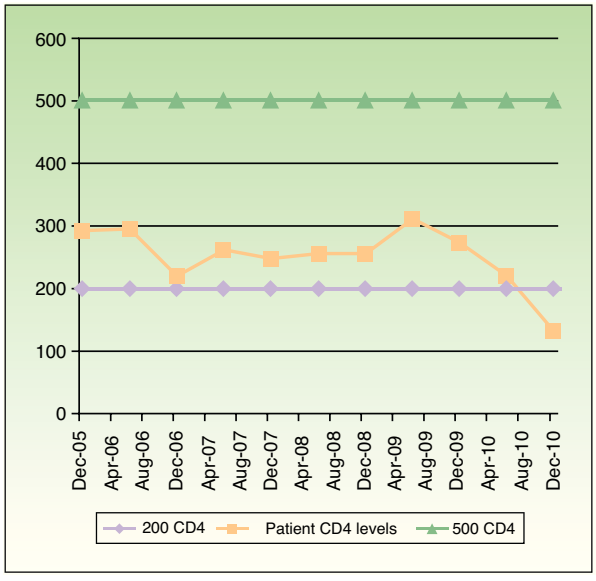

Figure 2 The red line shows the patient's CD4 count during follow-up. The *y* axis shows the CD4 count as cell s/μL, and the *x* axis, the month and year each sample was taken.

cure rate appears to be lower (just 34.5%) in HIV-positive patients, in whom HPV infection persists.[9] Differences in cure rates are less substantial in condylomas treated with CO_2 laser.[10] In our case, due to the slight fluctuations in CD4 count during follow-up, it is reasonable to rule out an improvement in symptoms due to immune recovery. A number of approaches have been used to treat bowenoid papulosis in immunocompromised patients, such as electrocoagulation, cryotherapy, 5-fluorouracil, intralesional interferon gamma, imiquimod, podophyllin resin, CO_2 laser, and Nd:YAG laser. However, the effectiveness of these treatments is difficult to assess due to the scarcity of cases in the literature.

As evidenced in the present case, immunocompromised patients are more susceptible to HPV-related neoplasms. We have presented this case because we achieved a good clinical response and high patient satisfaction with the cosmetic outcome after only 5 treatment cycles and with no adverse effects. In light of these results, CO_2 laser therapy may be considered an appropriate treatment for immunocompromised patients with extensive and recurrent lesions.

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Linear and Annular Lupus Panniculitis of the Scalp☆

Paniculitis lúpica de distribución lineal y anular localizada en el cuero cabelludo

To the Editor:

Lupus panniculitis (LP) is a rare variant of cutaneous lupus erythematosus (CLE) that primarily affects the deep dermis and adipose tissue.[1] It develops in 1% to 3% of patients with CLE. Antinuclear antibodies (ANA) are positive in 70% of cases, but only 25% to 50% satisfy the criteria for systemic lupus erythematosus.[2] The diagnosis of LP is based on the correlation of clinical, serological, and, most importantly, histopathological findings. Direct immunofluorescence is positive in 70% to 80% of cases and can help to confirm the diagnosis.[2] LP with a linear or annular morphology is extremely rare; only 14 cases of linear LP have been described,[3–7] and just 1 case of LP with annular lesions[8] (Table 1). Of these 15 cases, 9 affected the scalp.

We present the case of a 34-year-old man who consulted because of a plaque of alopecia that had been present in the right parietal region for 12 months. Three months earlier he had been diagnosed with alopecia areata but the plaque did not respond to treatment with topical corticosteroids and subsequently had increased in size and had become erythematous and painful. The patient did not report fever, joint pain, oral aphthous ulcers, or other associated symptoms. Physical examination revealed an erythematous, edematous plaque of alopecia in the right parietal region. The plaque had an annular morphology and measured about 6 cm in diameter (Fig. 1A). Skin biopsy findings were compatible with lupus panniculitis, and direct immunofluorescence revealed granular deposits of immunoglobulin M in the basement membrane. Complete blood count and serum biochemistry were normal, and immunological study was positive for ANA at a titer of 1:320 and for Anti-Ro.

A new plaque of alopecia simulating alopecia areata was observed in the occipital region at subsequent follow-up visits (Fig. 1B).

A diagnosis of LP was made based on the clinical, histological, and serological findings, and a 5-month course of treatment with hydroxychloroquine was started at a dose of 400 mg/d. This regimen produced a reduction in the erythema and induration of the plaque and resolution of the alopecia. The patient did not attend the scheduled follow-up, but came to an unscheduled visit at 12 months, at which time he presented multiple firm erythematous nodules and nonscarring alopecia with an annular and linear morphology located in the occipital and both parietal regions (Fig. 1C). Oral prednisone was prescribed at a dose of 30 mg/d tapered over 3 weeks; there was an initial improvement, but the lesions recurred after treatment was discontinued.

Linear LP localized to the scalp was first described by Nagai et al.[4] in 2003. A further 7 cases of LP in a linear pattern on the scalp have been described and 1 case of LP at the same site with an annular pattern.[5–8] Most of the cases have been reported in southwest Asia,[6] suggesting a genetic or ethnic predisposition; the condition affects both sexes and occurs mainly in young patients. Clinical presentation takes the form of plaques of alopecia; these are usually nonscarring and follow the Blaschko lines,[6] which, on the scalp, have a spiral distribution centered on the vertex[9] (Fig. 1D). It would appear that inflammatory dermatoses that follow the Blaschko lines are the result of a genetic mosaicism, in which a clone of abnormal cells remains inactive until an environmental factor stimulates its growth.[10] The overlying skin may be normal, erythematous, or show signs of discoid lupus. The histopathology findings in linear LP include a predominantly lobular lymphocytic panniculitis with hyaline fat necrosis,[7] as observed in other forms of LP. Our patient underwent 2 skin biopsies. The first showed a dense lymphocytic infiltrate mainly affecting the deep dermis and adipose tissue, with areas of fat necrosis (Fig. 2A) and vacuolar damage of the basal layer of the epidermis (Fig. 2B). The second biopsy revealed

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