

Lichen Planus Induced by Interferon- α -2B Therapy in a Patient with Cutaneous Malignant Melanoma

Sir,

Interferons (IFNs) are cytokines widely used in medicine for their antiproliferative, antiviral and immunomodulatory effects. Their most common side effect is an influenza-like syndrome characterized by fever, headache and muscle pain. Also, IFNs infrequently induce or worsen some dermatoses, such as herpes labialis, psoriasis, pemphigus and vitiligo (1). Several papers have referred to the induction or exacerbation of lichen planus (LP) in patients treated with IFN for hepatitis C virus (HCV) infection (2, 3). LP has, however, rarely been described in patients treated with IFN without HCV infection or in patients with melanoma treated with IFN. We describe here a patient with a cutaneous malignant melanoma, stage III, HCV negative, who developed a mucocutaneous lichen planus after 3 months of therapy with recombinant IFN- α -2b.

CASE REPORT

A 51-year-old male had a nodular melanoma on his back (Breslow 3.5 mm, Clark V) that was removed in 1994 with local recurrence 2 years later. A wide local excision was performed and the defect was closed with a full thickness skin graft. Lymph node metastases on the right axilla were detected in April 1997 (Stage III disease -N2a- of the American Joint Committee on Cancer) and a therapeutic node dissection was performed. One month later, the patient started therapy with intravenous IFN- α -2b (Intron®) at 10^6 U/day for the first month, followed by subcutaneous IFN 10^6 U, 3 times a week, being well tolerated.

After 3 months of therapy the patient developed generalized, pruriginous, erythematous papules located on the wrist, forearms and dorsa of the feet. There were also reticulated, not ulcerated, white plaques on buccal and genital mucosae. The results of the following studies were within normal limits or negative: blood cell count, liver function test, urinalysis and serology for HCV, HBV, Epstein Barr virus and cytomegalovirus. CT scans of the thorax and abdomen were normal without recurrence of melanoma. The biopsies from the skin and oral mucosa revealed irregular acantosis, basal vacuolation and a dense band-like lymphohistiocytic infiltrate. We diagnosed LP eruption induced by IFN- α -2b. Oral administration of deflazacort, 30 mg/day, was started and therapy with IFN was continued. One month later, the skin lesions improved and deflazacort dosage was gradually reduced and discontinued. After 12 months, therapy with IFN was discontinued although a few new asymptomatic lesions of LP appeared, but no further treatment was required.

DISCUSSION

In the last few years, an increased prevalence of HCV infection (subtype 1b) has been reported in patients with LP, mainly with the erosive oral type, ranging from 14% to 26%. The prevalence of LP in patients with HCV is around 5.5% and it would increase until 16.7% in patients treated with IFN (3, 4). Induction of LP and exacerbation of pre-existing lesions have been reported in patients with HCV infection

treated with IFN (4). Nevertheless, several cases of LP have improved or cured with IFN therapy (5). These effects do not depend on dose or on the type of IFN used. In a few cases who got worse it was necessary to discontinue the treatment (2, 5).

The pathogenetic mechanisms by which IFN would induce or exacerbate LP remain unknown. Some papers have demonstrated that IFN- α increases IFN- γ level, which has a great pro-inflammatory activity.

The appearance of LP in patients without HCV infection treated with IFN has previously been referred in 3 cases with lymphoproliferative disorders, but never in patients with melanoma, in spite of the increasing use of IFN in melanoma (6–8). We believe that in the case described here the presence of an advanced malignant melanoma influenced the development of LP after IFN therapy, due to the fact that these patients have diverse alterations in the recognition of tumoral antigens.

REFERENCES

1. Asnis LA, Gaspari AA. Cutaneous reactions to recombinant cytokine therapy. *J Am Acad Dermatol* 1995; 33: 393–410.
2. Agner T, Fogh H, Weismann K. The relation between lichen planus and hepatitis C: a case report. *Acta Derm Venereol* 1992; 72: 380.
3. Sánchez-Pérez J, de Castro M, Buezo GF, Fernández-Herrera J, Borque MJ, García-Díez A. Lichen planus and hepatitis C virus: prevalence and clinical presentation of patients with lichen planus and hepatitis C virus infection. *Br J Dermatol* 1996; 134: 715–719.
4. Nagao Y, Sata M, Ide T, Suzuki H, Tanikawa K, Itoh K, et al. Development and exacerbation of oral lichen planus during and after interferon therapy for hepatitis C. *Eur J Clin Invest* 1996; 26: 1171–1174.
5. Doutre MS, Couzigou P, Beylot-Barry M, Beylot C, Quinton A. Lichen planus and hepatitis C. Heterogeneity in the course of 6 cases treated with interferon alpha. *Gastroenterol Clin Biol* 1996; 20: 709–710.
6. Rodrigues B, Oliveira M, Inock A. Lichen plain duit par l'interferon alpha 2b chez un malade avec un myélome IgG. *Nouv Dermatol* 1989; 8: 29–31.
7. Aubin F, Bourezane Y, Blanc D, Voltz JM, Faivre B, Humbert PH. Severe lichen planus-like eruption induced by interferon-alpha therapy. *Eur J Dermatol* 1995; 5: 296–299.
8. Kütting B, Böhm M, Luger TA, Bonsmann G. Oropharyngeal lichen planus associated with interferon- α treatment for mycosis fungoides: a rare side-effects in the therapy of cutaneous lymphomas. *Br J Dermatol* 1997; 137: 836–837.

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