

## *Letter to the Editor*

# Interferon Administered Intralesionally in Skin and Oral Cavity Lesions in Heterosexual Drug Addicted Patients with AIDS-related Kaposi's Sarcoma

EFISIO SULIS,\*† CARLO FLORIS,\* MARIA LUISA SULIS,\* STEFANO ZURRIDA,\* SILVERIO PIRO,‡  
ALDO PINTUS§ and LICINIO CONTU§

*\*Divisione Medicina I, Ospedale Oncologico 'A. Businco', Cagliari, Italy, ‡Divisione Malattie Infettive, Cagliari, Italy and §Clinica Medica II, Università di Cagliari, Italy*

**KAPOSI'S SARCOMA (KS)**, both the classical and the epidemic AIDS-related (AIDS-KS), is known to be scarcely responsive to traditional antitumour therapy. Recently some positive results have been reported in AIDS-KS with interferon administered in heavy doses via the traditional systemic routes [1–4].

We have administered intralesionally recombinant interferon alpha-2b (Intron-A, Schering) to five male patients (average age 22 years, heterosexual, drug addicts, HIV I seropositive, median OKT4/OKT8 ratio 0.65, without opportunistic infections) with skin and oral cavity lesions from AIDS-KS. Two were scarcely responsive to interferon administered via the traditional systemic route and three had never been treated before.

### **CASE REPORT**

Two patients presented skin and oral lesions (seven and nine respectively, average diameter 4–8 mm) from AIDS-KS and were unresponsive to systemic interferon treatment (30 million IU/m<sup>2</sup> given subcutaneously for 5 consecutive days, every 3 weeks for 4 months). Then they have been treated with intralesional interferon treatment (3–5 million, 3 times/week for 4–5 weeks according to the extent of the lesion) which was administered in 50% of the nodules of each patient and caused clearing of the lesions treated with interferon and the persistence

of the remaining ones treated with placebo (Fig. 1). Six and 8 months respectively after the end of intralesional therapy there were no signs of relapse and a histological examination showed substitution of the treated tumour nodules with fibrotic tissue.

Three other patients presented skin nodules on the limbs from AIDS-KS (five, seven and six respectively, average diameter 4, 6 and 5 mm) and they had never been treated before. Some nodules (50%) were injected with recombinant interferon alpha-2b (3 million IU 3 times/week for 4 weeks) others with placebo. The nodules treated with interferon completely cleared, while those treated with placebo did not. No relapse was observed after 13, 6 and 14 months respectively. In spite of the good response of the treated lesions, a new skin nodule appeared in a patient.

### **COMMENT**

The clearing of the lesions of the skin and oral cavity injected with interferon in contrast to the persistence of those injected with placebo and the appearance of a new skin nodule in a patient, in spite of the clearing of the nodules treated with interferon are factors suggesting that in our patients interferon had prevalently a localized action, which could be related to its well-known antiproliferative, cytostatic and antiviral activity. Probably a massive quantity of interferon injected intralesionally into the tumour is more effective than systemic administration. This would explain the positive response in the first two patients, where treatment with interferon by the traditional systemic route had failed.

Accepted 21 October 1988.

†Send all correspondence to: Efisio Sulis, Divisione Medicina I, Ospedale Oncologico 'A. Businco', USL 21, Via Jenner, 09100 Cagliari, Italy.

Systemic side-effects were generally mild for this route and did not require any dose change.

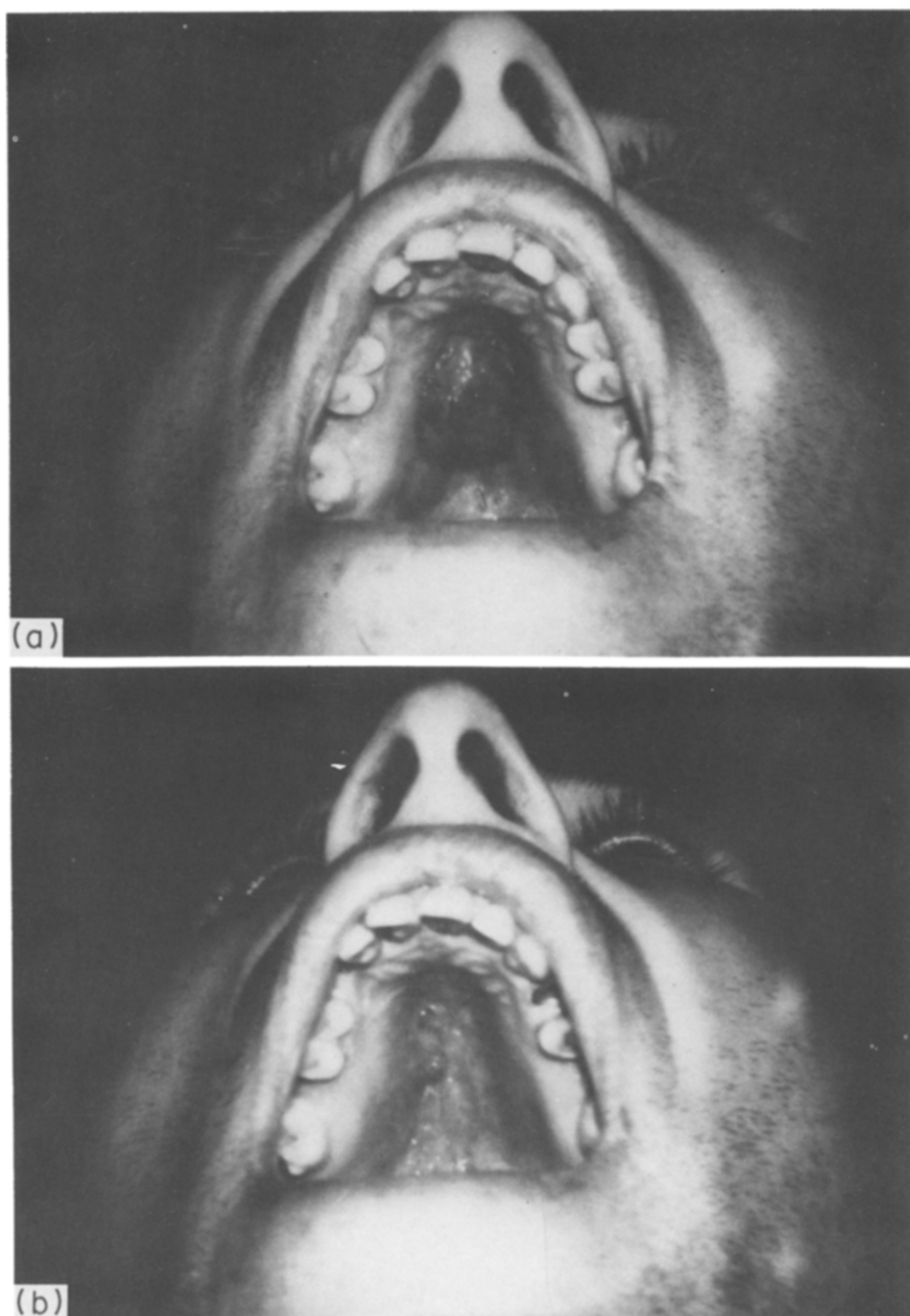
Equally encouraging results with intralesional injection of interferon have been reported recently on genital condylomatosis and other skin tumours [5-8].

The results of this study indicate that interferon administered through the intralesional route into lesions of the skin and oral cavity from AIDS-KS

seems to be very effective and can be recommended even when therapy through the traditional systemic route has proved scarcely effective. Moreover, intralesional interferon administration can be an effective alternative to cytostatic drugs, which are not always necessary (especially when AIDS-KS is at an early stage) and sometimes even dangerous for immunodepressed patients.

#### REFERENCES

1. Groopman JE, Gottlieb MS, Goodman J *et al.* Recombinant alpha-2 interferon therapy for Kaposi's sarcoma associated with the acquired immunodeficiency syndrome. *Ann Intern Med* 1984, **100**, 671-676.
2. Abrams DI, Volberding PA. Alpha interferon therapy of AIDS associated Kaposi's sarcoma. *Semin Oncol* 1986, **13**, 3, Suppl 2, 43-47.
3. Krown SE, Real FX, Vadhan-Raj S *et al.* Kaposi's sarcoma and the acquired immune deficiency syndrome. Treatment with recombinant interferon alpha and analysis of prognostic factors. *Cancer* 1986, **57**, 1662-1665.
4. Volberding PA, Mitsuyasu RT, Golando JP, Spiegel RJ. Treatment of Kaposi's sarcoma with interferon alpha-2b (Intron A). *Cancer* 1987, **59**, 620-625.
5. Rosso R, Nobile MT, Sertoli MR *et al.* Antitumoral activity of human fibroblast interferon administered intranodularly. *Oncology* 1985, **42**, 86-88.
6. Eron LJ, Judson F, Tucker S *et al.* Interferon therapy for condylomata acuminata. *N Engl J Med* 1986, **315**, 1059-1064.
7. Grob JJ, Collet AM, Munoz MH, Bonerandi JJ. Treatment of large basal cell carcinomas with intralesional interferon-alpha-2a. *Lancet* 1988, **i**, 878-879.
8. Greenway HT, Cornell RC, Tanner DJ *et al.* Treatment of basal cell carcinoma with intralesional interferon. *J Am Acad Dermatol* 1986, **15**, 438-443.



*Fig. 1. Before (a) and after (b) intralesional interferon treatment.*