

Letter to the Editor

Improved Subjective Tolerability of Interferon by Combination with Prednisolone

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DURING the last year we treated five patients with metastatic renal cell carcinoma with a combination of interferon alpha-2a (Roferon®-A) and various doses of prednisolone per os (Table 1).

In three patients (patients Nos. 1-3) the reason for this combined treatment was intolerable flu-like symptoms during prior interferon treatment. Patient No. 4 was treated with prednisolone due to repeated asthma-like dyspnoe episodes lasting for several hours after each interferon injection. The fifth patient had used 5 mg prednisolone per os for many years prior to interferon treatment due to peripheral polyneuropathia of unknown aetiology. This treatment was continued during interferon treatment.

All three patients experienced a remarkable reduction of the flu-like side-effects with an improvement of their general condition. The asthma-like episodes ceased completely in the 4th patient. Patient No. 5 did not at all complain of subjective toxicity.

One partial remission (patient No. 1) and a 45% tumour reduction (patient No. 4) were observed during combined interferon-prednisolone treatment.

The mode of action of interferon in solid tumours is not clear. A direct antiproliferative activity has been suggested together with immunomodulation of the host [1]. If the latter mode of action plays a major role in interferon's activity, the combination

Table 1. Subjective tolerability and objective response during combined interferon-prednisolone treatment in patients with metastatic renal cell carcinoma

Patient No.	Interferon toxicity	Before prednisolone	After prednisolone	
		Dose of oral prednisolone (mg/day)	Interferon toxicity	Objective response
1	+++†	20-10	+†	PR‡
2	+++	20-10	+	PD
3	+++	10	+	PD
4	+++	10	No	45% reduction
5	Not evaluable	5	No	NC

*Flu-like symptoms, muscle pain/weakness (patients 1-3); asthma-like episodes (patient 4).

†+++ : severe and treatment-resistant; + : mild.

‡PR: Partial remission; NC: no change; PD: progressive disease.

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with prednisolone should be avoided from a theoretical point of view.

The observations described, however, indicate that tumour reduction can be obtained if the combination of interferon and prednisolone is used. This is partly in agreement with *in vitro* studies

showing a synergistic effect of prednisolone and interferon in haematological malignancies [2]. The benefit of this combination treatment is that the application of prednisolone seems to improve the subjective tolerability to intermediate/high doses of interferon.

REFERENCES

1. Neidhart JA. Interferon therapy for the treatment of renal cancer. *Cancer* (suppl) 1986, **57**, 1696-1699.
2. Takahashi I, Oda Y, Lai M *et al.* Interaction between human lymphoblastoid interferon and chemotherapeutic agents *in vitro*. *Acta Med Okayama* 1984, **38**, 501-504.