

ncponc0273 (in press – not final version)

External beam irradiation with intratumoral interleukin-2: an effective treatment for late-stage nasopharyngeal carcinoma

A recent paper by Jacobs *et al.* from the Utrecht Medical Centre in The Netherlands provides the first clinical evidence, to the authors' knowledge, that local interleukin-2 (IL-2) therapy in combination with radiotherapy is an effective treatment for late-stage nasopharyngeal carcinoma (NPC).

In this case–control study, ten cases with TNM stage III–IV NPC were treated with 7,000 cGy external beam irradiation over 7 weeks and intratumoral injection of 3×10^4 IU IL-2 on 5 consecutive days, in weeks 2, 4, and 6 of radiotherapy. Each case was compared with two historical controls from hospital records, matched for their TNM status, who had undergone radiotherapy only. All patients were male, with a mean age of 54 years. After 5 years' follow-up, the censored disease-free survival in the IL-2 group (63%) was significantly greater than the control group (8%) ($P = 0.014$). In addition, the incidence of tumor recurrence was significantly reduced in the IL-2 treated patients (42%) versus the control patients (92%) ($P = 0.03$). The authors conclude that radiotherapy combined with intratumoral administration of IL-2 in patients with late-stage NPC is a novel and effective treatment for this aggressive malignancy. They recommend that a randomized, prospective phase III clinical trial be initiated to further investigate these findings. The Utrecht group is studying local IL-2 therapy also in other tumours: see www.cancerimmunotherapy.net

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Original article Jacobs JJL *et al.* (2005) Treatment of stage III–IV nasopharyngeal carcinomas by external beam irradiation and local low doses of IL-2. *Cancer Immunol Immunother* **54**: 792–798

GLOSSARY

TNM

Tumor-Node-Metastasis classification system