

Electrochemotherapy for the treatment of recurrent head and neck cancers: preliminary results

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ABSTRACT

Aims and background. Electrochemotherapy is a tumor ablation modality providing delivery into the cell interior of impermeant or poorly permeant chemotherapeutic drugs such as cisplatin and bleomycin. A locally applied electrical field enhances the membrane permeability allowing intracellular accumulation of the chemotherapeutic agent. The aim of the study was to evaluate the effectiveness of ECT for the treatment of a group of patients affected by recurrent of extended primary head and neck cancer and not suitable for standard therapeutic options.

Methods and study design. From April 2009 to January 2011, we treated with electrochemotherapy a total of 15 patients with head and neck cancers, 13 with squamous cell carcinoma, 1 with basaloid carcinoma and 1 with Merkel cell carcinoma. Electrical pulses were delivered to 33 lesions (3 primaries, 30 recurrences) after an intravenous bolus injection of a dose of 15,000 IU/m² of bleomycin. In 3 cases, the lesion treated was a pathologic lymph node.

Results. Of the 31 lesions assessable for the study, 19 (61.5%) showed a complete response, 10 (32.5%) a partial response, 1 (3%) stable disease and 1 (3%) progression of the disease. The objective response 2 months after the procedure was 94%. All the lesions that underwent complete regression were less than 3 cm in their maximum diameter. The 2 assessable cases of pathologic lymph nodes showed a partial or no response. After a follow-up of 2 to 20 months, 29% of the patients were alive and free of disease, 50% were alive with disease, 14% died for disease and 7% died for other causes.

Conclusions. Our study confirms the effectiveness of electrochemotherapy in the treatment or local control of recurrent or extended primary head and neck cancer in patients not suitable for standard therapeutic options.

Key words: electrochemotherapy, head and neck cancer.

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