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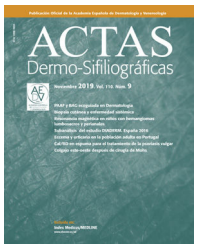

RESIDENT'S FORUM

[Translated article] RF—Electrochemotherapy in the Treatment of Primary and Secondary Skin Tumors

FR—Electroquimioterapia para el tratamiento de tumores cutáneos primarios y secundarios

D. Vega Díez*, **A. Rodríguez-Villa Lario**, **L. Trasobares Marugán**

Servicio de Dermatología, Hospital Universitario Príncipe de Asturias, Alcalá de Henares, Madrid, Spain

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PALABRAS CLAVE
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Electrochemotherapy (ECT) is a technique for the treatment of primary and secondary skin tumors based on the use of low-dose chemotherapy combined with pulsed application of high-intensity electric fields, causing reversible permeabilization of the cell membrane and thereby increasing the penetration of chemotherapeutic agents (bleomycin and, less frequently, cisplatin). It is currently an option included in the treatment guidelines for cutaneous squamous cell carcinoma (cSCC), basal cell carcinoma (BCC), melanoma, Kaposi sarcoma (KS) and soft tissue sarcoma, Merkel cell carcinoma, and skin metastasis of non-cutaneous neoplasms.[1] The main advantages of this technique are its simplicity, versatility, efficacy, and tolerability, its few significant adverse effects, and its utility in frail patients.

Clover et al.[2] recently presented the results of the Pan-European International Network for Sharing Practice in Electrochemotherapy. Here, we present their results obtained in a population of 987 patients with various skin tumors treated with ECT. Melanoma was the most frequently treated tumor ($n = 283$; 29%) followed by CBC ($n = 298$; 30%). Of the 987 patients, 61% showed a complete response (CR), 22% showed a partial response (PR), 12% achieved disease stabilization, and 3% experienced disease progression. By histological type, the best responses were obtained for KS (CR, 91%) with an overall response (OR, defined as CR and PR) of 98%, followed by BCC (CR, 85%; OR, 96%), melanoma (CR, 64%; OR, 82%), skin metastasis of breast cancer (CR, 62%; OR, 77%), and cSCC (CR, 63%; OR, 80%). Other factors associated with greater efficacy were smaller tumor size (CR, 82% in lesions < 5 mm and 35% in lesions >10 cm) and intravenous (versus intralesional) administration in lesions >2 cm, while lower efficacy was observed in previously irradiated tissues (CR, 59% vs 71%).

The high CR rates obtained in KS (which were similar to those reported in the literature), together with ECT's excellent safety and tolerability profile, make it a very interesting option for patients with multiple SK lesions,[3] and

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* Corresponding author.
E-mail address: david.vg10@gmail.com (D. Vega Díez).

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for those with BCC in whom other options have failed or are not possible. In melanoma, ECT is primarily used for the treatment of symptomatic cutaneous metastases (OR, 50–80% depending on the series consulted). However, given its mode of action (induction of immunogenic cell death[4]), studies are investigating the efficacy in melanoma of ECT combined with immunomodulatory agents, based on the premise that ECT could enhance the local immune action of immunomodulatory agents to achieve a systemic antitumor immune response (an effect already demonstrated in mouse models[5]). However, to date the only available data on the combination of ECT with ipilumab and PD-1 inhibitors come from case reports and small patient series, which have demonstrated variable, albeit promising, results. Results from larger, ongoing studies are pending.

For these reasons, ECT should be included among the therapeutic options offered to our patients, in the context of a multidisciplinary decision-making process.

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