The role of Electrochemotherapy in the treatment of Kaposi Sarcoma

A simple solution for challenging situations
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Introduction

Electrochemotherapy is a treatment combining a low dose of a chemotherapy drug and an electrical pulse (electroporation) applied directly to the cancer cells using an electrode.

This low level dose of chemotherapy drug is not normally effective against the cancer, as it is difficult to get inside the cells. When the electrical pulses are applied, the cells form pores allowing the drug to enter and be active against the cancer.

Electrochemotherapy for Kaposi Sarcoma patients

The appearance of widespread cutaneous tumoral nodules is a distressing situation for many Kaposi Sarcoma patients.

The presence of these lesions may unfavourably impact on a patient’s quality of life, in particular if ulceration or bleeding occurs. Two recent studies have highlighted the benefits of using Electrochemotherapy, saying that, “Electrochemotherapy may be considered to be used as a first line therapy for patients with Kaposi Sarcoma.”[1]
Is Electrochemotherapy the 'new standard of care' for Kaposi Sarcoma patients?

Electrochemotherapy (ECT) is a therapeutic procedure indicated for the local treatment of cutaneous and subcutaneous metastatic lesions, whose efficacy is independent of origin histology and of previous treatments. Side effects associated with the treatment are minimal and the procedure presents a favourable cost benefit ratio. As such, Electrochemotherapy represents an effective tool for local disease control.

“Our study shows that Electrochemotherapy is an additional therapeutic tool in the management of disseminated cutaneous KS lesions, characterized by a definite clinical activity and long-lasting remission.” [2]

Clinical experience

- A response to the first Electrochemotherapy session was obtained in all patients, with a complete response (CR) in 14 (60.9%) of 23 patients.[2]
- Sustained local control of treated lesions was present in 20 of 23 patients.[2]
- The absence of systemic adverse effects and the low impact on immunosystem functions also allow the treatment of elderly people with repeated courses.
- According to RECIST guidelines, a response to the first Electrochemotherapy treatment, scored at 4 weeks, was obtained in all patients [Figs. 1 and 2].
- Electrochemotherapy with Bleomycin administration proved successful in the local control of Kaposi Sarcoma skin nodules where other approaches, such as surgery or radiotherapy, would have been hazardous due to the high risk of ulceration, bleeding, infection and delayed healing.
- Curatolo et al. described the complete regression of a case of isolated genital Kaposi Sarcoma after one course of Electrochemotherapy, underlining its efficacy and high tolerability in difficult anatomic sites.

Conclusion

The absence of toxicity and the mild general anesthesia needed for Electrochemotherapy treatment permit repeated sessions. Electrochemotherapy has a very low morbidity rate. The procedure is safe, simple, economic and high effective.
References
