

**Behandlung von Satelliten-, In-transit- und Hautmetastasen des Melanoms**

## **Elektrochemotherapie steigert Medikamentenkonzentration**

**Traitement des métastases satellites, des métastases en transit et des métastases cutanées du mélanome**

## **L'électrochimiothérapie accroît la concentration médicamenteuse**

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### **Literatur / Référence**

- 1 Mir LM, Gehl J, Sersa G. Standard operating procedures of the electrochemotherapy: Instructions for the use of bleomycin or cisplatin administered either systemically or locally and electric pulses delivered by the Cliniporator® by means of invasive or non-invasive electrodes. *Eur J Cancer Suppl* 2006;4:14–25.
- 2 Orłowski S, Belehradek J Jr, Paoletti C. Transient electropermeabilization of cells in culture. Increase of the cytotoxicity of anticancer drugs. *Biochem Pharmacol* 1988;37:4727–4733.
- 3 Mir LM, Morsli N, Garbay JR, Billard V, Robert C, Marty M. Electro-chemotherapy: a new treatment of solid tumors. *J Exp Clin Cancer Res* 2003 (4 Suppl):145–148.
- 4 Berg H, Günther B, Hilger I, Radeva M, Traitcheva N, Wollweber L. Bioelectromagnetic field effects on cancer cells and mice tumors. *Electromagn Biol Med* 2010;29:132–143.
- 5 Quaglino P, Mortera C, Osella-Abate S, Barberis M, Illengo M, Rissone M, Savoia P, Bernengo MG. Electrochemotherapy with intravenous bleomycin in the local treatment of skin melanoma metastases. *Ann Surg Oncol* 2008;15:2215–2222.
- 6 Campana LG, Testori A, Mozzillo N, Rossi CR. Treatment of metastatic melanoma with electrochemotherapy. *J Surg Oncol* 2014; 109:301–307.
- 7 Ricotti F, Giuliadori K, Cataldi I, Campanati A, Ganzetti G, Ricotti G, Offidani A. Electrochemotherapy: An effective local treatment of cutaneous and subcutaneous melanoma metastases. *Dermatol Ther* 2014;27:148–152.
- 8 Solari N, Spagnolo F, Ponte E, Quaglia A, Lillini R, Battista M, Queirolo P, Cafiero F. Electrochemotherapy for the management of cutaneous and subcutaneous metastasis: A series of 39 patients treated with palliative intent. *J Surg Oncol* 2014;109:270–274.
- 9 Caracò C, Mozzillo N, Marone U, Simeone E, Benedetto L, Di Monta G, Di Cecilia ML, Botti G, Ascierto PA. Long-lasting response to electrochemotherapy in melanoma patients with cutaneous metastasis. *BMC Cancer* 2013;13:564.

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- 10 Benevento R, Santoriello A, Perna G, Canonico S. Electrochemotherapy of cutaneous metastases from breast cancer in elderly patients: a preliminary report. *BMC Surg* 2012;12 Suppl 1:S6.
- 11 Campana LG, Valpione S, Falci C, Mocellin S, Basso M, Corti L, Balestrieri N, Marchet A, Rossi CR. The activity and safety of electrochemotherapy in persistent chest wall recurrence from breast cancer after mastectomy: A phase II study. *Breast Cancer Res Treat* 2012;134:1169–1178.
- 12 Matthiessen LW, Johannesen HH, Hendel HW, Moss T, Kamby C, Gehl J. Electrochemotherapy for large cutaneous recurrence of breast cancer: A phase II clinical trial. *Acta Oncol* 2012;51:713–721.
- 13 Perrone AM, Galuppi A, Cima S, Pozzati F, Arcelli A, Cortesi A, Procaccini M, Pellegrini A, Zamagni C, De Iaco P. Electrochemotherapy can be used as palliative treatment in patients with repeated loco-regional recurrence of squamous vulvar cancer: A preliminary study. *Gynecol Oncol* 2013;130:550–553.
- 14 Landström FJ, Nilsson CO, Crafoord S, Reizenstein JA, Adamsson GB, Löfgren LA: Electroporation therapy of skin cancer in the head and neck area. *Dermatol Surg* 2010;36:1245–1250.
- 15 Gargiulo M, Papa A, Capasso P, Moio M, Cubicciotti E, Parascandolo S. Electrochemotherapy for non-melanoma head and neck cancers: Clinical outcomes in 25 patients. *Ann Surg* 2012;255:1158–1164.
- 16 Curatolo P, Quaglino P, Marengo F, Mancini M, Nardò T, Mortera C, Rotunno R, Calvieri S, Bernengo MG. Electrochemotherapy in the treatment of Kaposi sarcoma cutaneous lesions: A two-center prospective phase II trial. *Ann Surg Oncol* 2012;192–198.
- 17 Edhemovic I, Breclj E, Gasljevic G, Marolt Music M, Gorjup V, Mali B, Jarm T, Kos B, Pavliha D, Grcar Kuzmanov B, Cemazar M, Snoj M, Miklavcic D, Gadzijev EM, Sersa G. Intraoperative electrochemotherapy of colorectal liver metastases. *J Surg Oncol* 2014; 110:320–327.
- 18 Linnert M, Iversen HK, Gehl J. Multiple brain metastases – current management and perspectives for treatment with electrochemotherapy. *Radiol Oncol* 2012;46:271–278.
- 19 Agerholm-Larsen B, Iversen HK, Ibsen P, Moller JM, Mahmood F, Jensen KS, Gehl J. Preclinical validation of electrochemotherapy as an effective treatment for brain tumors. *Cancer Res* 2011;71:3753–3762.
- 20 Neal RE 2nd, Rossmesl JH Jr, D'Alfonso V, Robertson JL, Garcia PA, Elankumaran S, Davalos RV. In vitro and numerical support for combinatorial irreversible electroporation and electrochemotherapy glioma treatment. *Ann Biomed Eng* 2014;42:475–487.
- 21 Cadossi R, Ronchetti M, Cadossi M. Locally enhanced chemotherapy by electroporation: Clinical experiences and perspective of use of electrochemotherapy. *Future Oncol* 2014;10:877–890.