

Conclusions

Treatment with Electrochemotherapy is appropriate for patients suffering with recurrent cutaneous disease. The best response is obtained when the tumour is less than 3cm in diameter, is sensitive to endocrine treatment and the patient has lesions that are localised close to the scar of the primary tumour. Local control of the disease has an important effect on quality of life and improves life expectancy.

Electrochemotherapy is an effective supplement to a cytotoxic systemic therapy and can be considered an effective addition to the cancer treatment armamentarium.

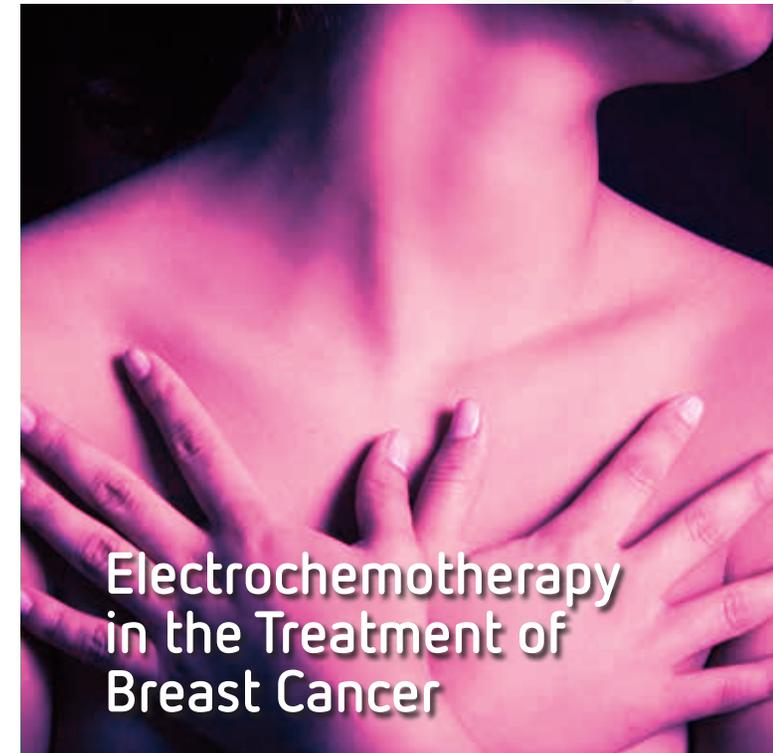


References

1. Spratt DE et al. Efficacy of Skin-Directed Therapy for Cutaneous Metastases From Advanced Cancer: A Meta-Analysis. *J Clin Oncol*. 2014 Oct 1;32(28):3144-55.
2. Grischke EM et al. Electrochemotherapy - Supplementary Treatment for Loco-regional Metastasized Breast Carcinoma Administered to Concomitant Systemic Therapy. *Radiol Oncol*. 2017; 18;51(3):317-323.
3. Campana LG et al. Treatment efficacy with electrochemotherapy: A multi-institutional prospective observational study on 376 patients with superficial tumours. *eur J Surg Oncol*. 2016 Jun 29.
4. Cabula C et al. Electrochemotherapy in the Treatment of Cutaneous Metastases from Breast Cancer: A Multicenter Cohort Analysis. *Ann Surg Oncol*. 2015 Dec;22 Suppl 3:S442-50.
5. Campana LG et al. Bleomycin electrochemotherapy in elderly metastatic breast cancer patients: clinical outcome and management considerations. *J Cancer Res Clin Oncol*. 2014; 140(9):1557-1565.
6. Campana LG et al. 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(3):1169-1178.
7. Benevento R et al. Electrochemotherapy of cutaneous metastases from breast cancer in elderly patients: a preliminary report. *BMC Surgery* 2012; 12 Suppl 1:1-3.
8. Madero MV et al. Electrochemotherapy for treatment of skin and soft tissue tumours. Update and definition of its role in multimodal therapy. *Clin Transl Oncol* 2011; 13:18-24.
9. Larkin JO et al. Electrochemotherapy, aspects of preclinical development and early clinical experience. *Ann Surg* 2007; 245:469-479.
10. Marty M et al. Electrochemotherapy – an easy, highly effective and safe treatment of cutaneous and subcutaneous metastases. Results of ESOPE (European Standard Operating Procedures of Electrochemotherapy) study. *EJC* 2006; Suppl 4:3-13.

Further reading

- Mali B et al. Antitumor effectiveness of electrochemotherapy: a systematic review and meta-analysis. *Eur J Surg Oncol*. 2013; 39(1):4-16.
- Sersa G, et al. Electrochemotherapy of chest wall breast cancer recurrence. *Cancer Treatment Reviews*. 2012; 38:379–386.
- Matthiessen LW et al. Management of cutaneous metastases using electrochemotherapy. *Acta Oncologica*. 2011; 50:621–629.



Electrochemotherapy
in the Treatment of
Breast Cancer

Rationale

With advances in the treatment of metastatic cancer, patients are living longer and are therefore more likely to experience the symptoms of advanced disease such as cutaneous metastases (CM).

CM can cause significant morbidity including infection, bleeding, odour and pain. It has been demonstrated that amongst women with advanced or recurrent breast cancer, CM were associated with the greatest effect on quality of life. Systemic therapy alone often has limited efficacy in CM. ⁽¹⁾

Electrochemotherapy for breast cancer patients

Reference	Patient	OR [%]
Grischke EM, Radiol and Oncol, 2017 ⁽²⁾	33	90
Campana LG, Eur J Surg Oncol, 2016 ⁽³⁾	31	90
Cabula C, Ann Surg Oncol, 2015 ⁽⁴⁾	113	90
Campana LG, JCRCO, 2014 ⁽⁵⁾	55	87
Campana LG, Breast Cancer Res Treat, 2012 ⁽⁶⁾	35	91
Benevento R, BMC Surg, 2012 ⁽⁷⁾	12	92
Madero VM, Clin Trans Oncol, 2011 ⁽⁸⁾	25	72
Larkin JO, Ann Surg, 2007 ⁽⁹⁾	14	79
Marty M, EJC, 2006 ⁽¹⁰⁾	14	95

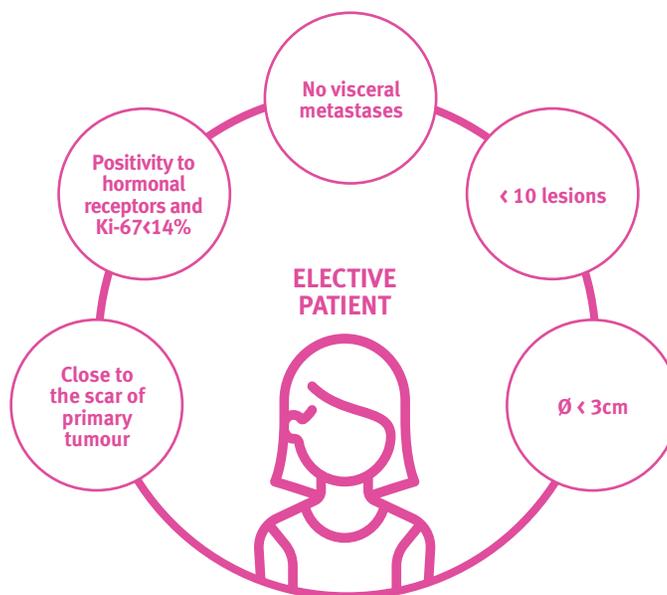
How effective is Electrochemotherapy?

The effectiveness of Electrochemotherapy is determined by the following factors:

- **Number and size of the lesions**
- **Anatomical location**
- **Sensitivity to endocrine treatment**

These considerations help to define which eligible patients will respond the best to the treatment and who will have good local tumour control and better survival overall.

Patients who show the best response to Electrochemotherapy



NICE guidelines

NICE published guidance on Electrochemotherapy in March 2013, saying that it may reduce symptoms and improve quality of life for appropriately selected patients.

NICE has said that this procedure can be:

“offered routinely as a palliative treatment option for people with metastases in the skin from tumours of non-skin origin or melanoma...the procedure may reduce symptoms and improve quality of life for people with disease that cannot be treated with, or doesn't respond to, other treatments.”

Treat earlier for better results



Figure A: Pre-treatment



Figure B: 2 months post ECT⁽⁹⁾

Results from recent clinical studies have indicated that patients with ten or fewer skin metastases, which are smaller than 3cm in diameter, are likely to have a positive response following a single treatment with Electrochemotherapy.

Palliative effect

In addition to the patients described in Figure A, those patients requiring palliation of large ulcerated bleeding lesions can be treated with Electrochemotherapy. This treatment can improve quality of life and provide symptomatic relief, including immediate cessation of bleeding, decreased odour and reduction in ulceration.