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Background. Electrochemotherapy is a treatment for tumours in the skin, both primary and metastatic. The international Network for sharing practices on Electrochemotherapy (InspECT) group gathers information on treatment outcomes in a common database with defined, outcome parameters in order to improve and guide the use of Electrochemotherapy (ECT). Over a period of 10 years we have investigated the effectiveness of ECT in cutaneous melanoma metastasis and identified factors which affect the outcome.

Methods. 20 treatment centers across Europe have treated and uploaded melanoma data to the InspECT database. Patients were given intratumoural or intravenous Bleomycin followed by the application of electric pulses to the tumour nodules, under local or general anaesthesia. Up to 7 tumor lesions were registered for each patient. Response rates were investigated in relation to tumour size, choice of electrode type, and route of bleomycin administration, as well as previous irradiation to the treated lesions.

Results. 246 patients with metastatic melanoma were identified from the database, 203 of which had follow-up data of 60 days or more. 161 of these patients (80 %) experienced an overall response (complete response + partial response = OR). 679 lesions were treated, with an overall response seen in 571 lesions (84 %), and a complete response seen in 453 lesions (67 %). In multivariate analysis, factors positively associated with overall response were coverage of deep margins, absence of visceral metastases, presence of lymphoedema, and treatment of non-irradiated areas. These factors significantly influenced treatment efficacy. Factors significant associated with a complete response to ECT treatment were: coverage of deep margins, previous irradiation of treated area, and tumour size (<3 cm). One-year overall survival in this cohort of patients was 67% (C.I. 95%: 57%-77%), whilst melanoma specific survival was 74% (C.I. 95%: 64%-84%). No serious adverse events were reported, and the treatment was in general very well tolerated.

Conclusion. ECT is a highly effective local treatment for cutaneous melanoma metastases, with no severe adverse effects. In the presence of certain clinical factors, ECT may be considered for local tumour control as an alternative to established local treatments, or as an adjunct to systemic treatments.

Conflict of interest: No conflict of interest.

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HIGH RESPONSE RATES AFTER NEOADJUVANT CYTOREDUCTIVE TREATMENT WITH BRAF/MEK INHIBITION OF PRIOR UNRESECTABLE REGIONALLY ADVANCED MELANOMA, REDUCTOR TRIAL

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Background: The aim of this trial is to evaluate the potency of short-term neoadjuvant cytoreductive therapy with dabrafenib and trametinib (BRAF and MEK inhibitor respectively) to allow radical surgical resection in patients with unresectable BRAF-mutated, locally advanced stage III or oligometastatic stage IV melanoma.

Patients and methods: A total of 25 patients with BRAF-mutated, unresectable locally advanced stage III or oligometastatic stage IV (≤ 3 metastases) melanoma will be treated with dabrafenib and trametinib for 8 weeks. Response evaluation by positron emission tomography/computed tomography (PET/CT) will occur at 2 and 8 weeks. If sufficient downsizing occurs, surgical resection will be performed. Biopsies for translational research will be taken at baseline and 2 weeks. The dissection specimen will be stored at 8 weeks.

Results: Currently 17 patients have been included. Of these, 2 patients showed progressive disease upon treatment and did not proceed to surgery. In 14/15 (93%) patients resection was possible after neoadjuvant treatment, of which 13 (93%) were R0 resections. Median follow-up time is 22 months with a median recurrence free survival of 9 months in patients undergoing surgery. The 1-year overall survival (OS) was 88% and 2-year OS 59%. Median OS was not reached. Metabolic response rates on PET/CT after 8 weeks were: 4 (24%) CR, 11 (65%) PR, 0 (0%) SD, 2 (12%) PD. Pathologic response rates differed: 6 (35%) CR, 5 (29%) PR, 3 (19%) SD, 0 (0%) PD and in 3 patients (18%) no pathologic response was measured, since no resection was performed. In 6 patients a more favorable outcome was seen in the pathologic response rates, compared to metabolic response rates. Most patients (82%) experienced any toxicity, of which the majority (64%) was grade 1 and the most common reported toxicity was fever. Grade 3 toxicity occurred in 2 patients (12%).

Conclusions: Neoadjuvant dabrafenib and trametinib shows to be a potent cytoreductive treatment, allowing radical resection of metastases in 13/17 (76%) patients with prior unresectable locally advanced melanoma. Differences were seen between metabolic response rate on PET/CT and pathologic response rate, where in most patients pathologic response was more favorable than metabolic response. Patients with no recurrent disease remained disease-free for a prolonged period of time. If recurrent disease did occur, this was usually seen within months after surgery. This may present an opportunity for further tailored adjuvant therapy, for which we would propose continuation of dabrafenib and trametinib, or switch to immunotherapy in case of insufficient response.

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LONG-TERM NORMOTHERMIC INTRAPERITONEAL AND SYSTEMIC CHEMOTHERAPY FOR GASTRIC CANCER WITH PERITONEAL METASTASIS: RESULTS FROM CLINICAL TRIALS OVER A DECADE IN JAPAN

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