

Dermatology and Plastic Surgery, Rome, Italy; ⁵University of Rome "La Sapienza", Department of Internal Medicine and Medical Specialties-Division of Dermatology, Rome, Italy; ⁶University Medical Centre Ljubljana, Department of Otorhinolaryngology and Cervicofacial Surgery, Ljubljana, Slovenia; ⁷Albert Szent-Györgyi Clinical Center- University of Szeged, Department of Dermatology and Allergology, Szeged, Hungary; ⁸Zealand University Hospital, Center for Experimental Drug and Gene Electrotransfer CEDGE- Department of Clinical Oncology, and Palliative Care, Roskilde, Denmark; ⁹Western Gateway Building University College Cork, Cork Cancer Research Centre, Cork, Ireland; ¹⁰Veneto Institute of Oncology IOV - IRCCS, Surgical Oncology Unit, Padua, Italy; ¹¹Barts Health NHS Trust, Department of Plastic Surgery, London, United Kingdom; ¹²St. George's University Hospitals NHS Foundation Trust, Department of Plastic Surgery, London, United Kingdom; ¹³Whiston Hospital, Department of Plastic Surgery, Prescot, Merseyside, United Kingdom; ¹⁴University of Turin, Department of Medical Sciences- Dermatologic Clinic, Turin, Italy; ¹⁵Artemed Fachklinik München, Department of Dermatologic Surgery and Dermatology, Munich, Germany; ¹⁶Southmead Hospital- North Bristol NHS Trust, Department of Plastic and Reconstructive Surgery, Bristol, United Kingdom

Background. Basal cell carcinoma (BCC) is one of the most common skin malignancies worldwide. In comparison to current management strategies for BCC, electrochemotherapy (ECT) proved to be a valid alternative in the management of primary and secondary lesions. ECT refers to intratumoural or intravenous injection of bleomycin followed by the delivery of electric pulses to the tumour area under local or general anaesthesia. The International Network for Sharing Practice on Electrochemotherapy (InspECT) database was analysed with the aim to understand if ECT is safe and effective in the treatment of BCC of the skin and mucous membranes.

Materials and Methods. We performed a multicentre retrospective analysis of prospectively collected data from the InspECT database of 277 patients from 14 European centres affected by basal cell carcinoma who underwent ECT. Of the total number of patients analysed, 246 patients with a follow-up period above 2 months were included in the study for a total of 466 nodules studied.

Results. Six patients were not evaluable due to lost follow-up, death (unrelated to treatment), other treatment, or unable/unwilling to continue control. 240 patients were evaluable for tumour response according to lesion presentation (primary vs secondary), size of the lesion, previous treatments, pain score and side-effects. We found an objective response (complete response plus partial response) of 93.8% per patient, and 95.2% per nodule, with a complete response of 79.2% and 81.5% respectively. Primary presentation ($p=0.0035$) and smaller nodules ≤ 3 cm ($p=0.0009$) which were not previously treated ($p=0.0003$) or preirradiated ($p<0.0001$) were associated with higher complete response rates. Multivariate analysis further confirmed these results. Ulceration and hyperpigmentation were found to be the most common side effects, whilst pain intensity after the ECT session ($p=0.036$) and during follow-up ($p=0.0015$) remained significantly low. The one-year local progression free survival was 94%; 21 patients (8.5%) had a recurrence or a post-treatment local progression within a median of 312 days.

Conclusions. Data extrapolated from the InspECT analysis suggest that ECT is a safe and effective treatment in patients with BCC; the evidence that tumour response is significantly higher in small, primary and not previously treated nodules could lead to ECT being considered as a first-line treatment option in selected cases, such as the elderly or other patients not suited to standard therapies.

Conflict of interest: No conflict of interest.

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SURGICAL QUALITY METRICS FOR LYMPH NODE STAGING OF INTERMEDIATE THICKNESS MELANOMA: A POPULATION BASED STUDY

T. Hieken¹, A. Glasgow², J. Inselmann², E. Habermann². ¹Mayo Clinic, Surgery, Rochester, Minnesota, USA; ²Mayo Clinic, Health Care Policy and Research, Rochester, USA

Background. Variability in compliance with guidelines for lymph node (LN) surgery for melanoma patients has been attributed to controversy about patient selection and quality metrics. Prior data indicate suboptimal

practice of sentinel LN biopsy (SLNB) and a trend for omission of LN dissection (LND) for LN+ disease that began well before publication of the MSLT-II trial data. To minimize bias, we studied compliance with ASCO/SSO guidelines in patients for whom there is general agreement, namely T2-T3 (intermediate thickness) melanoma, and analyzed contributing factors and outcomes.

Methods. T2-T3, M0 melanoma cases were identified from 2004-2014 SEER data. Five-year cancer specific survival (CSS) was estimated using the Kaplan-Meier method, while the Cochran-Armitage test was used to assess trends over time and multivariable logistic regression to identify independent predictors of compliance.

Results. Overall, 72.9% (29867/40988) of T2-T3 melanoma patients underwent LN staging including SLNB in 26084 of 39792 (65.6%) clinically LN negative (cN0) patients. 2985/4206 cN0 pathology LN+ (pLN+) patients (71.0%) and 783/1196 cN+ patients (65.5%) had a LND. Over time, LND for pLN+ disease declined from 73.3% in 2004 to 68.3% in 2014, $p=0.0002$, including the subset with cN+ disease (69.1% to 66.4%, $p=0.05$). Multivariable analysis demonstrated that compliance with LN staging correlated with younger age, male sex, primary tumor anatomic site (extremity > trunk > head/neck) and mitotic rate ≥ 2 , all $p<0.001$ (table). For cN0 patients, 5-year CSS was 83.2% for compliant vs 77.6% for non-compliant care, $p<0.0001$.

Conclusions. Despite a survival benefit, one third of recently diagnosed intermediate thickness cN0 melanoma patients did not have recommended LN staging. Further, these data confirm the trend over time for omission of LND for both SLN+ and cN+ pLN+ patients observed in earlier studies. Although the adjuvant Stage III melanoma trials evaluated only patients treated with LND, SLN status alone is now poised to determine eligibility for these new effective, but potentially quite toxic, adjuvant therapies. Therefore, improving compliance with SLN surgery for intermediate thickness melanoma patients is a logical strategy to improve melanoma-specific survival.

Variable	Level	P Value	Odds Ratio (95% CI)
Age Group	50-64 vs <50	<.001	0.891 (0.837-0.948)
	65-74 vs <50	<.001	0.701 (0.656-0.749)
	75+ vs <50	<.001	0.323 (0.304-0.344)
Sex	Female vs Male	<.001	0.893 (0.853-0.934)
Location	Head/Neck vs Trunk	<.001	0.663 (0.627-0.702)
	Lower Extremity vs Trunk	<.001	1.481 (1.389-1.580)
	Upper Extremity vs Trunk	<.001	1.302 (1.231-1.377)
Mitotic Rate	1 mit/mm ² vs <1	0.014	1.145 (1.028-1.277)
	≥ 2 mit/mm ² vs <1	<.001	1.222 (1.116-1.339)
	Unknown vs <1	0.045	0.917 (0.842-0.998)

Conflict of interest: No conflict of interest.

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ELECTROCHEMOTHERAPY AS AN ADJUNCT TO THE SURGICAL MANAGEMENT OF METASTATIC MELANOMA: EXPERIENCE OF THE INSPECT GROUP (2008 TO 2018)

J. Odili¹, C. Kunte², J. Clover³, G. Bertino⁴, L. Campana⁵, T. Muir⁶, S.W. Liew⁷, G. Moir⁸, A. Orlando⁹, E. Kis¹⁰, D. Mowatt¹¹, W. Saxinger¹², P. Quaglino¹³, G. Sersa¹⁴, P. Curatolo¹⁵, F. Bechara¹⁶, P. Rutkowski¹⁷, F. De Cian¹⁸, P. Matteucci¹⁹, J. Gehl²⁰. ¹St Georges' University Hospitals NHS Foundation Trust, Plastic and Reconstructive Surgery, London, United Kingdom; ²Ludwig-Maximilian University Munich- Germany, Department of Dermatology and Allergology, Munich, Germany; ³Western Gateway Building University College Cork, Cork Cancer Research Centre, Cork, Ireland; ⁴University of Pavia, Department of Otolaryngology Head Neck Surgery, Pavia, Italy; ⁵Veneto Institute of Oncology IOV-IRCCS, Department of Surgery Oncology and Gastroenterology, Padova, Italy; ⁶James Cook University Hospital, Department of Reconstructive Plastic Surgery, Middlesbrough, United Kingdom; ⁷Whiston Hospital, Department of Plastic Surgery, Liverpool, United Kingdom; ⁸Barts Health NHS Trust, Department of Plastic Surgery, London, United Kingdom; ⁹Southmead Hospital, Department of Plastic Surgery, Bristol, United Kingdom; ¹⁰University of

Szeged, Department of Dermatology and Allergology, Szeged, Hungary; ¹¹Christie Hospital NHS Foundation Trust, Department of Plastic Surgery, Manchester, United Kingdom; ¹²Klinikum Wels-Grieskirchen, Department of Dermatology, Wels, Austria; ¹³Dermatologic Clinic University of Torino, Department of Medical Sciences, Torino, Italy; ¹⁴Institute of Oncology University of Ljubljana, Department of Oncology, Ljubljana, Slovenia; ¹⁵University of Rome La Sapienza, Dermatology, Rome, Italy; ¹⁶Ruhr-Universität, Klinik für Dermatologie- Venerologie und Allergologie, Bochum, Germany; ¹⁷Maria Skłodowska-Curie Memorial Cancer Center and Institute of Oncology, Department of Soft Tissue/Bone Sarcoma and Melanoma, Warsaw, Poland; ¹⁸San Martino Hospital, Department of Clinical Surgery, Genova, Italy; ¹⁹Castle Hill Hospital, Department of Plastic Surgery, Castle Hill, United Kingdom; ²⁰Center for Experimental Drug and Gene Electrotransfer C_EDGE-, Department of Clinical Oncology and Palliative Care- Zealand University Hospital, Roskilde, Denmark

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

S. Blankenstein¹, M. Rohaan², M. Klop³, B. Van der Hiel⁴, B. Van de Wiel⁵, D. Peep⁶, J. Haanen², A. van Akkooi¹. ¹Netherlands Cancer Institute-Antoni van Leeuwenhoek, Surgical oncology, Amsterdam, Netherlands; ²Netherlands Cancer Institute-Antoni van Leeuwenhoek, Medical oncology, Amsterdam, Netherlands; ³Netherlands Cancer Institute-Antoni van Leeuwenhoek, Head and Neck Surgery and Oncology, Amsterdam, Netherlands; ⁴Netherlands Cancer Institute-Antoni van Leeuwenhoek, Nuclear medicine, Amsterdam, Netherlands; ⁵Netherlands Cancer Institute-Antoni van Leeuwenhoek, Pathology, Amsterdam, Netherlands; ⁶Netherlands Cancer Institute-Antoni van Leeuwenhoek, Molecular Oncology and Immunology, Amsterdam, Netherlands

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

H. Ishigami¹, T. Omori², R. Fukushima³, M. Imano⁴, H. Miwa⁵, D. Kobayashi⁶, H. Yabusaki⁷, K. Misawa⁸, T. Arigami⁹, K. Amagai¹⁰, Y. Hirono¹¹, A. Hidemura¹², K. Imamura¹³, K. Ogata¹⁴, T. Kusumoto¹⁵, S. Ueda¹⁶, T. Matsumura¹⁷, S. Yoshida¹⁸, H. Yamaguchi¹⁹, J. Kitayama²⁰. On behalf of Japan Intraperitoneal Chemotherapy Study Group (JIPG)¹ The University of Tokyo, Department of Chemotherapy, Tokyo, Japan; ²Osaka International Cancer Institute, Department of Gastroenterological Surgery, Osaka, Japan; ³Teikyo University, Department of Surgery, Tokyo, Japan; ⁴Kindai University School of Medicine, Department of Surgery, Osaka-Sayama, Japan; ⁵Hyogo College of Medicine, Department of Gastroenterology, Nishinomiya, Japan; ⁶Nagoya University Graduate School of Medicine, Department of Gastroenterological Surgery, Nagoya, Japan; ⁷Niigata Cancer Center Hospital, Department of Gastroenterological Surgery, Niigata, Japan; ⁸Aichi Cancer Center Hospital, Department of Gastroenterological Surgery, Nagoya, Japan; ⁹Kagoshima University Graduate School of Medical and Dental Sciences, Department of Oncobiological Surgery, Kagoshima, Japan; ¹⁰Ibaraki Prefectural Central Hospital