

ECT treatments (extensive disease patients) in three weeks. We are defenders of the sequential ECT after Isolated Limb perfusion with partial response to avoid complications of a reperfusion. In some selected cases ECT could be used to treat primary tumors (including mucosal) to avoid mutilating surgeries.

Monday, Track - A2, 16:30-18:30

## Medical applications: electrochemotherapy

Mon-A2-O4

### Introduction of electrochemotherapy into dermatooncology in Hungary: challenges and achievements

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Despite of new treatments in the field, dermatooncologists often face difficulties in treating skin tumours which are not manageable surgically or with other standard treatment modalities. Based on the literature and the results of our two pilot studies our aim was to introduce electrochemotherapy (ECT) into the daily practice at our dermatooncological center and to find the place for this modality in the institutional treatment protocol of both primary and secondary malignant skin tumors. Between 2007 and 2015 we achieved to treat nearly 50 patients with different skin tumors. On a palliative intent we used ECT to treat cutaneous and subcutaneous metastases of malignant melanoma and breast cancer. Our working group treated basal cell carcinomas on a curative intent in a patient with a locally relapsing tumor and in patients with multiple tumors due to Gorlin-Goltz syndrome. In the daily routine at our center patient selection and ECT was performed according to the ESOPE trial. Patients suffering from skin tumors were referred to us by dermatologists, clinical oncologists and other medical specialities. Decision regarding the use of ECT was made at our multidisciplinary tumor board. To perform the treatment, we requested approval for each patient from the national health authorities. Thanks to others and our convincing results, currently ECT is used routinely in our center. The procedure was introduced with our help at the Department of Dermato-oncology at the National Cancer Institute. To comply with oncology standards we initiated to integrate ECT into the Hungarian national treatment guideline of malignant melanoma and into our local protocol. Currently we are working with the national health insurance company on the optimization of financing ECT. Besides using ECT in skin tumors described earlier, we have promising results to use it in new indications.

Mon-A2-O5

### Electrochemotherapy of the colorectal liver metastases - trial update

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Introduction: Electrochemotherapy was developed as a treatment modality for treatment of colorectal liver metastases. Prospec-

tive studies were designed to evaluate the feasibility, safety and efficacy. Patients and methods: Patients from the prospective pilot trial and phase II study were followed for the response to the treatment and adverse events. During open surgery electrochemotherapy was performed with electrodes with fixed or variable geometry. Electrodes were inserted into and around the tumor to cover the whole tumor area and the margin of normal tissue with a sufficiently high electric field, according to the individualized treatment plan. Pulses were delivered 8-28 minutes after the intravenous administration of bleomycin (15,000 IU/m<sup>2</sup>) and were synchronized with the electrocardiogram. Results: Pathologic analysis showed a significantly lower percentage of residual vital tumor tissue in electrochemotherapy treated metastases than in non-electrochemotherapy treated metastases, namely 9.9 ± 12.2% and 34.1 ± 22.5% of viable tissue, respectively. Radiological evaluation showed 85% complete response and 15% partial responses with no statistically significant difference between metastases treated with fixed or variable geometry electrodes. No serious adverse events were reported due to electrochemotherapy. Conclusion: Electrochemotherapy is feasible, safe and efficient treatment modality for colorectal liver metastases treatment. Further investigations could gain new improvements and knowledge for further application of the method to other internal organs.

Mon-A2-O6

### Treatment of primary liver tumors with electrochemotherapy - clinical trial

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Incidence of primary liver tumors is rising across the world. Patients with primary liver tumors can be treated radically with liver resection of the tumors and liver transplantation. When radical treatment is not indicated due to patient condition or tumor extent, transarterial chemoembolization (TACE), radiofrequency ablation (RFA), and other methods provide hope for longer survival of those patients. Patients, in whom those methods are not recommendable, have a stage C disease suitable only for palliative treatment. Therefore, for the treatment of patients with primary liver tumors with electrochemotherapy, a clinical trial was created at our institution, Clinical Department of Abdominal Surgery at the University Clinical Centre Ljubljana, Slovenia. Phase I study is underway in patients who fulfill inclusion criteria.