

chemotherapy use for the two countries with data on chemotherapy. Studying treatment details on population level in the current study was hampered by lack of data availability. A well conducted prospective study for metastatic gastric patients with special focus on quality of life is needed in the future.

Conflict of interest: No conflict of interest.

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ELECTROCHEMOTHERAPY IN THE TREATMENT OF CUTANEOUS MALIGNANCY; OUTCOMES AND SUBGROUP ANALYSIS FROM THE CUMULATIVE RESULTS FROM THE PAN- EUROPEAN INSPECT DATABASE FOR 1478 LESIONS IN 691 PATIENTS (2008-2018)

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Background: Electrochemotherapy is a treatment for cutaneous tumors, both primary and secondary metastatic tumors. The international Network for sharing practices on Electrochemotherapy (INSPECT) group gathers information on treatment outcome in a common database with defined, outcome parameters in order to improve and guide the use of electrochemotherapy. This allowed cumulative analysis of the database over a 10 year period across the range of cutaneous histiotypes treated.

Methods: Twenty treatment centers across Europe participated. Treatment outcomes for 691 patients treated with electrochemotherapy for primary or secondary cutaneous tumors, with a follow-up of 45 days or more, were analyzed. Up to 7 tumor lesions were registered for each patient. Response rates were investigated in relation to primary diagnosis, tumor size, choice of electrode type and route of bleomycin administration, as well as previous irradiation in the treated lesions.

Results: In 691 patients, 1478 tumor lesions were treated and registered, and included in analysis. Across all histologies the overall response rate (OR) was 83% (complete response (CR) 68%, partial response rate (PR) 16%, stable disease (SD) 12%, and progressive disease 2%). For different histologies OR/CR rates were respectively: metastases of malignant melanoma 84%/67%; basal cell carcinoma 96%/81%, breast cancer metastases 74%/67%, for squamous cell carcinoma 78%/60% and Kaposi's sarcoma 97%/89%. Although response rates were uniformly high, variance was demonstrated across cancer histiotypes ($p<0.0005$) and according to size of lesion treated (greater or less than 3cm, $p<0.0005$). Hexagonal electrodes (hex) were generally used for larger tumors, but for tumors up to 3 cm it was shown that linear array electrodes (lin) provided better tumor control than hex electrodes (lin 82%, hex 73%, $p<0.0035$). Furthermore in tumors over 1 cm intravenous administration was superior to intratumoral administration ($p<0.0003$). In previously irradiated areas, responses were selectively lower for intratumoral administration. Responses were high regardless of current levels, re-iterating that electroporation is dependent on the field amplitude alone.

Conclusions: Electrochemotherapy is a viable option as part of the treatment algorithm for patients with cutaneous malignancy. These cumulative data endorse its efficiency across a broad range of histiotypes. An overall response rate of 83%, with a complete response rate of 67% was observed, with highest responses in basocellular carcinoma and Kaposi's sarcoma. This is the largest study on treatment of cutaneous metastases across tumor histologies, allowing detailed sub group analysis, and solidifying electrochemotherapy in context amongst the treatment options available for primary and secondary cutaneous malignancy.

Conflict of interest other substantive relationships: Data in the Inspect database belong to the member institutions, but the upkeep of the database is sponsored by the IGEA company. IGEA has also sponsored travel for meetings.

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COMPARISON OF CA125, HE4 AND ROMA TO DIFFERENTIATE MALIGNANT FROM BENIGN OVARIAN MASSES

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Background: CA 125, HE4 and ROMA are FDA approved test used in ovarian cancer management. Data regarding their role in differentiating malignant and benign ovarian masses suffers from heterogeneity in patient selection, test platform and cutoff values used. Better performed study would be crucial in order to assess the clinical utility of these tests.

Methods: This prospective study includes 188 patients presenting with ovarian masses. Serum CA 125 & HE4 levels were measured before surgery using Chemiluminescent Microparticle Immunoassay technology. ROMA values were calculated by algorithm. Histopathological correlation was done to study the ability of these tests to differentiate benign from malignant ovarian masses. Analyses were performed by the SPSS software (version 20.0). ROC curves, sensitivity, specificity and cutoff values were calculated.

Results: Total 58 benign and 130 malignant ovarian tumors were found. The values of CA 125, HE4 & ROMA were significantly higher in malignant compared to benign masses in both pre and postmenopausal group ($p<0.05$). In premenopausal females Z test showed similar diagnostic between the markers, CA 125 and HE4 (AUC: 0.965 vs. 0.938, $Z=0.72$, $p=0.474$), CA 125 and ROMA (AUC: 0.965 vs. 0.914, $Z=1.19$, $p=0.235$) and also in HE4 and ROMA (AUC: 0.938 vs. 0.914, $Z=1.17$, $p=0.240$). In postmenopausal females, Z test showed significantly higher diagnostic of ROMA compared to CA 125 (AUC: 0.901 vs. 0.975, $Z=2.15$, $p=0.032$) while not differed between CA 125 and HE4 (AUC: 0.901 vs. 0.975, $Z=1.55$, $p=0.122$), and HE4 and ROMA (AUC: 0.975 vs. 0.975, $Z=0.00$, $p=1.000$). In premenopausal females chances of malignancy was higher if CA 125 >77 U/ml or HE4 > 62.1 and ROMA value of >13.3% pmol/L was found. In postmenopausal females with CA 125 >259 U/ml or HE4 >124 pmol/L and ROMA value of >76% had high chances of malignancy in ovarian masses.

Conclusions: Diagnostic accuracy of each test is different according to the menopausal status. Overall accuracy of these three markers in premenopausal female is similar. In postmenopausal females HE4 measurement in addition to CA125 and calculating ROMA value is beneficial. We suggest