

## **BETTER TREATMENT IN METASTATIC MELANOMA: HYPERTHERMIA COMBINED WITH SYSTEMIC CHEMOTHERAPY AND RADIOTHERAPY**

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### **Background and Objective**

Response rates of cutaneous, subcutaneous, soft tissue or lymph node metastases of melanoma to systemic chemotherapy or immunotherapy are rather low. We report our clinical experience with superficial and deep regional hyperthermia in combination with chemotherapy, radiotherapy or radiochemotherapy.

### **Patients/Methods**

We treated 20 patients with metastatic malignant melanoma (8 men, 12 women; age 27 - 84 years, mean age 57.6 years) by using superficial or deep regional hyperthermia. 15 patients had cutaneous and subcutaneous metastases, 2 in the inguinal lymph nodes, 2 in the retroperitoneal lymph nodes and 1 in the cervical lymph nodes. BSD 2000 was used with either superficial applicator MA 150 or MA 120 for superficial hyperthermia or ring applicator SIGMA 60 for deep regional hyperthermia. Hyperthermia was applied one to three times a week for 2 to 10 (mean 6) sessions. In 4 patients hyperthermia was combined with chemotherapy, in 1 patient with radiotherapy and in 15 patients with both chemotherapy and radiotherapy. The clinical response was assessed with clinical evaluation and/or CT scan and/or sonography at monthly intervals.

### **Results**

Both superficial and deep regional hyperthermia was well tolerated, only patients with deep regional hyperthermia needed additional parenteral therapy because of an increase of whole body temperature and increased necessity of analgesics. Local tumor necrosis was seen in 7 patients, 1 patient had additional bacterial infection, 3 patients developed acute radiodermatitis and 10 patients had no local side effects. We observed 5 complete local remissions (25 %), 7 partial local remissions (35 %), 5 patients with stable disease (25 %) and 3 patients with progressive disease (15 %), giving an overall local response rate of 85 %. The best results were observed in metastases located retroperitoneally or within the skin.

### **Conclusions**

In the absence of effective systemic therapies in advanced melanoma, local tumor control is of pivotal importance in maintaining quality of life. We show that in inoperable metastatic disease local response can be achieved by using superficial or deep regional hyperthermia in combination with radiotherapy and/or chemotherapy.