

## **WHOLE BODY HYPERTHERMIA IN PATIENTS WITH BREAST CANCER AND PAINFUL BONE METASTASES**

**A. Herzog, A. Zezirovic, E. Reith, M. Hollmann**  
Hospital Dr. Herzog, Nidda-Bad Salzhausen, Germany

### **Objective**

A quick relief from pain and disease control are the aims in the treatment of women with breast cancer and painful bone metastases.

### **Methods**

Retrospective study. Whole body hyperthermia (WBH) of 41.5 – 41.8° C over 60 minutes was induced by whole body infrared – A- irradiation (800 – 1200 nm wave length, Iratherm 2000 device, v. Ardenne, Dresden, Germany). Analgosedation with Midazolam and Propofol. The chemotherapy was started at a body temperature of 41° C.

### **Patients**

20 women were treated. 18 had metastases in bones and other organs, 2 patients had only bone metastases. 11 patients had 1 or more previous palliative chemotherapies. All patients suffered from pain, 6 patients had a pain related significant loss of mobility and pathologic fractures. In 10 patients (1998 – 2001) we used as chemotherapy 5FU (450 mg/m<sup>2</sup> d1 – 3, 8, 15), Mitomycin (12 mg/m<sup>2</sup> d1) and Epirubicin (18 mg/m<sup>2</sup> d1, 8). In 20 patients (2002 – 2003) we used Vinorelbine (25 mg/m<sup>2</sup> d1 + 8) and Mitomycin (8 mg/m<sup>2</sup> d1). WBH was performed in each schedule on d1.

### **Results**

In 18/20 women pain reduction was achieved after the first cycle of treatment. In one case relief of pain occurred temporary in spite of tumor progression. 5/6 patients with crippling disease could regain mobility again. The rates of disease control were not influenced by the number of previous treatments or by the type of chemotherapy, they were PR + SD 80%, PD 20%. There were no significant side effects of chemotherapy. The WBH treatment was well tolerated, in 83 WBH sessions 2 cases of small burns in the buttock region and 1 dysaesthesia after compression of the ulnaris nerve occurred.

### **Conclusion**

The combination of WBH with chemotherapy in patients with breast cancer with painful bone metastases shows high rates of benefit and tumor control. A quick reduction of pain and a regain of mobility can be expected. There are no significant side effects. Compared to studies with chemotherapy alone the introduction of WBH seems to make palliative treatment more efficient.