

## COMBINATION OF HYPERTHERMIA AND RADIOTHERAPY AS THE TREATMENT OF SUPERFICIAL MALIGNANT MELANOMA METASTASES

<sup>1</sup>Miszczyk Leszek, <sup>1</sup>Jochymek Bożena, <sup>1</sup>Owczarek Grzegorz, <sup>1</sup>Mista Wioletta, <sup>2</sup>Cezary Juda

<sup>1</sup>Radiotherapy Department, Center of Oncology, M. Skłodowska-Curie m. Institute, branch Gliwice, Poland

<sup>2</sup> Chemotherapy Department, Lowersilesian Center of Cell Transplantation, Wrocław, Poland

**Purpose:** The aim of this study is an evaluation of an effectiveness and toxicity of radiotherapy and hiperthermia combination for superficial malignant melanoma (MM) metastases on a base of the retrospective material.

**Material:** The material is comprised of 37 cases of superficial MM metastases (14 W, 23 M). Mean of patients age was 63 years. In 18 cases PS of patients was Zubrod 0, in 15 – Zubrod 1 and in 4 - Zubrod 2. In 33 cases the primary MM was located on skin, in 2 in eye and in 2 cases the primary site remained unknown. In 21 cases lymph nodes and in 16 cases skin metastases were treated. In 14 cases tumors located on thorax and in axillas, in 10 on neck and in supraclavicular region, in 7 on abdomen and in inguinal region and in 6 on extremities were treated. Tumors sizes varied from 0.5 cm to 10 cm (mean 3.5). All patients were unsuitable for surgery or refused operation.

**Method:** Patients were treated with three 9 Gy radiotherapy fractions followed by three 60 min. hyperthermia sessions (43°C). Treatment was completed within 8 days. Patients were examined in the day of treatment end, 2 and 6 weeks later and next every three months. The regression of tumor size and skin reaction in 6 degrees scale (1- delicate erythema, 2 – intensive erythema, 3 – blisters, 4 – brown skin, 5 – necrosis, 6 – teleangiectasies) were evaluated.

**Results:** The number of controlled patients decreased rapidly during the follow up period because of natural history of disseminated MM. The percentage regressions of treated tumors were 12.5% - 2 weeks after the treatment, 31.2% - 4 weeks later and 23.3% - 4.5 months after the treatment. After this time tumors started to regrow, so progression was noted during next controls. Means of tumors sizes 0.5, 1.5, 4.5, 7.5, and 10.5 months after treatment completion were 2.7 cm, 2.7 cm, 2.4 cm, 3.5 cm and 4.8 cm respectively. Number of patients with following degrees of skin reaction during follow up is presented in Table I

Degree of skin reaction	Time after the treatment (months)					
	Treatment end	0.5	1.5	4.5	7.5	10.5
1	12	5	1		1	
2	4	2	3	2		
3	1	3	3			
4	1	3	1	1		
5	1	4	1			1
6					1	1

**Conclusion:** Combination of hyperthermia and radiotherapy could be a valuable and safe option of the palliative treatment for patients suffering from superficial inoperable MM metastases.