HYPERBARIC OXYGEN THERAPY ASSESSMENT IN CASE OF HEMORRHAGIC CYSTITIS AFTER RADIOTHERAPY

W. Polom¹, A.Klejnotowska¹, M. Matuszewski¹, Z. Sicko², M. Markuszewski¹, J. Brenner¹, K. Krajka¹.

¹Department of Urology, Medical University of Gdansk, Gdańsk, Poland ²Department of Hyperbaric Medicine and Sea Rescue - University Centre for Maritime and Tropical Medicine in Gdynia, National Centre for Hyperbaric Medicine, Gdynia, Poland

Introduction: We present the effect of hyperbaric therapy after radiotherapy because of cancer in the pelvic cavity resulting in hematuria. Increased pressure of oxygen in tissues favors the formation of new blood vessels in areas of ischemic tissues and increases the secretion of collagen.

Material and methods: Retrospectively, 11 cases of patients who, in the period from October 2006 to December 2010 were treated with hyperbaric oxygen because of leading to persistently recurrent hematuria. In the group of patients there were 7 men and 3 women. The total radiation dose to the patient in case of radiotherapy was 4500 - 5000 cGy, in the case of brachytherapy has been used 137 Cs and total dose was 3000 cGy. Patients in one treatment breathed 100% oxygen at a pressure of 2.5 atm / HBO2 /, for one course for 60 HBO2 treatments.

Results: Of all patients, the group effect of total or partial was observed in 6 patients. In one case, treatment was discontinued due to the increasing hematuria and suspected bladder tumor recurrence, while in three cases the treatment did not produce the desired result.

Conclusions: Treatment of the hemorrhagic cystitis is a difficult therapeutic challenge to solve using a standard procedure. One possible method is to use hyperbaric oxygen therapy. In very difficult cases, hyperbaric treatment appears to be a good alternative to giving a chance of getting better in more than half of patients.