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Title

Assessment of the effectiveness of terahertz therapy in the rehabilitation of patients with joint fractures

Source

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Abstract

The object of the study was investigation of the influence of electromagnetic radiation of terahertz range at the frequencies of nitric oxide molecular spectrum (THz-NO therapy) on fracture healing in traumatic patients with joint fractures. The quantitative analysis of the X ray pattern allowed to reveal that the degree of elbow fracture healing in 18 patients (base group) treated with THz-NO therapy at the moment of finish of the treatment was higher in comparison to the 15 patients (comparison group), who had got standard the electrotherapy. The insufficiency of range of motion of the elbow joint of damaged extremity in the patients of base group was 1.37 times less as compared to the other group of patients . The frequency of presenting of edema of the soft tissues of the damaged joint in the patients of base group was 1.8 times less than in the reference group of patients. The frequency of manifestation of signs of posttraumatic neurodistrophy in the patients of base group was 2.4 times less than in the reference group of patients. Use of THz-NO therapy in complex rehabilitation of patients with olecranon fracture promoted to improve the dynamic of the X-ray pattern and clinical signs of fracture healing. (5 References).