

pain relief – 70%), five months later in 67% of cases (mean degree of pain relief – 90%), but in all cases some pain relief was noted. No correlation between treatment outcome and different biological and technical factors was found. No dose-response relationship was noted. Partial reossification was found in five cases six months after treatment.

Conclusion - Obtained results suggest that radiotherapy of vertebral hemangiomas is easy, effective analgetic treatment even when doses of 20-24 Gy are used and that anti-inflammatory effect of radiation plays the main role in this kind of treatment.

81. RADIOTHERAPY FOR PAINFUL SCALUPO-HUMERAL PERIAR- THRITIS

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Purpose: The aim of this study was to evaluate usefulness of radiotherapy as a treatment of painful scapulo-humeral periarthritis.

Material and methods: The material contains 15 patients (9 women and 6 men) suffered from painful scapulo-humeral periarthritis (SHP). Patients were treated using gamma ⁶⁰Co radiation using 1 Gy fractions to 6 Gy of total dose delivered in 8 days. In all cases conventional anti-inflammatory treatment was unsuccessful or impossible to deliver. The mean period with SHP symptoms was 26 months. The mean follow-up period was 24 weeks. The mean degree of pain relief and improvement of limb mobility was assessed after radiotherapy completion, 1, 7 weeks after treatment and during the last control.

Results: The mean degree of pain relief was respectively 36%, 71%, 88% and 90%. Significant improvement of limb mobility was noted in all cases.

Conclusion: Obtained results allow to form conclusion that anti-inflammatory radiotherapy is effective treatment modality of painful scapulo-humeral periarthritis.

82. IBU AND CT BASED CONFORMAL HDR BRACHYTHERAPY

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The aim of the study is to present advantages of IBU and CT based panning in conformal brachytherapy (BT).

Applicator localization and dose planning in modern BT can be achieved by an integrated BT Unit (IBU) and CT based planning. Due to on-line connection between the localizer and the planning system, the fluoroscopy images are imported directly for reconstruction purpose, resulting in dose distribution view in operating room after dose calculation. That enables - if necessary - optimisation of the dose distribution by optimisation of the implant geometry. Fluoroscopy images can be easily stored to database, and used for verification during next fractions. The disadvantage of IBU based planning is that there is no possibility to enter volumes of interest into treatment plan. The localization of the applicator during fluoroscopy is analysed mostly due to well seen bony structures.

In order to add information concerning also soft tissue during planning procedure, CT examination of patient with implaced applicator is performed followed by all volume of interest definition.

The dose distribution calculated on the base of IBU and CT images are comparable, however CT-based planning visualizes dose distribution in all selected volumes of interest (f.e. in critical organs, PTV etc). Verification of the applicator localization by IBU is an easy, reproducible method however the localization of the applicator in relation to surrounding tissues is possible only in CT-based option.

83. ASTROCYTOMA U CHOREGO Z WIELOLETNIM PRZEBIEGIEM BIAŁACZKI WŁOCHATOKOMÓR- KOWEJ

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