

A RADIOFREQUENCY HYPERTHERMIA WITH SIMULTANEOUS INTERSTITIAL HDR BRACHYTHERAPY IN ADVANCED CERVICAL CANCER: INTERIM ANALYSIS OF A RANDOMIZED TRIAL.

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Objectives

In cervical cancer the clinical benefit of hyperthermia combined with external beam radiation was demonstrated. Nevertheless, due to logistic and technical problems this treatment is rarely used. Hyperthermia used simultaneously with brachytherapy is more convenient alternative, however its efficacy is unknown.

Material and methods.

From November 2006 to March 2007, 34 patients with advanced cervical cancer after standard chemoradiation were randomly allocated to either interstitial HDR brachytherapy given simultaneously with 500 kHz hyperthermia (N=17) or to the same brachytherapy alone (N=17). The total dose of 30 Gy was delivered in 7,5 Gy per fraction. In the hyperthermia group, the same applicators were used both for HDR brachytherapy, heating and temperature measurement. The sample size of 228 patients was calculated to detect 20% difference in local control.

Results.

Mild bleeding after needles removal was the only side effect which occurred 5 times in 2 patients in brachytherapy + hyperthermia group (5/68 procedures, 7%) in comparison with 4 times in 3 patients in brachytherapy alone group (4/68 procedures, 6%).

Conclusion

The study should be continued, as simultaneous brachytherapy and hyperthermia well tolerated and accrual is satisfactory.