

considering a similar biological pattern to radioinduced cystitis. 2 studies with these characteristics were found, showing that HA instillations are effective in radioinduced cystitis prevention.

Conclusions. Intravesical instillations of hyaluronic acid are effective in preventing radiation cystitis. It is safe and well tolerated. Given the scarcity reports on this subject, it is difficult to draw any firm conclusion about standard recommendations. A prospective randomized control study with a large number of patients is recommended.

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Different CTV on prostate brachytherapy. Comparative analysis

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Introduction. In 1999, American Brachytherapy Society (ABS) proposed prostate contour as clinical target volume (CTV) on prostate brachytherapy. Many authors still use this CTV. In 2007 ESTRO recommended two new CTV according to risk of extraprostatic extension (EPE): • CTV(ESTRO1) = prostate + 3 mm around. • CTV(ESTRO2) = prostate + 3 mm around excluding the rectal wall.

Purpose. 1. To demonstrate that CTV(ESTRO2) is the most appropriated to current knowledge on local development of prostate cancer. 2. It is possible to obtain fair seed distributions respecting doses to target and organs at risk.

Methods and materials. Ninety-eight patients with low-risk prostate cancer treated with 125I seeds (dose 145 Gy; CTV = prostate) were included. Average age was 68.79 years, mean PSA was 6.30 ng/ml. New CTV(ESTRO2) was defined for every patients and new planning was performed.

Results. Mean risk of EPE is 28.46% of which 15.93% are in the posterior direction. A CTV(ESTRO2) was planned for every case. The mean CTV doses: V 100: 95.74%, V150: 47.65%, D90: 160.22 Gy and organs at risk: Urethra D30: 190.70 Gy and D10: 203.21 Gy. Rectum D2cc: 96.74 Gy and D0.1cc: 183.50 Gy All of them got a theoretical distribution of seeds that provided a curative dose to this new CTV and respected the limiting dose for organs at risk. As expected, this extended CTV yield more dose to rectum but not exceeding limitations. Urethral doses were similar in both plans.

Conclusion. CTV(ABS) seems to be insufficient when risk of EPE is considered. CTV(ESTRO1) is excessive because the rectum, which in most instances is inside the 3 mm extension, is rarely involved by tumor. CTV(ESTRO2) seems to be suitable and it is possible to plan the CTV proposed and obtain fair dosimetric results for CTV and organs at risk.

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Dose rate and tumor regression in episcleral brachytherapy

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Introduction. The prognosis of conservative treatment in choroidal melanoma, is marked by a number of factors with varying degrees of significance. It has found as an independent prognostic factor in the rapid regression of tumor after brachytherapy. Dose rate is an important factor for the radiobiological viewpoint. The speed of early regression is indicative of metastasis.

Purpose. To correlate dose rate at the apex of tumor with speed of regression of the tumor height. To classify the treatments performed according to the dose rate used. To study the relationship between the dose rate and disease-free survival of patients treated with episcleral brachytherapy.

Method. Observational, retrospective and prospective study. Patients with uveal melanoma treated in our hospital by episcleral brachytherapy with I-125. Descriptive variables of prognostic value regarding tumor data, data with respect to the applicator, visual acuity both before treatment and in successive and scheduled revisions and survival data of patients and whether or not disease free.

Results. Positive correlation was found between the dose rate and the rate of regression of the maximum height of the tumor. However, the dose rate at the apex has no correlation with the change of size of the base nor changes in visual acuity. The dose rate in the organs at risk is not related to changes in visual acuity.

Conclusions. Dose rate at apex tumor influences rate of regression of tumor height. So, you might have to be a prognostic factor.

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