High-dose 3D-CRT in the radical and postoperative setting for prostate cancer. Analysis of survival and late rectal and urinary toxicity

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ABSTRACT

Purpose. The aim of the study was to retrospectively compare outcome and complications of prostate cancer patients treated with a curative and postoperative intent using a pretreatment defined NCCN classification.

Material and methods. A total of 103 patients was treated curatively (RAD) and 94 postoperatively (POST-OP). The mean age was higher in the RAD group (72.6 years; range, 56.4-85.1) than in the POST-OP group (65.4 years; range, 43.9-77) (P<0.0001). According to the NCCN prognostic classification, 13 (12%) patients were at low risk, 48 (47%) at intermediate risk and 42 (41%) at high risk in the RAD group. In the POST-OP group, 13 (14%) patients were low risk, 37 (40%) at intermediate risk and 44 (46%) at high risk. Hormone therapy was used in 98 patients (95%) in the RAD group and 45 patients (47.8%) in the POST-OP group. Patients were treated with three-dimensional conformal radiotherapy. The prescription dose was 80 Gy in 2-Gy fractions in the RAD group and 70 Gy in 2-Gy fractions in the POST-OP.

Results. No biochemical, clinical relapse was found in low-risk patients in the RAD group and 1 relapse was found in the POST-OP group. The largest number of relapses occurred (39%) and (33%) in intermediate-high risk in RAD and POST-OP groups, respectively. In the cause-specific survival analysis, no significant differences were found in the high-risk group between RAD and POST-OP groups (P=0.9). In the analysis of 5-year biochemical relapse-free survival, no significant differences were found in the high-risk group between RAD and POST-OP groups (P=0.1020).

Conclusions. Radiotherapy in the RAD low-risk group was an excellent treatment. RAD and POST-OP radiotherapy were well tolerated with very low toxicity. The cause-specific survival at 5 years was 95% and 97% for the two treatment groups, RAD and POST-OP, respectively (logrank test, P=0.2908).

Key words: high risk, late toxicity, surgery, three-dimensional conformal radiotherapy.

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