Abstract

PURPOSE: Salvage radiotherapy (SRT) is applied routinely in patients with biochemical relapse after radical prostatectomy (RP). However, only ~30% of these patients achieve a durable response after 10 years. As a standard, 66 Gy are given, ideally with a PSA below 0.5 ng/ml. We tried to determine more precisely the optimal PSA for starting SRT.

MATERIAL AND METHODS: In 301 prostate cancer patients without hormonal treatment, we analysed the impact on the biochemical response (bNED) to SRT of two pre-SRT PSA levels, namely below or above the median of 0.28 ng/ml.

RESULTS: The median follow-up time for the entire group was 30 months. In 151 patients, SRT commenced at a PSA ≤ 0.28 ng/ml, in 150 at > 0.28 ng/ml. Eighty-two patients (27%) developed biochemical progression during follow up. The calculated two-year bNED was 74% for the entire group, 78% versus 61% for a PSA ≤ or > 0.28 ng/ml, respectively. In multivariate analysis, pT(3b), resection status, pre-SRT PSA dichotomized at median, PSA post-SRT undetectable, and PSA doubling time were statistically significant independent predictors of progression after SRT.

CONCLUSIONS: Our findings suggest that a PSA of ≤ 0.28 ng/ml improves bNED compared with a PSA before SRT of > 0.28 ng/ml.

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