Early Post-Operative Radiotherapy is Associated with Worse Functional Outcomes in Prostate Cancer Patients.


Abstract

PURPOSE: The role of the time between radical prostatectomy (RP) and radiation therapy (RT) on postoperative functional outcomes is still unclear in surgically-managed prostate cancer (PCa) patients. We hypothesized that a shorter time interval between RP and RT might be associated with worse functional recovery rates after RP.

MATERIALS AND METHODS: We retrospectively evaluated 2,190 patients treated with RP. Patients were stratified according to RT schedule (adjuvant RT, salvage RT, no RT). We examined erectile function (EF) and urinary function (UC) recovery rates according to adjuvant RT (aRT), salvage RT (sRT) and no RT and according to time from surgery to RT. Cox regression analyses evaluated the impact of these predictors on functional outcomes.

RESULTS: Median follow-up was 48 months. The 3-year EF recovery rates were 35.0, 29.0 and 11.6% in patients who received no RT, sRT and aRT, respectively (p<0.001), and significantly differed according to the time to RT (11.7% vs. 34.7% for time to RT <1 year vs. ≥1 year, respectively; p<0.001). The 3-year UC recovery rates were 70.7, 59.0 and 42.2% in patients who received no RT, sRT and aRT, respectively (p<0.001), and differed according to the time to RT (43.5% vs. 62.7% for time to RT <1 year vs. ≥1 year, respectively; p<0.001). Cox regression analyses confirmed the negative impact of early RT on EF and UC recovery rates.

CONCLUSIONS: The time from RP to RT has an important role in EF and UC recovery. Delayed RT should be preferred to improve functional outcomes after surgery.

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KEYWORDS: Prostatic Neoplasms; erectile dysfunction; prostatectomy; radiotherapy; urinary incontinence

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