

Initial Outcomes of Early-Stage Prostate Cancer Treated with SBRT from the RSSearch™ Patient Registry

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Objectives: To report on initial outcomes of a multi-center, ongoing patient registry of stereotactic body radiotherapy (SBRT) treatment for early-stage prostate cancer.

Methods: The RSSearch Patient Registry is an international patient registry dedicated to the prospective collection of data from patients treated with SBRT. Between March 2006 and May 2013, 464 patients with prostate cancer were treated with SBRT and enrolled in RSSearch. Median PSA was 5.9 ng/ml (0.07 – 44 ng/ml). Two hundred and five patients were low-risk (PSA \leq 10 ng/ml and Gleason $<$ 7), 207 were intermediate-risk (PSA 10-20 ng/ml or Gleason = 7) and 52 patients were high-risk (PSA $>$ 20 ng/ml or Gleason $>$ 7). The median SBRT dose was 36.25 Gy (range 19 – 38 Gy) delivered in a median number of 5 fractions (range 2-5).

Results: The median follow-up was 13 months (range 2-73 months). Median PSA decreased from a baseline value of 5.9 ng/ml to 1 ng/ml at 1 year and 0.53 ng/ml at 2 years. Biochemical disease-free survival (bDFS) using nadir + 2 definition at 2 years was 100%, 93% and 93% for low-, intermediate- and high-risk, respectively. At 3 years, bDFS was 100%, 84% and 67% for low-, intermediate- and high-risk disease, respectively.

Conclusions: Patient registries can be valuable tools to track patient demographics, treatment management practices and clinical outcomes, such as prostate SBRT, and reflect practices in a real world setting. The initial results from RSSearch indicate that participating centers are adhering to published treatment guidelines for prostate SBRT treatments and clinical outcomes are favorable. While the median follow-up is short, as the database continues to mature, analyses on prostate cancer in this dataset will be more robust for future studies to assess toxicity and long term outcomes.

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