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Predictors of improved biochemical progression free survival for salvage prostate bed radiotherapy after radical prostatectomy.

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Abstract Disclosures

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Background:

About a third of patients undergoing radical prostatectomy (RP) develop biochemical recurrence, the rate of which increases to ~50% in high risk patients, with adverse features such as positive margins & seminal vesicle invasion. Postop salvage radiotherapy (SRT) to the prostate bed improves biochemical progression free survival (bPFS). We sought to evaluate the benefit of SRT and predictors of bPFS.

Methods:

Patients who received SRT from Jan11 to Dec15 were retrospectively analysed. All patients had prostate bed radiotherapy (66Gy/33#/6.5wks). Hormone therapy (HT), when used was for a short duration of 3-6 months. PSA relapse after SRT was defined as serum PSA rising above the posttreatment nadir to a level of ≥0.2 ng/mL or by the initiation of HT after completion of SRT. The bPFS was calculated as the time from start of SRT till date of undetectable PSA, analysed by Kaplan-Meier estimates and log-rank test.

Results:

Overall, 111 patients were analysed. Median follow-up was 46 (range; 6-80) months. 46% (51/111) patients received HT. The median pre-SRT PSA was 0.4 ng/mL (range, 0.07 to 4.9). The bPFS rate was 60.4% overall, 65% for those with a pre-SRT PSA (ng/mL) level of \leq 0.5 (n = 74), 53.6% for those with a PSA of > 0.5 to \leq 1.5 (n = 28), 44.4% for those with a PSA of > 1.5 (n = 9); (p = 0.33). There was no significant difference in bPFS rates for pre-SRT PSA of \leq 0.2 compared to PSA \leq 0.5. Significantly improved bPFS rates were seen with an interval of > 6m from detectable PSA to start of SRT (69% vs. 46.5%: p = 0.026), and a trend towards better bPFS rates when the time interval was > 24m from RP to first detectable PSA (73% vs. 53%: p = 0.08). However, bPFS was similar in the proportion of patients (46%) who had HT compared to those (54%) who did not have HT.

Conclusions:

We have shown that there was no significant difference in bPFS rates between early (detectable PSA at 0.2) and deferred SRT and our data supports the practice of deferred SRT prior to PSA going above 0.5. Short course of HT was not shown to improve bPFS. The ongoing RADICALS and RAVE trials will further clarify these aspects.

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