

"The PSA Nadir Goal for Radiotherapy of Prostate Cancer is 0.2 NG/ML"

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INTRODUCTION AND OBJECTIVES: We previously determined that 0.5 ng/ml was the goal for radiotherapy of prostate cancer and now re-evaluate our database.

METHODS: From 1984-1994, 572 men with stage T1T2NO prostate cancer were treated by simultaneous radiation: radioactive I-125 prostate implant followed by external-beam radiotherapy. The median pre-treatment PSA was 7.9 ng/ml (range, 0.3-188 ng/ml). the median follow-up is 4.5 years (minimum 3 years; range 3-13 years). Treatment failure is defined by the American Society of Therapeutic Radiation Oncology (ASTRO) Committee definition of 3 consecutive increases in PSA above whatever nadir was achieved.

RESULTS OBTAINED: The ten year disease-free survival rate for 371 (65%) men who achieved nadir 0.2 ng/ml is 88%, significantly better ($p=0.0001$) than the 56% ten year disease-free survival rate for 76 (13%) men who nadired 0.3-0.5 ng/ml. The 125 (22%) men who nadired >0.5 ng/ml have a 9% seven year disease-free survival rate. Of 306 men with minimum 5 year follow-up (range, 5-13 years), 211 are disease-free. PSA nadir 0.5 ng/ml was achieved by 99.5% (210/211) of these disease-free men, and 87% (184/211) nadired at 0.2 ng/ml.

CONCLUSIONS: With rare exceptions, only men who achieve and maintain a PSA nadir of 0.5 ng/ml will be cured of prostate cancer by irradiation. however, the prognostic value of nadir 0.5 ng/ml is contingent upon most men achieving nadir 0.2 ng/ml, which is the goal for irradiation of prostate cancer. Whether or not radiotherapy cures prostate cancer can be precisely and realistically evaluated with this information.