

"Prostate Cancer in African-American Men Treated by Simultaneous Radiotherapy"

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African-American men (AAM) with early stage prostate cancer present with a higher PSA and have a reported worse prognosis than do white men (WM). The disease-free survival rate, according to race, is evaluated in this report with disease freedom defined by an undetectable PSA. From 1993-1997, 1005 men with clinical stage T1T2NO prostate cancer were treated by simultaneous radiation consisting of an ultrasound-guided I-125 transperineal prostate and seminal vesicle implant (median dose 12,000 cGy) followed by external-beam radiation (4500 cGy) including an additional 750 cGy seminal vesicle boost in high-risk men. None received hormones prior to recurrence. The median pretreatment PSA for 102 AAM and 903 WM was 8.6 ng/ml and 7.1 ng/ml respectively, a significant difference ($p=0.0002$). The median follow up is 24 months (range, 12-66 months). Disease-freedom is defined as men who achieve and maintain PSA nadir 0.5 ng/ml. The overall five year disease-free survival rates for AAM and WM is 83% and 92% respectively, ($p=0.04$). However, according to pretreatment PSA groups of 4.0 ng/ml, 4.1-10.0 ng/ml, 10.1-20.0 ng/ml and >20.0 ng/ml, the five year disease free survival rates for AAM and WM are 100% and 98%, 93% and 95%, 62% and 81%, 84% and 84%, respectively, and no significant difference is observed within the above PSA groups. With disease-free survival as an endpoint, race is not a significant factor on multivariate analysis. Based upon pretreatment PSA, AAM present with more extensive disease than WM. However no significant difference in disease-free survival is noted between AAM and WM after treatment by simultaneous radiotherapy when results are analyzed according to PSA group.

METHODS: From 1992 - 1997, 1011 consecutive men with clinical stage T1-T2NxM0 prostate cancer were treated by simultaneous irradiation: transperineal I-125 prostate seed implant followed by external beam irradiation. None received neoadjuvant hormones. Of this total, 149 recurred and are the subject of this report. The median pretreatment prostate specific antigen (PSA) was 10.3 ng/ml (range, 0.9 -88 ng/ml), 52% (77) had biopsy Gleason score 7 and 41% (61) had clinical stage T2b,T2c. Recurrence is defined by failure to achieve PSA nadir 0.2 ng/ml or a subsequent rise above this level. Dated from the time of recurrence, the median followup is 3 years (range, 0-8 years).