

"Cigarette Smoking Does Not Affect Treatment Results of Simultaneous Irradiation For Prostate Cancer"

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INTRODUCTION AND OBJECTIVES: A prior report suggested that cigarette smoking is associated with more aggressive prostate cancer, especially in younger men. Whether cigarette smoking impacts prostate cancer disease free survival (DFS) rates after a brachytherapy program is evaluated in this report.

METHODS: From 1992 to 1999, 2,129 men with stage T1-T2 NxMo prostate cancer who did not receive neoadjuvant hormones were treated by simultaneous irradiation: transperineal I-125 prostate seed implant followed by external beam irradiation. Of this total, 1,529 men at initial consultation answered a questionnaire regarding onset of smoking, average packs per day, time of stop smoking or still smoking. According to pack-year history, the median pretreatment PSA was 6.6ng/ml (0.2-51), 6.3 ng/ml (0.8-48) and 6.9 ng/ml (0.3-60) for men who never smoked (583), men who had 30 pack-year history (391) and men (555) with a 31 pack-year history. Disease freedom is defined by PSA cutpoint 0.2ng/ml. Log rank testing was used to compare disease DFS estimates by the Kaplan-Meier method. Median followup is four years (3-10).

RESULTS OBTAINED: According to pack-year history, the five-year DFS rate was 92%, 91% and 88%, which is not significant ($p=0.38$) for men with a pack-year history of never smoked, 30 and 31, respectively. The five-year DFS rate for 430 men aged 60 at implant was 95%, 93% and 90% ($p=0.36$) for men with a pack-year history of none (180), 30 (128) and 31 (122), respectively. The five-year rate for 1,099 men aged 61 was 91%, 90% and 88% ($p=0.7$), for men with a pack-year history of none (406), 30 (263) and 31 (433), respectively. Men with a smoking history were divided according to stopped smoking and still smoke and there was no significant difference in disease free survival by age 60 ($p=0.9$) or >60 ($p=0.2$).

CONCLUSION: Cigarette smoking has not impact on DFS rates after brachytherapy for prostate cancer, even in younger men.