

Potency Preservation after Prostate Brachytherapy

Michael A. Stutz MD, Michelle H. Gurel, BS and Brian J. Moran, MD

Chicago Prostate Cancer Center, Westmont, IL USA

*Presented at American Society for Therapeutic Radiology and Oncology (ASTRO),
October 2003, Salt Lake City, UT*

PURPOSE: To assess erectile dysfunction (ED) related to permanent prostate brachytherapy (PB) using the Sexual Health Inventory (SHI), a validated five question, 25-point scale self report instrument.

METHODS AND MATERIALS: One hundred forty-eight patients who underwent PB as monotherapy met the following criteria: minimum follow-up of 2 years, potent pretreatment as defined by a completed preimplant SHI and age less than 75. In June 2002, a follow-up SHI was mailed and returned by 106/148 (72%) patients. Mean follow-up time for the 106 patients was 32 ± 4.5 mos (range 26-55 mos). All were stage T1/T2 with a median Gleason Grade of 6 and mean pretreatment PSA of 7.8 ± 4.2 ng/ml. Mean patient age was 65 ± 7.2 yrs (range 43-75 yrs). Mean prostate volume was 36.7 ± 11.4 cm³; 71% received ¹²⁵Iodine and 29% received ¹⁰³Pd implant. Potency was defined as having a score of 8 or above on a completed SHI. SHI scores <7, 8-11, 12-16, 17-21 and 22-25 indicate severe ED, moderate ED, mild to moderate ED, mild ED and no ED, respectively. The clinical parameters evaluated for impact on postimplant SHI score included: age, follow-up time, Gleason Grade, PSA, prostate volume, isotope, hypertension, diabetes mellitus, smoking history and preimplant SHI score.

RESULTS: The mean pretreatment SHI score of this cohort was 19.92 ± 4.9 and the mean posttreatment SHI score was 12.7 ± 7.5 . In multivariate analysis, age>65 (p=.008), presence of diabetes (p=.040) and preimplant SHI score <19 (p=.032) were found to have a statistically significant negative impact on postimplant SHI score. The accompanying graph displays postimplant ED groupings as related to patient's preimplant status.

CONCLUSIONS: With a minimum follow-up of 2 years, 69% of patients who received PB monotherapy retained potency. Most patients did, however, report some decline in their SHI scores. Patients who were younger, had no history of diabetes, and had higher pre-implant potency/ SHI scores were most likely to retain potency.

Sexual Health Inventory Results

