Nursing Assessment of Sexual Function Following Permanent Prostate Brachytherapy for Patients With Early-Stage Prostate Cancer

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Erectile dysfunction (ED) affects as many as 30 million American men at any given time (National Institutes of Health [NIH] Consensus Development Panel, 1993) and frequently is associated with potentially curative local treatments for prostate cancer (Merrick, Butler, Lief, & Galbreath, 2001a). Although the majority of the prostate brachytherapy literature reports biochemical results as favorable as the most promising radical prostatectomy and external beam radiation therapy series to date, no difference has been found in overall survival between the aforementioned treatment modalities (Merrick, Butler, Lief, & Dorsey, 2001; Merrick et al., 2001b). Because of the absence of a survival advantage, quality-of-life issues have assumed increased importance for both physicians and patients.

The NIH Consensus Development Panel (1993) defined ED as “the inability to attain or maintain penile erection sufficient for satisfactory sexual performance” (p. 83). ED results in a deleterious effect on quality of life, including physical and emotional well-being, marital discord, and loss of self-esteem (Burnett, 1998; Day, Ambegaonkar, Harriot, & McDaniel, 2001; Laumann, Paik, & Rosen, 1999; NIH Consensus Development Panel). Following permanent prostate brachytherapy using either palladium-103 (i.e., Pd103) or iodine-125 (i.e., 125I) with or without external beam radiation therapy, ED has resulted in 6%–61% of cases (Incrocci, Slob, & Levendag, 2002; Merrick, Butler, Galbreath, et al., 2002; Merrick et al., 2001a). The reported wide ranges of ED may be a result of differences in patient characteristics and follow-up and potentially may be distorted by the mode of data collection. Litwin, Lubeck, Henning, and Carroll (1998) suggested that “physician ratings of patient symptoms do not correlate well with patient self-assessment of quality of life” (p. 1988). Most brachytherapy studies evaluating ED have utilized physician interviews, whereas others did not provide a definition of ED or a description of the collection methods (Merrick, Butler, Galbreath, et al.). To date, only one study has utilized patient-administered questionnaires (Merrick, Butler, Galbreath, et al.). Self-reporting should be the preferred method of quality-of-life data collection because it provides the best estimate of highly subjective phenomenon, such as potency. When patient-administered questionnaires have been utilized after radical prostatectomy, potency rates as low as 7% have been reported (Talcott, Clark, Stark, Nadir, & Ragde, 1999).

Submitted October 2001. Accepted for publication December 21, 2001. (Mention of specific products and opinions related to those products do not indicate or imply endorsement by the Clinical Journal of Oncology Nursing or the Oncology Nursing Society.)

Digital Object Identifier: 10.1188/CJON.271-274

Assessment of sexual function following potentially curative local treatment for carcinoma of the prostate gland has resulted in wide ranges of potency preservation rates, which may be because of differences in the evaluated patient populations, mode of data collection, and length of patient follow-up. Quality-of-life data are most reliable when obtained by patient-administered and validated quality-of-life instruments. In the Schiffer Cancer Center’s prostate brachytherapy unit, healthcare professionals utilize the specific erectile questions of the International Index of Erectile Function to ascertain pre- and post-treatment erectile function. Documentation of sexual function following all local treatments, including prostate brachytherapy, may help to clarify the etiology of treatment-induced erectile dysfunction (ED), improve treatment for ED, and, ultimately, improve quality-of-life outcomes. Fortunately, the majority of patients with brachytherapy-induced ED respond favorably to sildenafil citrate.