Sexual Bother in Men with Advanced Prostate Cancer Undergoing Androgen Deprivation Therapy

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ABSTRACT

Introduction. Men with advanced prostate cancer (APC) undergoing androgen deprivation therapy (ADT) often experience distressing sexual side effects. Sexual bother is an important component of adjustment. Factors associated with increased bother are not well understood.

Aims. This study sought to describe sexual dysfunction and bother in APC patients undergoing ADT, identify socio-demographic and health/disease-related characteristics related to sexual bother, and evaluate associations between sexual bother and psychosocial well-being and quality of life (QOL).

Methods. Baseline data of a larger psychosocial intervention study was used. Pearson's correlation and independent samples *t*-test tested bivariate relations. Multivariate regression analysis evaluated relations between sexual bother and psychosocial and QOL outcomes.

Main Outcome Measures. The Expanded Prostate Cancer Index Composite sexual function and bother subscales, Center for Epidemiologic Studies Depression Scale, Functional Assessment of Cancer Therapy—General, and Dyadic Adjustment Scale were the main outcome measures.

Results. Participants (N = 80) were 70 years old (standard deviation [SD] = 9.6) and reported 18.7 months (SD = 17.3) of ADT. Sexual dysfunction (mean = 10.1; SD = 18.0) was highly prevalent. Greater sexual bother (lower scores) was related to younger age ($\beta = 0.25$, $P = 0.03$) and fewer months of ADT ($\beta = 0.22$, $P = 0.05$). Controlling for age, months of ADT, current and precancer sexual function, sexual bother correlated with more depressive symptoms ($\beta = -0.24$, $P = 0.06$) and lower QOL ($\beta = 0.25$, $P = 0.05$). Contrary to hypotheses, greater sexual bother was related to greater dyadic satisfaction ($\beta = -0.35$, $P = 0.03$) and cohesion ($\beta = -0.42$, $P = 0.01$).

Conclusions. The majority of APC patients undergoing ADT will experience sexual dysfunction, but there is variability in their degree of sexual bother. Psychosocial aspects of sexual functioning should be considered when evaluating men's adjustment to ADT effects. Assessment of sexual bother may help identify men at risk for more general distress and lowered QOL. Psychosocial interventions targeting sexual bother may complement medical treatments for sexual dysfunction and be clinically relevant, particularly for younger men and those first starting ADT. **Benedict C, Traeger L, Dahn JR, Antoni M, Zhou ES, Bustillo N, and Penedo FJ. Sexual bother in men with advanced prostate cancer undergoing androgen deprivation therapy. J Sex Med 2014;11:2571–2580.**

Key Words. Prostate Cancer; Androgen Deprivation; Androgen Ablation; Hormone Therapy; Sexual Function; Sexual Dysfunction; Sexual Bother; Erectile Dysfunction; Depressive Symptoms; Relationship Functioning; Quality of Life

Introduction

The use of androgen deprivation therapy (ADT) is an established standard of care for prostate cancer and is increasingly used to treat nonmetastatic and recurrent disease (biochemical relapse), and in a multimodal treatment approach [1–4]. Men diagnosed with advanced prostate cancer (APC) typically receive ADT as a first line of treatment [5,6]. In this context, ADT is administered to delay disease progression with extended survival time and quality of life (QOL) considerations as primary end points [2]. Although effective for delaying disease progression, ADT often causes significant side effects that can negatively impact QOL [7,8]. Sexual side effects have been shown to be particularly distressing and may further impact psychosocial well-being and QOL, above and beyond other disease- and treatment-related effects [6,7].

The importance of sexual functioning is often not fully appreciated within the context of advanced cancer, and the psychosexual needs of patients may be overlooked, particularly among older adults [9–11]. Interest and desire to engage in sexual activity do not necessarily lessen with age or declining physical health [12], even in the face of medical illness and disability [13]. Although men with APC undergoing ADT may face a number of challenges (e.g., role changes, uncertainty/fear of disease progression), sexuality is an important aspect of health and well-being for men and their partners [14–16].

Despite literature highlighting the importance of sexuality in older adults, it is unclear whether men with APC are bothered by sexual side effects. ADT-related sexual changes may include erectile dysfunction, loss of libido, altered orgasm experience, genital atrophy/shrinkage, and bodily feminization [17–19]. For men who experienced impairments from primary treatment (radical prostatectomy or radiation therapy), ADT typically worsens symptoms and exacerbates sexual difficulties [20]. Despite these significant physiologic changes, there may be variability in the degree to which men are bothered by ADT sexual side effects [21]. Although most research has been in localized prostate cancer, findings suggest sexual bother may be largely independent of sexual function and uniquely related to QOL outcomes [21–24]. Changes in sexual function occur within the context of other psychosocial and situational factors related to sexuality (e.g., expectations for sexual performance, perceptions of diminished masculinity, having an available partner, and partners' sexual function and interest [18,25,26]). As such, men with the same level of impairment may be more or less bothered or distressed. Given that assessment of sexual function will likely lead to floor effects in this patient population, sexual bother may be a more meaningful and robust indicator of how sexual side effects affect well-being.

For men who are significantly bothered by sexual changes as a result of treatment, distress may generalize to other domains of psychosocial function and QOL. Among APC patients undergoing ADT, lowered sexual function (e.g., erectile dysfunction, loss of libido) has been related to increased distress, worse QOL, and disruption to couples' relationship functioning [6,20]. We sought to describe sexual dysfunction (i.e., symptom severity) and sexual bother (i.e., distress related to symptoms), identify socio-demographic and health/disease-related characteristics related to sexual bother, and evaluate whether greater sexual bother is independently related to greater depressive symptoms, lowered QOL, and worse relationship functioning.

Methods

Participants were part of a larger National Cancer Institute-funded randomized controlled trial of a 10-week, group-based psychosocial intervention for APC patients designed to improve coping and QOL [27]. Recruitment was done through referrals from urology clinics, community presentations, and through the Florida Cancer Data System. Eligibility criteria included stage III or IV APC diagnosis and ADT side effects experienced in the past 12 months. All participants were on luteinizing hormone-releasing hormone agonists and men were eligible to participate if they were on intermittent or continuous ADT; if they were receiving concomitant external beam radiation therapy (EBRT); and if they had new advanced disease or a recurrence with advanced disease. Men were also required to be age 50 years or older, fluent in English, have at least a ninth grade-level education, and with no history of severe psychiatric pathology in the past 3 months or prior cancer history other than prostate cancer. A score of at least 26 on the Mini Mental State Examination was used to rule out cognitive impairment and ensure understanding of study materials [28]. The Structured Clinical Diagnostic Interview for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition was used to exclude individuals with a history of or current psychosis, current substance use/dependence disorders, organic mental