ERECTILE DYSFUNCTION

Erectile Function Predicts Sexual Satisfaction in Men With Spinal Cord Injury

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ABSTRACT

Introduction: Spinal cord injury (SCI) is usually a sudden traumatic event and has a negative effect on sexual function.

Aim: To evaluate the characteristics of sexual activity in men with SCI and identify predictors of being sexually active and having a satisfactory sex life.

Methods: We assessed sexual activity profiles of men with SCI from a Brazilian tertiary rehabilitation center from February to August 2012. All patients older than 18 years with SCI for longer than 1 year were invited to participate. We analyzed age, time since SCI, patient age at SCI, employment status, partner status, completeness of lesion, functional independence, urinary continence, and Sexual Health Inventory for Men (SHIM) score.

Main Outcome Measures: The SHIM was used to assess erectile function (EF). Satisfaction with sex life was analyzed as a dichotomous variable. Predictors of an active and satisfactory sex life were identified using univariable and multivariable analyses.

Results: We evaluated 295 men with mean age of 40.7 ± 14.5 years. Most patients had a complete SCI (65.1%) and 159 (53.9%) were incontinent. The median SHIM score was 5 (interquartile range = 0–16) and only 71 men (24.1%) had a SHIM score of at least 17. Of these men, 159 (53.9%) were sexually active. Only 63 men (39.6%) were satisfied with their sex life after SCI. In univariable analysis, all variables were associated with an active sex life. Those with a SHIM score of at least 17 had a greater likelihood of being sexually active (odds ratio = 116, 95% confidence interval = 14–432). EF was the only parameter associated with a satisfactory sex life (odds ratio = 1.3, 95% confidence interval = 1.2–1.4).

Conclusions: Most men with SCI were sexually inactive and/or dissatisfied with their sex life. Age, duration of SCI, completeness of SCI, continence, having a partner, and good EF were identified as predictors of an active sex life. However, only EF was a predictor of a satisfactory sex life. **Gomes CM, Miranda EP, de Bessa J, et al. Erectile Function Predicts Sexual Satisfaction in Men With Spinal Cord Injury. Sex Med 2017;5:e148–e155.**

Key Words: Spinal Cord Injury; Erectile Dysfunction; Sexual Behavior; Quality of Life; Epidemiology; Urinary Bladder Neurogenic

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INTRODUCTION

Spinal cord injury (SCI) has a known negative effect on quality of life. It might have a specific detrimental effect on male sexual function by affecting patients' quality of life and interpersonal relationships.[1,2] Studies have shown that sexuality is a key motivating factor in the lives of men with SCI.[3–5] Among the priorities of rehabilitation in men with SCI, sexual recovery was considered the most important aspiration for paraplegic men, followed by overcoming the desire for lower limb motor recovery and recovery of bladder function.[6] For tetraplegic subjects, sexual rehabilitation was considered less important than recovery of upper limb function.[6]

It is estimated that 35% to 80% of men become sexually inactive after SCI.[7,8] Erectile function and the ability to achieve orgasm and ejaculation are impaired in most men with SCI.[9–12] Satisfaction with sexual life also is decreased in most individuals.[7,9,13] Younger individuals[14] and those with longer time since SCI[15] seem to have a better chance of being sexually active. Factors such as level of injury and neurologic impairment[7] and urinary and fecal control[9,10] have been evaluated, with different results. Other studies have shown that complications of SCI such as pressure ulcers, spasticity, and pain and factors related to a patient's self-esteem also might decrease sexual activity.[16,17]

Although previous studies have reported the association between sexuality and quality of life in men with SCI,[18,19] satisfaction with sex life in that population has been poorly evaluated.[19] We believe it would be helpful for clinicians to understand what the major factors are for recovery of sexual satisfaction in this population. Previous studies have shown that the characteristics of the relationship with the partner, the ability to move, and body image seem to play an important role in achieving a satisfactory sex life.[4,20] Urinary continence also has been considered important for sexual satisfaction in other series.[10,14,21] It is known that good erectile function is essential for sexual activity and body image and that it can be severely impaired in men with SCI. However, its importance among the various determinants of sexual activity in men with SCI has not been investigated. Moreover, studies evaluating erectile function of men with SCI have not systematically used validated instruments such as the International Index for Erectile Function or the Sexual Health Inventory for Men (SHIM).[22] In this study we evaluated sociodemographic aspects and sex life characteristics of men with SCI, with special focus on erectile function, to identify predictors of satisfaction with sex life.

METHODS

Patient Population

In this cross-sectional study, we assessed the sexual function of consecutive men with SCI from a tertiary rehabilitation center from February to August 2012. All patients older than 18 years of age with SCI for more than 1 year who presented for a routine medical visit were invited to participate. The only exclusion criterion was the presence of associated traumatic brain injury with confirmed cognitive impairment. We evaluated clinical and demographic data such as age, SCI duration, SCI level, and completeness of SCI based on the American Spinal Injury Association Impairment Scale,[23] urinary continence, bladder management methods, and functional independence.

Urinary continence was defined as the absence of urinary leaks and no use of pads or diapers in the past 30 days. The bladder-emptying methods included spontaneous micturition, with or without stimulation maneuvers, clean intermittent catheterization, or use of an indwelling urethral or suprapubic catheter. Patients using a condom catheter who did not perform intermittent catheterization were included among those with spontaneous micturition.

Sample Size Calculation

Before conducting our sample size calculation, we considered a power of 80%, a precision of 5%, and a confidence interval (CI) of 95%. Assuming that the approximate prevalence of an active sex life in men with SCI was 25%, a minimum of 250 individuals would be required. To explore possible predictors of sexual satisfaction with a two-sided significance level of 5%, we aimed at recruiting 300 patients, which represent 20% more than initially calculated. Consecutive eligible participants were invited to participate in the study during their routine follow-up appointments. Of the invited patients, only three did not agree to participate and two were ineligible because they had cognitive deficits secondary to traumatic brain injury. In total, we gathered 295 subjects, resulting in an acceptance rate of 99.0%.

Questionnaire Assessment

A trained research assistant interviewed participants alone without the presence of the partner. This setup was chosen because many patients lacked manual dexterity owing to the SCI and to avoid partner interference on patients' scoring. All patients completed the Functional Independence Measure (FIM) questionnaire, which assesses self-care components (food, personal hygiene, bathing, dressing, and using the toilet), sphincter control (urinary function and defecation), mobility (transfers to bed, toilet, bathroom, and wheelchair, mobility chair wheels, or walking), communication (including comprehension and expression), and social cognition (social interaction, problem solving, and memory). Each item is scored on a seven-point Likert scale, where 1 indicates total dependence and 7 indicates complete independence. The total FIM score ranges from 18 to 126.

Patients completed a structured questionnaire containing items about the frequency and modalities of sexual relations, ability to achieve orgasm and ejaculation, and use of phosphodiesterase type 5 (PDE-5) inhibitors. Those who reported not having any kind of sexual activity with a partner in the past 12 months were considered sexually inactive. We considered