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Impact of Overactive Bladder Syndrome on Female Sexual Function

Aşırı Aktif Mesane Sendromunun Kadın Cinsel Fonksiyonu Üzerine Etkileri

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ABSTRACT

The etiology of female sexual dysfunction includes psychological, physiological and iatrogenic causes. Physiological and iatrogenic causes are abdominal surgery, menopause, smoking, spinal cord injuries and some antipsychotic, antihypertensive, and antidepressant drugs. When assessing sexual function, sexual function questionnaires, such as the Female Sexual Function Index, and the Sexual Function Questionnaire are used. The prevalence of female sexual dysfunction is 43% and it has been reported to increase depending on menopause and age. Estrogen, estrogen + testosterone and tibolone, PDE5, apomorphine, bupropion and flibanserin are used in the treatment of female sexual dysfunction. Overactive bladder is a disease affecting the quality of life and is characterized by urgency, frequency, nocturia and urge incontinence with especially filling phase of the bladder resulting from loss of detrusor muscle inhibition. The prevalence of overactive bladder in women in the United States has been reported to be 16.9%. Lower urinary tract symptoms and overactive bladder syndrome are not known how to cause female sexual dysfunction. Menopause and partner status were the most important predictors for female sexual dysfunction. It has been reported that overactive bladder syndrome and urinary incontinence provide prediction of development of female sexual dysfunction. Shame, fear of incontinence, and urinary incontinence as well as urge sensation during sexual intercourse in individuals with overactive bladder syndrome have been reported to be the main factors causing female sexual dysfunction. Pathophysiological relationship between the two disorders has not been elucidated and further clinical and experimental studies are needed in this regard.

Keywords

Overactive bladder, female sexual dysfunction, lower urinary tract symptoms

ÖZ

Kadın cinsel fonksiyon bozukluğunun etiyolojisinde psikolojik, fizyolojik ve iyatrojenik nedenler yer alır. Abdominal cerrahi, menopoz, sigara, spinal kord yaralanmaları ve bazı antipsikotik, antihipertansif, antidepresan ilaçlar fizyolojik ve iyatrojenik nedenleri oluşturur. Cinsel işlev değerlendirilirken Kadın Seksüel Fonksiyon İndeksi Formu, Seksüel Fonksiyon Anketi Formu ve Kadın Cinsel Fonksiyon İndeksi Formu gibi seksüel fonksiyon formları kullanılmaktadır. Kadın cinsel fonksiyon bozukluğunun görülme sıklığı yaklaşık olarak %43 iken, menopoza ve yaşa bağlı olarak arttığı bildirilmiştir. Kadın cinsel fonksiyon bozukluğunun tedavisinde östrojen, östrojen + testosteron ve tibolon, PDE5, apomorfin, bupropion ve filbanserin kullanılmaktadır. Aşırı aktif mesane (AAM); sıkışma hissi, sık idrara gitme, noktüri ve sıkışma inkontinansı ile karakterize mesanenin özellikle dolum fazında detrüsör kasında inhibisyon kaybı gelişmesi sonucu oluşan hayat kalitesini ve komforunu önemli derecede etkileyen bir hastalıktır. Amerika Birleşik Devletleri'nde aşırı aktif mesane prevalansı kadınlarda %16,9 olarak bildirilmiştir. Alt üriner sistem semptomları ve AAM'nin, kadın cinsel fonksiyon bozukluğuna nasıl yol açtığı net olarak bilinmemektedir. Menopoz ve partner durumu kadın cinsel fonksiyon bozukluğu için en önemli belirleyiciler olarak saptanmıştır. Üriner inkontinansın ve AAM'nin, kadın cinsel fonksiyon bozukluğu gelişmesinde öngörü sağlayabileceği bildirilmiştir. Koitus esnasında AAM sendromu olanlarda utanma, idrar kaçırma korkusu, idrar kaçırma ve sıkışma hissinin cinsel fonksiyon bozukluğuna neden olan temel etkenler olduğu bildirilmiştir. İki hastalık arasındaki patofizyolojik ilişki tam aydınlatılamamıştır ve bu konuda daha fazla klinik ve deneysel çalışmaya ihtiyaç vardır.

Anahtar Kelimeler

Aşırı aktif mesane, kadın cinsel fonksiyon bozukluğu, alt üriner sistem semptomları

Introduction

Sexual health is a state of physical, mental and social well-being in relation to sexuality. Female sexual dysfunction has been classified under the headings sexual desire (hypoactive sexual desire, sexual aversion), arousal, orgasm, and pain (dyspareunia and vaginismus). Decreased sexual desire stems from conflict and disharmony between couples. Arousal disorder may result from lack of or diminished vaginal lubrication, clitoral and vaginal blood supply. Relationship problems between couples may be due to depression, drug use, chronic disease, estrogen deficiency and neurological diseases. Lack of orgasm after a normal state of arousal period is more often in young

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women who have just started having sexual relationship. Dyspareunia is a condition of pain during sexual intercourse without vaginismus (involuntary contractions of muscles located in the outer part of the vagina). Sexual anxiety is defined in the sense of feeling bad before or during sexual intercourse and has been reported to occur with overactivation of the autonomic nervous system (1,2).

The etiology of female sexual dysfunction includes psychological, physiological and iatrogenic causes. Physiological and iatrogenic causes are abdominal surgery, menopause, smoking, spinal cord injuries and use of some antipsychotic, antihypertensive, and antidepressants drugs. Physiological and iatrogenic factors cause female sexual dysfunction with effect of vaginal and clitoral hemodynamics, lubrication, pelvic and genital muscle activity, the innervation of the pelvic organs and neurogenic system. Psychological causes include anxiety, depression, negative body perceptions, physical and/or emotional abuse (3,4).

Sexual function questionnaires are used for assessing sexual function. The most frequently used ones are the Female Sexual Function Index (FSFI) and Sexual Function Questionnaire (SFQ) and. The prevalence of female sexual dysfunction is estimated to be 43% and it has been reported to increase with menopause and age (1). The prevalence of female sexual dysfunction in our country has been reported to be 48% (5). Estrogen, estrogen + testosterone and tibolone, PDE5 as the vasoactive agent, apomorphine, bupropion and flibanserin in PGE1 group are used in the treatment of female sexual dysfunction (1).

Overactive bladder is a disease affecting the quality of life and it is characterized by urgency, frequency, nocturia and urge incontinence with especially filling phase of the bladder resulting from loss of detrusor muscle inhibition. The diagnosis of overactive bladder syndrome with the elimination of infection and other bladder pathology in symptomatic patients and overactive detrusor is established with the urodynamic tests. Oral antimuscarinic drugs are used for the treatment. The prevalence of overactive bladder in women in the United States has been reported to be 16.9% and the incidence increases with age (6,7). All quality of life parameters are substantially deteriorates in patients with overactive bladder syndrome (8).

Lower urinary tract symptoms (LUTS) and overactive bladder syndrome are not known how to cause female sexual dysfunction. The same neurological pathways used for bladder control and sexual function and excessive acetylcholine release on bladder during intercourse are accused in some theories. Female sexual dysfunction and overactive bladder syndrome are commonly seen in the same decades of life (40-65 years). Overactive bladder symptoms causing female sexual dysfunction is considered to be due to the fact that squamous epithelium of the trigone and urethra becomes thin and blood flow decreases with reducing estrogen in older postmenopausal women and the function of the main pelvic floor muscles deteriorates with age (1,9). Overactive bladder syndrome affects work life of women, travel comfort, quality of sleep, exercise, social life and married life (10).

Discussion

Patel and colleagues did not detect a statistically significant association between overactive bladder syndrome and sexual dysfunction in their study of 150 women. Sexual arousal difficulties (24%), difficulty of orgasm (27%), decreased sexual pleasure (27%), sexual pain (43%) and frigidity (25%) were reported by the women in the study. Sexual partner status has been observed as the most important factor in sexual arousal, orgasm and sexual pleasure. Symptoms of overactive bladder in women include frequency (73%), stress (76%) and urge incontinence (65%). Women without sexual partners have more sexual arousal than those having partners. 40% of patients who had sexual partners did not have intercourse during the previous month. Menopause and partner status were the most important predictors for female sexual dysfunction (3).

Sexual function was measured with the FSFI in a study of 40 overactive bladder syndrome and 40 control subjects in our country. Only sexual desire was found to be lower in group with overactive bladder syndrome (11).

Gordon and his colleagues have found that 29% of women aged 60 years or younger reported urinary incontinence during sexual activity and that incontinence during sexual intercourse was more common in young women than in elderly women. In addition, they observed that total sexual function scores in subjects with detrusor instability were lower than in those with genuine stress urinary incontinence (12).

In their study, Kim et al. (13) investigated the impact of overactive bladder syndrome on sexual activity and sexual quality of life in 3372 Korean women aged 20-40 years via a multicenter internet survey. They found that the prevalence of urinary incontinence and overactive bladder syndrome was 21% and 12.7%, respectively. Overactive bladder syndrome and urinary incontinence have been reported to be predictors of female sexual dysfunction.

Sexual activity was found to be significantly reduced in women with overactive bladder syndrome and those with urinary incontinence compared to that in asymptomatic subjects. Alteration of the urethrovesical angle and elevation of the bladder neck during sexual intercourse may cause coital incontinence in patients with overactive bladder syndrome. The activity that increase intra-abdominal pressure during sexual intercourse causes urinary leakage. Shame, fear of incontinence, urinary incontinence and urge sensation during intercourse in women with overactive bladder syndrome have been reported to be the main factors causing female sexual dysfunction (13,14). Orgasm is one of the main objectives of sexual intercourse. Female orgasm rates are low (26%) in healthy women, this rate is even lower in patients with overactive bladder. In their study investigating the prevalence of sexual dysfunctions in 227 women with urinary incontinence and/or LUTS, Salonia and colleagues have found that 46% of subjects complaining of orgasmic phase difficulties also reported urge incontinence resulting in termination of sexual activity without orgasm. Additionally, the rate of female sexual dysfunction was observed to be higher in women with urinary incontinence and LUTS compared to that in the general population (15). In a study from Denmark including 7741subjects, Hansen and colleagues investigated the relationship between LUTS and female sexual dysfunction. They have concluded that LUTS were an independent risk factor for sexual dysfunction in both men and women aged 40-65 years (16). In another study, it has been shown that, 3.7 times more women with urge incontinence had no sexual relationship compared to those without LUTS. Sexual function is affected in women with overactive bladder, however, no relationship could be found between sexual activity and the occurrence of LUTS (17). Some studies have shown that Tolterodine was effective in the treatment of overactive bladder and female sexual dysfunction. Anticholinergic therapy has been reported to be successful in 60% of women with urinary incontinence during sexual intercourse (18,19).

In their study including 245 women, Oh et al. (14) investigated the effects of stress urinary incontinence and overactive bladder on female sexual dysfunction. Similar to the results of other studies, they have reported that the rate of female sexual dysfunction in women

with overactive bladder was higher than in those with stress urinary incontinence. Incontinence is more frequent in patients with urge incontinence than in patients with stress urinary incontinence and those patients cannot easily adapt to this situation. Feeling more pain and urine leakage during sexual intercourse have been reported to be more common in women with stress urinary incontinence than in those with overactive bladder. In a study of the effects of overactive bladder and stress urinary incontinence on quality of life, sexual activity and marital relationship, the authors divided the subject into two groups following urodynamic tests: normal and stress urinary incontinence or overactive bladder and compared the groups using the Derogatis Sexual Functioning Inventory for sexual relationship and Dyadic Adjustment Scale for marital relationship and King's Health Questionnaire, for quality of life. They have reported that incontinence during sexual intercourse was more frequent in women younger than 60 years of age. In addition, women with overactive bladder and stress incontinence were reported to have poorer quality of life and marital relationship and less sexual satisfaction compared to normal group. The greatest decrease in sexual function scores were observed in patients with mixed incontinence (20).

In a population-based, cross-sectional telephone survey including 458 individuals, Yoo et al. (10) reported that the overall prevalence of overactive bladder was 22.9% (male: 19%, female: 26.8%). While 19.9% of patients with overactive bladder described severe impact on sexual life, this rate was 3.5% in those without overactive bladder. It was observed that in addition to sexual dysfunction, patients with overactive bladder syndrome had decreased quality of life and high rates of depression.

Overactive bladder syndrome significantly affects sexual health in women. Especially sexual desire, arousal, orgasm, sexual pleasure, self-esteem and marital relationships are negatively affected. The other issues associated with overactive bladder syndrome include female sexual dysfunction, decreased quality of life, deteriorated social relations and increased rates of depression. The common result of the reported studies is that menopausal and partner status is the most important factor in terms of female sexual dysfunction. Although the association between overactive bladder syndrome and female sexual dysfunction has not been proven, overactive bladder syndrome has been demonstrated to be an independent risk factor for female sexual dysfunction. Sexual activity may trigger the symptoms of overactive bladder, thus, urge incontinence and pain may arise in women. Overactive bladder syndrome causes more severe female sexual dysfunction compared to stress urinary incontinence. Pathophysiological relationship between the two disorders has not been elucidated and further clinical and experimental studies are needed in this regard. Since only one in five women receives treatment for sexual dysfunction due to overactive bladder syndrome, urologists and primary care physicians should pay attention on patients with a history of overactive bladder.

Authorship Contributions

Concept: Taha Numan Yıkılmaz, Design: Taha Numan Yıkılmaz, Data Collection or Processing: Serdar Toksöz, Analysis or Interpretation: Serdar Toksöz, Literature Research: Serdar Toksöz, Writing: Taha Numan Yıkılmaz, Peer-review: Internal peer-reviewed, Conflict of Interest: No conflict of interest was declared by the authors, Financial Disclosure: The authors declared that this study has received no financial support.

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