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Sexual dysfunctions in psoriatic patients

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Abstract

Psoriasis is a chronic, immune-mediated disorder with a worldwide occurrence characterized by well-defined infiltrated erythematous papules and plaques, covered by silvery white or yellowish scales. It is a physically, socially and emotionally invalidating disorder that affects 1-2% of the population. Sexual health is an important part of general health and sexual dysfunctions can negatively affect self-esteem, confidence, interpersonal relationships and the quality of life. Dermatology Life Quality Index (DLQI), Psoriasis Disability Index (PDI) and the Impact of Psoriasis on Quality of Life (IPSO) questionnaire are all questionnaires used to assess the quality of life of patients with psoriasis and each has one question regarding sexual dysfunction. Several scales were also designed to particularly assess sexual satisfaction in men and women. The aim of this paper is to perform an overview of the existing studies on sexual dysfunction in psoriatic patients.

Introduction

Psoriasis is a chronic, immune-mediated disorder with a worldwide occurrence characterized by well-defined infiltrated erythematous papules and plaques, covered by silvery white or yellowish scales, usually located on the extensor aspects of the extremities, particularly elbows and knees, along with sacral area and scalp. It is a physically, socially and emotionally invalidating disorder that affects 1-2% of the population (see the picture below) (1, 2).



Figure 1. Psoriasis patient

Psoriasis is associated with psychological disorders, such as depression, low self-esteem, suicidal thoughts and sexual dysfunction (3).

Sexual health is an important part of general health and sexual dysfunctions can negatively affect self-esteem, confidence, interpersonal relationships and the quality of life. However, physicians often underestimate the concerns regarding the sexual difficulties of their patients (4, 5).

Questionnaires regularly used to evaluate the quality of life of patients with psoriasis such as the Dermatology Life Quality Index (DLQI), Psoriasis Disability Index (PDI) or the Impact of Psoriasis on Quality of Life (IPSO) questionnaire, which all have one question regarding sexual dysfunction, provide information from a large number of patients regarding the sexual impairment associated with the disease (6, 7).

Several scales were designed to particularly assess sexual satisfaction in men and women, the most important being the *International Index of Erectile Function (IIEF)* and *Sexual Health Inventory for Men (SHIM or IIEF-5)* scales in men and the *Female Sexual Function Index (FSFI)* scale in women (5).

The IIEF is a 15-item self-administered questionnaire scale designed to address the relevant domains of male sexual function: erectile function, orgasmic function, sexual desire, intercourse satisfaction and overall satisfaction. Each domain is scored 0 or 1 to 5 and higher scores indicate better function while a score of 0 indicates no sexual activity in the last month (5, 8).

The SHIM or IIEF-5 questionnaire includes items 2, 4, 5, 7 and 15 from the IIEF and mostly assesses the erectile dysfunction (5).

The FSFI is a 19 item self-administered questionnaire measuring all aspects of female sexual functions. It has a six domain structure which includes desire, arousal, lubrication, orgasm, satisfaction and pain. Each domain is scored 0 or 1 to 5 and higher scores indicate better function while a score of 0 indicates no sexual activity in the last month (5, 9).

The Arizona Sexual experience Scale (ASEX) is a user friendly 5-item rating scale designed to quantify sexual dysfunction in both men and women. It assesses the core elements of sexual functioning: sex drive, arousal, penile erection/ vaginal lubrication, ability to reach orgasm and satisfaction with orgasm. Higher scores indicate more sexual dysfunction (5, 10).

Discussion

Sexual dysfunction and depression in patients with psoriasis

Several studies associated psoriasis with psychiatric morbidity, especially depression. It is estimated that the prevalence of depression in psoriatic patients is approximately 30 % (11). In 1997 Gupta and Gupta performed a study which included 120 patients with psoriasis and showed that in 40.8% of the patients the sexual functioning had declined after the onset of psoriasis. In their study, sexual dysfunction was associated with depression, joint pains and a tendency for alcohol abuse (11, 12).

A study performed by Sampogna et al between 2000 and 2002 and published in 2007, which included 936 patients with psoriasis who completed two dermatologic specific questionnaires showed

that 35.5% of the patients assessed using the PDI and 71.3% of the patients evaluated with the IPSO reported to have experienced sexual problems. According to them, sexual impairment is more frequently associated with a more severe form of disease and the presence of psychological problems and substantially improves after a reduction of >75% in the clinical severity of psoriasis (6).

Mercan et al investigated sexual dysfunctions and accompanying depression in patients with psoriasis and neurodermatitis using the Beck Depression Scale (BDS) and Arizona Sexual Experience Scale (ASEX) and showed that sexual dysfunction was prominent in these patients when compared with the control group and that there was a positive correlation between sexual dysfunction and depression (13).

Sexual dysfunctions are common in patients with depression and typically affect desire and arousal. Orgasmic problems, however, seem to be the result of disturbed self-esteem or emotional problems (13).

Van Dorssen et al showed in a study performed in 1992 which included 52 patients with psoriasis and 25 patients with atopic dermatitis that one third of the patients, especially women, had problems dating and starting sexual relationships. According to this study sexual responsiveness did not correlate with the extent of the disease or location on genital area of the lesions, but with low self-esteem and other emotional complaints (14).

Mercan et al showed that patients with psoriasis had orgasmic problems rather than problems of desire. Niemer et al showed in a study which included 53 patients with psoriasis, 24 patients with atopic eczema and 52 controls that patients with dermatologic diseases had a significant reduction in the exchange of tenderness of both sexes and the capacity for orgasm for women, but not in the frequency of intercourse (13, 15). Ermetcan et al evaluated sexual dysfunction in psoriatic patients by using the FSFI and IIEF scales to assess sexual function, the Structured Clinical Interview for DSM-IV to diagnose depression and the Hamilton Depression Rate Scale to rate depression. Their study showed that patients with psoriasis, particularly women, have decreased orgasmic function, sexual desire and

overall satisfaction as compared to controls, but coexistent depression had no additional negative effects (4, 16).

Erectile dysfunction in patients with psoriasis

Erectile dysfunction (ED) or the inability to develop or maintain an erection during sexual intercourse is frequently caused by pelvic arterial atherosclerosis. Since psoriasis is associated with systemic and cardiovascular disorders, it has been hypothesized that ED might occur more frequently in patients with psoriasis (17, 18). A study performed by Goulding et al in 2010 which included 92 patients with psoriasis and 130 controls failed to prove that psoriasis was an independent risk factor for the development of ED (17).

However, a study performed by Chung SD in Taiwan in 2012, which included data from the Taiwan National Insurance program and identified 4606 patients with ED and randomly selected 13818 patients as controls, showed that patients with ED were more likely to have been diagnosed with psoriasis prior to the index date than controls and advises practitioners dealing with psoriasis to be alert to the development of ED (18).

Sexual dysfunction in patients with genital psoriasis

Genital psoriasis (see picture below) often presents as well-demarcated, bright erythematous plaques that usually lack the scales because of maceration. It is probably underdiagnosed because of the



patients' embarrassment to address this problem to the physician on one hand, and the physicians' omission to routinely examine the genital area on the other hand (19).

Previous studies, such as the Van Dorsen study performed in 1992, showed that sexual responsiveness does not correlate with the extent of the disease or the genital location of the lesions (4, 14).

Figure 2. Genital psoriasis

This idea is dismissed by Meeuwis et al who showed in 2011, in a study that included 481 patients with psoriasis that patients with genital lesions have a significantly worse quality of life than patients without genital lesions. Sexual dysfunction was detected in a significant number of psoriatic patients in general, especially women, and female patients with genital lesions particularly have high levels of sexual distress (20).

Antipsoriatic treatments and sexual dysfunction

The data regarding sexual dysfunction in patients receiving antipsoriatic treatments is limited to just a few case reports. However its incidence might be underestimated since patients are often reluctant to report sexual dysfunction to their doctors (21).

Retinoids used in the treatment of psoriasis have been shown to be associated with erectile dysfunction. Thereby, etretinate was associated with erectile dysfunction in two separate case reports and the connection between the two was confirmed by positive dechallenge and rechallenge, respectively. Acitretin, the main active metabolite of etretinate, was also reported to induce erectile dysfunction in a patient treated for psoriasis. The patient reported normalization of his sexual activity two weeks after discontinuing the treatment (21, 22, 23).

Methotrexate, an antimetabolite drug used in debilitating forms of psoriasis and psoriatic arthritis, as well as other chronic inflammatory diseases, has also been associated with sexual dysfunction. Thereby, in 2002 Maria A. Aguirre et al reported two cases of sexual impotence and gynecomastia in patients treated with methotrexate for psoriatic arthritis. In 2008 Wylie et al reported two cases of reduced libido and erectile dysfunction in patients treated for chronic plaque psoriasis. In both cases the sexual function returned to normal after the treatment was changed (24, 25).

There is however high hopes that biological therapies might improve sexual dysfunctions in patients with psoriasis. A pilot study conducted by Villaverde et al in 2011 on 20 patients with moderate to severe psoriasis showed a clear improvement in FSFI and IIE rates after the commencement of biological therapies (3). Results from phase III clinical trials on Ustekinumab also

show promising results with respect to the improvement of sexual difficulties in patients with psoriasis (26).

Conclusions

Psoriasis is a physically, emotionally and socially debilitating disorder with a worldwide distribution which affects 1-2% of the global population. Psychological disorders are frequently associated with psoriasis, depression occurring in approximately 30% of the cases. Sexual dysfunctions are commonly associated with depression and usually consist in desire and arousal disturbances. Recent studies however showed that patients with psoriasis have more orgasmic problems and suggest that the sexual dysfunctions might not be a result of depression, but of low self-esteem or other emotional problems. Women seem to be affected more often especially when the lesions are located in the genital area. Studies regarding erectile dysfunction in patients with psoriasis showed contradictory results and the practitioner should keep in mind that the association could occur. Biological therapies show promising results in decreasing sexual dysfunction in psoriatic patients.

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