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SEXUAL DYSFUNCTION IN PSORIASIS: AN OPEN, CROSS SECTIONAL, SURVEY BASED STUDY

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Abstract

Background: Psoriasis is a stigmatizing disease that impairs quality of life and harms self-esteem through its effect on social relationships and self-perception, with a negative impact on sexual health. **Aims:** To find out the prevalence and type of sexual dysfunction in patients with psoriasis vulgaris sexually active males and females. **Methods:** Study Population: This was an open, cross sectional survey-based study. These are patients affected with Psoriasis vulgaris attending dermatology OPD. Sample size was duration based and the duration of study was of 3 months. Inclusion Criteria: 1. Male and female patients of psoriasis of any severity aged more than 18 years and willing to give informed written consent to answer the survey questionnaire. Pre-validated tools to assess sexual function like International index of erectile function6 questionnaire (IIEF) for males and detailed assessment of female patients using female sexual distress scale for females were used. All the statistical analysis was done by SPSS (Statistical Package for Sciences) version 23.0. The project begun after obtaining permission from the Indian Council of Medical Research (ICMR) and Institutional Review Board (IRB). **Results:** The study included total 36 patients of psoriasis vulgaris presenting to dermatology OPD during the study duration of 3 months. Of these 36 patients, 26 (72.22%) were males and 10 were (27.75%) females. Of 26 male patients, 42.30% patients had some degree of erectile dysfunction, 42.30% had effect on orgasmic function, 46.15% altered intercourse satisfaction and 50% had reduced sexual desire. Of 10 females; 30% were experiencing severe sexual distress. Limitations: Short study duration and small size of the study population. **Conclusions:** This study shows that all parameters of sexual health varying from erection function, intercourse satisfaction, sexual desires and orgasmic function are affected in patients suffering from psoriasis.

Key words: Psoriasis, Sexual dysfunction

Introduction

Psoriasis is a multisystem disease which might negatively affect several facets of patient's life, including interpersonal relationships and sexual health. Genital psoriasis is present in up to 60% of psoriasis patients[1]. Dermatologists should be aware of implications of psoriasis on sexual health of the patient. Several studies have tried to study independent component of sexual health like erectile dysfunction and its association with psoriasis. The aim of this study is to synthesize the scientific evidence regarding psoriasis and sexual function to facilitate new scientific findings into clinical practice, and to serve as a basis for conducting future research. There is a deficit of such investigations in Indian patients due to lack of communication. It is seen that patients are often hesitant in discussing their sexual health and complications that might be associated with it. As a result, such researches are seen to be sporadic in India.[2,3]

Objective

To find out the prevalence of sexual dysfunction in patients with psoriasis vulgaris sexually active males and females.In addition, we also intend to study common type of psoriasis vulgaris associated sexual dysfunction. Effect of severity of psoriasis, medication and presence of other risk factors like obesity, diabetes mellitus was evaluated. Important sexual parameters like Erectile function, orgasmic function, sexual desires, intercourse satisfaction and overall satisfaction were evaluated to find specific type of sexual dysfunction in males.

Methods

The project begun after obtaining permission from the Indian Council of Medical Research (ICMR) and Institutional Review Board (IRB). The approval of, Head of Department (HOD) and Hospital Superintendent was taken and a written consent of the patients was obtained. The patients were informed that their participation is entirely voluntary. Confidentiality of data was maintained. Patients were enrolled irrespective of their ethnicity. Study Population: These were patients affected with Psoriasis vulgaris attending dermatology OPD. Sample size was duration based and the duration of study was of 3 months. This was an open, cross sectional survey-based study. Inclusion Criteria: 1. Male and female patients of psoriasis of any severity aged more than 18 years. 2. Those willing to give informed written consent and willing to answer the survey questionnaire. 3. New as well as old cases of patients suffering from psoriasis were entered upon. Exclusion Criteria: Patients who were not willing to give their written informed consent. In the current study, pre-validated tools to assess sexual function were used. Namely, Detailed assessment of male patients by the International index of erectile function questionnaire (IIEF) (ANNEXURE 1), And detailed assessment of female patients using female sexual distress scale3 (ANNEXURE 2), along with the 9th question of the Dermatology Quality of Life Index (DLQI) – 'Over the last week, how much has your skin caused any sexual difficulties?Psoriasis related factors like: psoriasis severity

evaluated by Psoriasis Area and Severity Index (PASI) or Self-Administered PASI, the presence of lesions in the genital area, the presence of disturbances in mood status, especially depression, age, psoriatic arthritis and female gender, relation to the treatment modality used were assessed. Statistical analysis of the data was carried out by relevant statistical test. Data was entered into the Microsoft Excel, 2016 version and was analyzed for the sustainability of efficacy and other different variables by using Paired t test and ANOVA was used for the comparison. All the statistical analysis was done by SPSS (Statistical Package for Sciences) version 23.0 (IBM corporation California).

Results

The study included total 36 patients of psoriasis vulgaris presenting to dermatology OPD during the study duration of 3 months. Of these 36 patients, 26 (72.22%) were males and 10 were (27.75%) females. Male to female ratio of 2.6:1 suggesting psoriasis being more common in males. (Table 1)Mean age of male patients was 42.81 ± 13.348 and in females Patients it was 41.70 ± 13.098. Majority of female patients belonged to 3rd decade. Of the 10 females, 9 were house wives and 1 was working as tailor on daily wages. Mean body weight of the males in current study was 69.80 ± 16.838. Mean systolic blood pressure was 118.60 ± 15.057 and BP (diastolic) mean is 77.80 ± 5.846 for female patients and males.Of 36 patients, 2 female and 9 male patients had positive family history of psoriasis. So, in our study incidence of positive family history was 30.55% (n=11). Of 26 male patients 61.53% (n=16) had history of addiction to some or other form of tobacco.

Table 1. Sex distribution of patients

Sex	No. Of patients
Male	26 (72.22%)
Female	10 (27.75%)
Total	36

Study of individual component of sexual function in males:Sexual health in males were evaluated using IIEF scores in five different parameters, namely: Erectile function, orgasmic function, sexual desires, intercourse satisfaction and overall satisfaction were studied.

Of 26 male patients, 11 (42.30%) patients had some degree of erectile dysfunction and of all patients with erectile dysfunction most (81.81%) had severe erectile dysfunction. (Table 2) When, scores of erectile functions correlated with the severity of Psoriasis (PASI) score (Table 3), erectile dysfunction was not correlating to the severity of psoriasis and was found even with lower PASI score.

Table 2. Male and Sexual Health/function Based on evaluation of IIEF scores:

Erectile function	Severe erectile dysfunction (1-10)	Moderate dysfunction (11-16)	Mild to moderate dysfunction (17-21)	Mild dysfunction (22-25)	No dysfunction (26-30)
Number of patients	09	00	02	00	15

Table 3. Psoriasis and erectile function:

Erectile function	Number of patients affected based on the score	Average PASI Score
No dysfunction (26-30)	15	5.38
Mild dysfunction (22-25)	00	-
Mild to moderate dysfunction (17-21)	02	12.95
Moderate dysfunction (11-16)	00	-
Severe erectile dysfunction (1-10)	09	2.7
Total	26	

Of 26 male patients, 10 (38.46%) had severely affected orgasmic function and 1(3.84%) somewhat affected orgasmic function. Here, also orgasmic function alteration was commonly seen at lower PASI scores. (Table 4) Of 26 patients, 13 (50%) patients had deleterious effect on sexual desires in 4(15.38%) of whom it was severely affected and 9(34.61%) of patients, it was somewhat affected. (Table 5). Here, too altered sexual desires were irrespective of the severity psoriasis. (Table 6) Based on combination of all parameters studied, 12 (46.15%) had reduced overall satisfaction. (Table 7) Chart 1 shows comparision of various parameters of sex affected and its severity in males. Sexual function in females were evaluated using Female Sexual Distress Scale (R), of 10 females; 30% (n=3) were experiencing severe sexual distress and 70% (n=7) were unaffected. (Table 8). Females with higher PASI score [Average 10.6] had higher distress score and more probability of having being affected with sexual distress.

Table 4. Orgasmic function and PASI score

Orgasmic function	**Patients affected based on score**	**Average PASI Score**
Minimally affected (Normal) [8-10]	15	6.766
Somewhat affected [4-7]	1	9.2
Severely affected [2-3]	10	2.725

Table 5. Psoriasis & Sexual desire in males:

Sexual Desire	Number of patients affected based on the score	Average PASI Score
Minimally affected (Normal) [8-10]	13	5.6
Somewhat affected [4-7]	09	5.375
Severely affected [2-3]	04	2.4

Table 6. Psoriasis and Intercourse satisfaction in males:

Intercourse satisfaction	Number of patients affected based on the score	AVERAGE PASI SCORE
Minimally affected (Normal) [13-15]	3	8.66
Somewhat affected [6-12]	13	4.8
Severely affected [<6]	10	2.88

Table 7. Psoriasis & Overall satisfaction in males:

Overall Satisfaction	Number of patients affected based on the score	AVERAGE PASI SCORE
Minimally affected (Normal) [8-10]	14	6.29
Somewhat affected [4-7]	04	5.97
Severely affected [2-3]	08	2.36

Table 8. Female Sexual Distress Scale (R):

FSD SCALE	Number of patients affected based on the score	Average PASI score
No. of female with FSDS Score (>/=) 11	03	10.6
No. of female with FSDS score <11	07	3.6
Total	10	

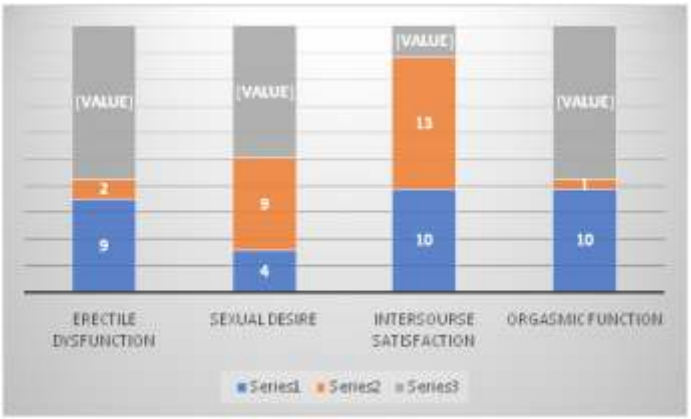

Chart 1: Sexual dysfuction in males with its various components
Series 1: indicates severely affected, Series 2: somewhat affected, series 3: minimally affected

Discussion

The dermatologist is the axis of the medical care of psoriasis patients, especially those with more severe conditions. Available studies underline the central role that the dermatologist might play to improve the sexual function of patients with psoriasis by improving the skin symptoms. Therefore, the presence of sexual dysfunction could be considered a criterion of severity in psoriasis when choosing a treatment, similar to the presence of psoriasis lesions on visible areas or when there is a considerable impact on quality of life (DLQI > 10).[4]

Psoriasis and erectile dysfunction (ED): Erectile dysfunction (ED) is defined as the inability to attain or maintain a penile erection sufficient for successful vaginal intercourse.[5] It hypothesized that ED occurs more commonly in patients with psoriasis, at least in part due to incipient atherosclerosis, which may offer an opportunity for early intervention.[6] The J.M.R. Goulding's study suggested an emerging association between psoriasis, the metabolic syndrome and atherosclerotic disease. The risk of erectile dysfunction is also higher in psoriasis patients. In study by Eltaweel AEAI et al., Patients with psoriasis showed a significant lower serum level of total testosterone, higher level of estradiol, and impaired erectile function relative to healthy controls. It concluded that the detected hormonal disturbance in male psoriasis patients may be a cause of the associated erectile dysfunction beside the known effect of chronic systemic disease on patients' erectile function.[7]The risk factors associated with sexual dysfunction in psoriasis patients are disease severity, female gender, psoriatic arthritis and age.[8] Depression, old age and smoking were found to be independent risk factors for ED.[9] Most studies assessing sexual function in males have studied ED only. Our study showed that ED is not particularly seen in individuals with severe disease but also in patients with mild forms of psoriasis. This finding is comparable to study by Bardazzi, F. et. Al that showed group of mild psoriasis, the patients who suffered from ED were the 56.67%, while in the group of severe psoriasis, ED affected the 46.68% of subjects in their study.[10] However, It is also documented in study by Marta Wojciechowska-Zdrojowy et al. that out of total participants 43.6 % had erectile dysfunction while 96.1 % had felt unattractive during exacerbated phase of disease and avoid sexual intercourse.[11]

It is important to understand this negative correlation with PASI and sexual dysfunction as even though when psoriasis affects only genitals and/or hands, based on body surface area their representation is small but they are important primary and secondary sexual organs. The same findings are reciprocated in study that concluded negative correlation between the PASI score and the overall sexual satisfaction wherein psoriatic female patients with genital psoriasis had more significantly impaired sexual function compared with either those without genital lesions or those with lesions elsewhere in the body.[12]

Apart from erectile dysfunction, information and research about affection of other components of sexual health is scarce in dermatology literature. However, our study highlights other parameters of sex like orgasmic function, intercourse satisfaction and sexual desire are also affected by diagnosis of psoriasis in a given individual as seen in 42.30%, 46.15% and 50% of patients in our study respectively.

Psoriasis and sexual distress in female: The skin manifestations of psoriasis make this a highly visible disease, causing the patient to feel stigmatized. Many women report some degree of difficulty in their sex life, ultimately resulting in intense personal distress and decreased quality of life. [13] Based upon evaluation of female sexual distress scale our results suggests 30% women with psoriasis experienced some degree of sexual distress. A study by AdawiyahJa et al. showed prevalence of FSD in the patients with psoriasis was 20.3%, with hypoactive sexual desire being the most prevalent problem (44.3%)[14] and 48.7% in study by Meeuwis KA et al.[15] Sexual dysfunction was associated with older age, menopause, low body mass index, longer duration of marriage and presence of psoriasis in the genital area.

Conclusion:

The study further establishes the earlier findings thatan assessment of sexual function should be part of the routine holistic care provided for dermatology outpatients.This study shows that all parameters of sexual health varying from erection function, intercourse satisfaction, sexual desires and orgasmic function are affected in patients suffering from psoriasis. Just a diagnosis of 'psoriasis' and fear of having psoriasis on accessory sex organs such as hands, genitals and breast along with fear of being contagious affects the psychology of patients and leads to overall decline in all parameters related to sexual health in both male and female.For sexual health to be attained and maintained, the sexual rights of all persons must be respected, protected and fulfilled, all this is hampered in Psoriasis.The dermatologist could facilitate communication regarding sexual problems, speeding therapy by identifying the etiology of the problem and referring the patient to the proper specialist.

Strength of the study

1. This study was first of its kind in Indian Psoriatic patients and their sexual health was measured simultaneously with disease.
2. Our study can be a stepping stone in the QOL assessment in psoriatic patients before and after the therapy can guide the dermatologist about the improvement in the sexual health

domain of the patients

Limitation of study

1. However, inclusion of patients of above 60 years of age in the study may act as confounding factor due to natural decline in sexual activity. This could be one of the reasons for psoriasis severity not affecting the sexual function parameters in current study.
2. The study duration was very short.

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Reference

1. Ryan C, Sadlier M, De Vol E, et al. Genital psoriasis is associated with significant impairment in quality of life and sexual functioning. J Am Acad Dermatol. 2015;72(6):649-655.
2. The international index of erectile function (IIEF): a multidimensional scale for assessment of erectile dysfunction. Raymond C. Rosen, Alan Riley, Gorm Wagner, Ian H. Osterloh, John Kirkpatrick, Avanish Mishra (1997).Urology.
3. Nijsten T. Dermatology life quality index: time to move forward. J Invest Dermatol 2012; 132: 11–13.
4. Shamloul R, Ghanem H. Erectile dysfunction. Lancet 2013; 381:153-165.
5. J.M.R. Goulding, et al. Erectile dysfunction in patients with psoriasis: increased prevalence, an unmet need, and a chance to intervene., 2010 British journal of dermatology.
6. Eltaweel AEAI et al., Sex hormones, erectile dysfunction, and psoriasis; a bad friendship! PubMed, 2018
7. A. Molina-Leyva et al., Sexual dysfunction in psoriasis: a systematic review, journal of European academy of dermatology and venerology, 2014
8. Tasliyurt T et al., Erectile dysfunction in patients with psoriasis: potential impact of the metabolic syndrome, PubMed, 2018
9. Bardazzi, F. ,Odorici, G. , Ferrara, F. , Magnano, M. , Balestri, R. and Patrizi, A. (2016), Sex and the PASI: patients affected by a mild form of psoriasis are more predisposed to have a more severe form of erectile dysfunction. J Eur Acad Dermatol Venereol, 30: 1342-1348.
10. Marta Wojciechowska-Zdrojowy, Adam Reid, Jacek C. Szepietowski& Adam Wojciechowski (2019)Analysis of Sexual Problems in Men With Psoriasis, Journal of Sex & Marital Therapy.
11. Abul Maaty, A. S., Gomaa, A. H., Mohammed, G. F., Youssef, I. M. and Eyada, M. M. (2013), Female Sexual Function in Patients with Psoriasis. J Sex Med, 10: 1545-1548.
12. Kurizky PS, MotaLmhda, MotaLicia MHD. Disfunção sexual empacientes com psoríase e artritepsoriásica - umarevisãosistemática. Rev Bras Reumatol. 2012;52(6):943–948.
13. AdawiyahJa ,MoonyzaAAKa , Hatta Sb , Mohd Rizal AMc , Felix BBYd , Nik RuzyaneiNJb et al. The Risk and Associated Factors of Female Sexual Dysfunction (FSD) in Women with Psoriasis. International Medical Journal Malaysia . Jun2017, Vol. 16 Issue 1, p107-113.
14. Meeuwis KA, de Hullu JA, van de Nieuwenhof HP, et al. Quality of life and sexual health in patients with genital psoriasis. Br J Dermatol. 2011;164(6):1247–1255.