Genital psoriasis is associated with significant impairment in quality of life and sexual functioning

Caitriona Ryan, MD,[a,b] Muriel Sadlier, MBBCh,[c] Edward De Vol, PhD,[d] Mahir Patel, MD,[a] Amanda Abramson Lloyd, MD,[a] Antoinette Day, BS,[b] Aoife Lally, MD,[c] Brian Kirby, MD,[c] and Alan Menter, MD[a,b]
Dallas, Texas, and Dublin, Ireland

Background: Genital involvement has significant psychosexual implications for psoriasis patients.

Objective: This study was designed to ascertain factors associated with the development of genital psoriasis and its impact on quality of life and sexual functioning.

Methods: This was an observational, multicenter study of 354 consecutive psoriasis patients.

Results: One hundred thirty-four patients (38%) had current genital involvement while 224 (63%) had a current and/or previous history of genital involvement. Eighty-seven percent reported itch, 39% pain, 42% dyspareunia, 32% a worsening of their genital psoriasis after intercourse, and 43% a decreased frequency of intercourse. Younger age of onset of psoriasis, male sex, more severe disease, and involvement of the scalp, flexures, and nails were associated with the presence of genital disease. There was no association with circumcision or obesity. Patients with genital psoriasis had more impairment in quality of life and sexual health as determined by the Dermatology Life Quality Index ($P < .0001$), the Center for Epidemiological Studies-Depression Scale ($P = .01$), and the Relationship and Sexuality Scale ($P < .0001$).

Limitations: This was a descriptive study from 2 tertiary referral centers where patients were likely to have more severe psoriasis.

Conclusion: This study highlights the high prevalence of genital psoriasis and its profound impact on quality of life and sexual health. (J Am Acad Dermatol 2015;72:978-83.)

Key words: depression; genital psoriasis; psoriasis; quality of life; sexual function; topical therapy.

Psoriasis is a chronic, inflammatory skin disorder with a considerable impact on social functioning and personal relationships.[1-3] Genital psoriasis has been shown to be the most stigmatizing area of psoriasis involvement, regardless of overall disease severity.[4] Current psoriasis-specific scales neglect the impact of disease on sexual health.

This study was designed to examine the prevalence and nature of genital involvement in patients

Abbreviations used:

BSA:	body surface area
CES-D:	Center for Epidemiological Studies Depression Scale
DLQI:	Dermatology Life Quality Index
OR:	odds ratio
PASI:	Psoriasis Area and Severity Index
QOL:	quality of life
RLSS:	Relationship and Sexuality Scale

From the Department of Dermatology,[a] Baylor University Medical Center, and the Department of Medical Education,[b] Texas A&M Health Science Center, Dallas; Department of Dermatology,[c] St. Vincent's University Hospital, Dublin; and the Department of Quantitative Sciences,[d] Baylor Health Care System, Dallas.

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Reprint requests: Caitriona Ryan, MD, Department of Dermatology, Baylor University Medical Center, 3900 Junius St, Ste 145, Dallas, TX 75246. E-mail: caitrionaryan80@gmail.com.

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with psoriasis, to characterize factors associated with its development and phenotypical associations, and to determine the impact of genital disease on quality of life (QOL) and sexual functioning.

METHODS

This was an observational, multicenter study of 354 consecutive adult psoriasis patients conducted in, Dallas, Texas and Dublin, Ireland between September 2010 and July 2012. Ethical approval was granted by each institute. All patients gave informed, written consent. Patient demographics, psoriasis, and medical history were recorded. Psoriasis clinical severity was measured using both the Psoriasis Area and Severity Index (PASI) and percentage body surface area (BSA) affected.[5] Comprehensive information pertaining to psoriasis clinical phenotype was also collected. Affected genital areas and perigenital areas were recorded, and a modified genital PASI was calculated.[6] This scoring index has previously been used to evaluate male genital psoriasis.[6] It incorporates the degree of erythema, induration, and scaling or erosion of genital plaques as a product of the genital area involved. The area comprises the penis and scrotum in males, but not the inguinal creases or the pubic region. A corresponding but yet unvalidated scale was used for females.

A questionnaire inquiring about symptoms relating to genital disease and its impact on sexual activity was administered to each patient. Patients also rated their satisfaction with previous topical treatments for their genital disease. The Dermatology Life Quality Index (DLQI) and the Center for Epidemiological Studies Depression Scale (CES-D) were used to measure patient QOL.[7,8] The Relationship and Sexuality Scale (RLSS) was used to assess the impact of disease on sexual functioning, evaluating sexual function, sexual frequency, and sexual fear.[9]

RESULTS

Baseline characteristics and psoriasis severity

A total of 354 patients were recruited to the study. Baseline demographics and clinical characteristics are summarized in Table I. Sixty-two percent of patients were taking systemic or biologic treatments. The only statistical differences between the 2 groups were a higher frequency of circumcision in the Dallas group and a higher proportion of males in the Dublin group (Table II).

CAPSULE SUMMARY

- Psoriasis patients have a high prevalence of genital involvement.
- Psoriasis patients with genital involvement have significant impairment in sexual health and quality of life.
- Dermatologists should screen all psoriasis patients for genital disease and its impact on their quality of life.

Prevalence and clinical characteristics of genital involvement

One hundred thirty-four patients (38%) had current genital involvement, and 224 patients (63%) reported having experienced genital involvement (ie, current and/or previous disease) at some point during their disease course. A modified genital PASI was calculated for 126 (94%) of the 134 patients with genital involvement. The median value was 6 (range 1-60).

The most commonly affected genital area in males was the shaft of penis (36%), followed by the scrotum (33%) and glans penis (29%; Fig 1). In affected females, 51% had involvement of the labia majora, 28% the perineum, and 23% the labia minora.

Factors associated with genital psoriasis

Extensive analyses were carried out to investigate factors associated with the development of genital disease (Table II). A younger age of onset was associated with higher frequency of genital disease ($P = .0063$). Patients with current genital involvement were younger ($P = .01$). A higher proportion of males had genital disease (current: chi-square, 9.34 [$P = .002$]; ever: chi-square, 12.61 [$P = .0004$]). Patients who had a history of smoking (current or previous) were more likely to have current genital disease (chi-square, 7.02 [$P = .03$]), but this association was no longer significant when current smokers were analyzed in isolation (chi-square, 0.45 [$P = .5$]).

Increased overall disease severity was strongly associated with the presence of current genital psoriasis, as measured by PASI ($P < .0001$) or affected BSA ($P < .0001$). There was correlation between the genital PASI and overall PASI ($P < .0001$). Patients who had been treated with a higher number of systemic or biologic treatments in the past were also more likely to have had genital involvement ($P = .026$). The presence of scalp involvement (odds ratio [OR] = 2.69, $P < .0001$), nail disease (OR = 2.48, $P = .0002$), axillary involvement (OR = 16.22, $P < .0001$), and inframammary involvement (OR = 10.2, $P < .0001$) were associated with the presence of genital disease. Current palmar-plantar involvement (n = 20) was not associated with current genital disease (OR = 0.7, $P = .636$), but these patients reported a decreased