Research Square

Preprints are preliminary reports that have not undergone peer review.
They should not be considered conclusive, used to inform clinical practice,
or referenced by the media as validated information.

Impact of Psoriatic Arthritis on the Quality of Life: A Cross-Sectional Analysis

Leila Rouached
Hôpital Charles-Nicolle
Rawdha Tekaya
Hôpital Charles-Nicolle
Mehdi Jemmali
doctormehdij@gmail.com

Hôpital Charles-Nicolle
Meriem Ben Messaoud
Hôpital Charles-Nicolle
Siwar Ben Dhia
Hôpital Charles-Nicolle
Aicha Ben Tekaya
Hôpital Charles-Nicolle
Ines Mahmoud
Hôpital Charles-Nicolle
Selma Bouden
Hôpital Charles-Nicolle
Leila Abdelmoula
Hôpital Charles-Nicolle

Research Article

Keywords: Psoriatic Arthritis, Quality of Life, Assessment, Scale

Posted Date: August 27th, 2026

DOI: https://doi.org/10.21203/rs.3.rs-10084828/v1

License: This work is licensed under a Creative Commons Attribution 4.0 International License.
Read Full License

Additional Declarations: No competing interests reported.

Abstract

Background: Quality of life (QoL) assessment is an essential component of psoriatic arthritis (PsA) management. This study aimed to evaluate QoL in PsA patients using the Psoriatic Arthritis Quality of Life questionnaire (PsAQoL) and generic QoL measures, to examine correlations between these instruments, and to identify factors associated with QoL.

Methods: A cross-sectional study was conducted in patients with PsA. Sociodemographic, clinical, therapeutic, biological, and radiographic data were collected. QoL was assessed using PsAQoL and generic questionnaires. Disease activity was evaluated using the Composite Psoriatic Disease Activity Index (CPDAI), together with measures of functional status and fatigue. Correlation and association analyses were performed.

Results: Forty patients were included (mean age 52.5 years; male-to-female ratio 2:1). According to PsAQoL, nearly two-thirds of patients had good QoL. PsAQoL showed significant correlations with the Health Assessment Questionnaire (r=0.73) and the sixth dimension of the EUROQOL-5D (r=0.39). Factors significantly associated with better QoL were remission or low disease activity (OR=1.9), lower functional impairment (OR=10.5), absence of radiographic involvement of fingers and/or toes (OR=4.12), absence of extra-articular manifestations (OR=4.6), lower fatigue levels (OR=14.4), lower pain intensity (p=0.027), and shorter disease duration (p=0.023). No significant associations were found with cutaneous involvement (p=0.73), enthesitis (p=1), coxitis (p=0.73), or clinical phenotype (p=0.7).

Conclusion: PsAQoL is a valuable disease-specific tool for assessing QoL in PsA. Improving QoL requires achieving remission or low disease activity, reducing functional impairment and pain, monitoring structural damage, and addressing fatigue through comprehensive multidisciplinary care.

Introduction

Psoriatic arthritis (PsA) is a form of inflammatory arthritis classified within the spondyloarthritis group. PsA impacts not only peripheral joints and the skin but also involves inflammation at entheseal sites, digits (dactylitis), and the axial skeleton (1). PsA affects approximately 1 to 3% of the general population, and it is reported that around 20 to 30% of patients with psoriasis may develop PsA (2).

This rheumatism is distinctive due to its clinical (joint and skin) and radiological heterogeneity, explaining the challenges encountered during diagnosis and monitoring.

PsA can be responsible for joint destruction of varying severity (3), with preferential involvement of small joints in peripheral forms, leading to functional impairment and a decrease in Quality of life (QoL). This exacerbates the social distress associated with skin lesions.

Therefore, the assessment of PsA is crucial for both therapeutic management and improvement of QoL. It relies on suitable tools, sometimes borrowed from other chronic inflammatory rheumatisms, notably rheumatoid arthritis and ankylosing spondylitis.

This assessment encompasses various components of rheumatism and involves the clinical phenotype (skin involvement, axial involvement, joint involvement, enthesitis, dactylitis), radiological stage, as well as the evaluation of functions and QoL.

Indeed, over the last decade, the assessment of QoL in PsA has been thoroughly studied. Valid, reliable, and specific measurement tools have been developed. These tools can be used both in clinical trials and in everyday practice (4). This necessity aligns with the growing paradigm of strict disease control and targeted therapeutic management (the 'Treat to Target' concept).

The main objectives of this study were to assess the QoL in patients with PsA using specific scores: Psoriatic Arthritis Quality of Life (PsAQoL), and non-specific scores (Health Assessment Questionnaire (HAQ) and the European Quality of Life instrument (EUROQoL-5D)), to assess correlations between these scores and identify factors influencing QoL.

Methods

Patients and setting: We conducted a cross-sectional study. Data collection was carried out over a period of 18 months.

This study focused on patients with PsA who were being treated at our department of rheumatology .

The eligible patients were those aged 18 years and older who agreed to participate in the study.

The diagnosis was made by rheumatologists and based on the Assessment of Spondyloarthritis international Society (ASAS) 2009 criteria and/or the Classification criteria for Psoriatic Arthritis (CASPAR).

All participants provided written informed consent, and the study received approval from the local medical research ethics committee.

Patient and disease characteristics: Data collection was carried out uniformly by a single investigator (medical resident) using a pre-established form.

Sociodemographic data including age, gender, and anthropometric data were collected.

The patient interview specified the characteristics of PsA, including comorbidities, family history of psoriasis and/or spondyloarthritis, age of disease onset, diagnostic delay, and disease duration.

Clinical data were collected, comprising clinical phenotype of PsA, the presence of axial or peripheral joint involvement, the chronology of skin involvement in relation to joint involvement, the type and localization of psoriasis, and the presence of extra-articular manifestations.

The therapeutic management of joint involvement (Nonsteroidal anti-inflammatory drugs, systemic corticosteroids, Conventional synthetic Disease-Modifying Antirheumatic Drugs (Cs DMARDs), biological

treatments) and psoriasis (Topical corticosteroids, PUVA therapy) were recorded.

All study participants underwent a biological and radiographic assessment.

The activity of PsA was assessed through the duration of morning stiffness, the number of nocturnal awakenings, patient's overall assessment, estimation of pain intensity, and the count of swollen and tender joints (66 and 68 joints, respectively).

The Bath Ankylosing Spondylitis Activity Disease Index (BASDAI), the Disease Activity Score 28 (DAS28), and the Composite Psoriatic Disease Activity Index (CPDAI) were estimated for all patients. The functional status was assessed by the Bath Ankylosing Spondylitis Functional Index (BASFI).

Primary outcome of interest: All patients responded to QoL questionnaires including the PsAQoL which is specifically designed for PsA. This QoL assessment questionnaire is used to evaluate patient-reported responses in routine clinical practice and during clinical trials. The questionnaire comprises 20 items, each with a response of either true or false (scores 1 and 0, respectively). The overall score, obtained by summing the scores of different items, ranges from 0 to 20, with a lower score indicating better quality of life. Patients with a PsAQoL score below 9 were considered to have good QoL. The number 9 represents the median of the PsAQoL distribution found in the original publication detailing the development of PsAQoL by the team of Mckenna et al. (5).

Apart from PsAQoL, all patients responded to the Dermatology Life Quality Index (DLQI). DLQI is the first questionnaire specifically designed for assessing QoL related to dermatological conditions.

Non-specific scores were also used, including the Tunisian version of the HAQ and the EUROQoL-5D. EUROQoL-5D is a versatile QoL tool encompassing five dimensions (mobility, self-care, usual activities, pain/discomfort, and anxiety/depression) along with a visual analog scale (6).

The assessment of fatigue was performed using the Functional Assessment of Chronic Illness Therapy (FACIT)-Fatigue Scale. This score is validated for assessing fatigue in PsA (7). It consists of 13 items assessed on a 4-point Likert scale concerning the seven days preceding the evaluation. The overall score ranges from 0 to 52, with higher scores indicating lower levels of fatigue.

Statistical analysis: The data were analyzed using the SPSS (Statistical Package for Social Science) software version 18 for Windows. Patient characteristics were described using simple descriptive analysis techniques.

All tests were assessed at a significance level of 5%. Correlation coefficients between QoL assessment scores were calculated. Correlation analysis was conducted using either Pearson or Spearman correlation tests (normal distribution was assessed using the Kolmogorov-Smirnov Normality test). A significance level of $p \leq 0.05$ was considered to indicate the presence of a relationship between the two variables being tested. The strength of the correlation was categorized based on the absolute value of the Spearman correlation coefficient: > 0.50; 0.30–0.49; and 0.10–0.29 were considered strong,

moderate, and weak correlations, respectively. We focused on comparing patients with good quality of life to those with poor quality of life to determine factors associated with good quality of life.

Statistical Analysis: Firstly, a univariate analysis was conducted. For qualitative variables, the comparison of two percentages in independent series was performed using either Pearson's Chi-square test or Fisher's exact bilateral test (depending on the conditions for the application of each test). The odds ratio (OR) and its 95% confidence interval were calculated. For quantitative variables, the comparison of two means in independent series was carried out using the non-parametric Mann-Whitney test (for a small sample).

Secondly, a multivariate analysis was employed using stepwise binary logistic regression. All factors from the univariate analysis with a significance level below 0.2 were introduced into the model. Factors or variables exploring the same dimensions were not included in the model.

Results

Forty patients diagnosed with PsA were included. Table 1 shows patient characteristics at baseline. The majority of patients (82.5%) had a disease duration of more than five years.

Regarding the clinical phenotype of PsA, only two patients had a purely axial involvement. The majority of cases (82.5%) presented with a mixed form. Twelve patients, representing 30% of the population, had coxopathy, which was unilateral in 50% of cases. Clinical enthesitis was observed in 23 patients, accounting for 57.5% of the study population. The Leeds Enthesitis Index (LEI) revealed that 50% of patients had more than one site affected.

Regarding psoriatic involvement, at inclusion, the most common site of psoriasis was the skin in 27 patients (67.5%), while psoriatic nail involvement was noted in 14 patients (35%).

PsA without psoriasis was observed in five patients, accounting for 12.5%. For the remaining 35 patients, the average duration of cutaneous involvement was estimated at 108.1 ± 95 months.

Half of the patients had at least four locations of psoriasis at disease onset, while at the time of the clinical examination, 50% of the patients had fewer than two locations. The most frequently observed locations among patients were the elbows, knees, back, abdomen, and scalp.

Thirteen patients (32.5%) exhibited extra-articular manifestations, including dry syndrome, which was the most frequent manifestation, observed in five patients, accounting for 38.4% of cases. Uveitis, pulmonary involvement, renal involvement, and digestive involvement were each noted in three patients, constituting 23% of cases for each.

Regarding therapeutic characteristics, the majority of patients were on symptomatic treatments. Fourteen patients with peripheral PsA had required a low dose of corticosteroids in the short term in

conjunction with the background treatment. These patients presented with a peripheral form of the disease and had a contraindication to Non-steroidal Anti Inflammatory Drugs.

Among patients with peripheral or mixed psoriatic arthritis (n=38), 33 patients (82.5%) were receiving Cs DMARDs, Methotrexate was the most prescribed, given to 28 patients (84.8% of those receiving Cs DMARDs). Biologic therapy was prescribed for 15 patients (37.5%), and in all cases, it was an anti-TNF alpha agent.

Regarding psoriasis treatment, dermatological treatment was prescribed in conjunction with joint involvement treatment for 33 patients, representing 94.2% of those with psoriatic arthritis and cutaneous involvement. The most commonly prescribed treatment was local corticosteroid therapy (91.4%).

After age adjustment, the erythrocyte sedimentation rate (ESR) was elevated in 30 patients, accounting for 75% of the patients. C-reactive protein (CRP) was elevated in 29 patients, representing 72.5%. A biological inflammatory syndrome was observed in 31 patients, comprising 77.5% of the study population.

Radiologically, sacroiliitis was present in two-thirds of the patients, with more than half of them having advanced stages of involvement (stages 3 or 4 in the Forestier classification), while only 30% had coxitis. Radiological axial involvement was revealed in 85% of the patients, and radiological involvement of the fingers and/or toes was present in approximately half of the patients, with around 50% being in advanced stages (CRDO 3 to 5).

Regarding the assessment of psoriatic arthritis activity, 32 patients (80%) had moderate to high disease activity according to the CPDAI (CPDAI ≥8); 16 patients (40%) had active disease according to the BASDAI score (BASDAI ≥ 4); and 30 patients (75%) of the study population, had moderate to high activity in their PsA referring to the DAS28 score.

Functional impairment evaluation revealed functional impact in 14 patients, accounting for 35%, with a BASFI score ≥ 4.

For the assessment of quality of life, considering the cutoff of 9 for PsAQoL score, 25 patients (62.5%) had a good quality of life. Regarding the QoL assessment using the non-specific HAQ score, data analysis concluded that 27 patients (67.5%) had mild to moderate disability (HAQ less than 1).

The health profile study, referring to various dimensions of EUROQoL-5D, revealed that nearly half of the patients reported mild to severe difficulty with daily activities. Approximately two-thirds of the patients experienced mild to intense pain or discomfort, and more than half exhibited mild to severe anxiety and depression.

Fatigue assessment according to the Functional Assessment of Chronic Illness Therapy-Fatigue Scale revealed that 62.5% of the study population had a fatigue score >30, indicating a low degree of fatigue.

The results revealed a significant correlation between specific and non-specific quality of life assessment scores in PsA.

PsAQoL showed a positive correlation with HAQ, with a strong Spearman correlation coefficient >0.5, and a negative correlation with the 6th question of EUROQoL-5D, showing a moderate and significant correlation of 0.39. Similarly, the results demonstrated a significant negative association between HAQ and the 6th question of EUROQoL-5D.

The study of factors associated with good QoL in the study population showed that a low level of fatigue and the absence of functional impact of the disease were strongly associated with better QoL, with respective odds ratios of 14.4 and 10.5, and significance levels (p) of 0.001 and 0.002, respectively. Other associated factors included disease remission or low activity (CPDAI < 4, OR = 1.9, p = 0.016), absence of extra-articular manifestations (OR = 4.3, p = 0.041), absence of radiographic involvement in fingers and/or toes (CRDO = 0) (OR = 4.12, p = 0.041), a short disease duration (p = 0.023), low pain levels (p = 0.027), and fewer nocturnal awakenings (p = 0.01) (table 2).

However, we did not find an association between QoL and the following factors: cutaneous involvement, enthesitic involvement, coxitis, and the clinical phenotype of PsA.

After adjusting for all factors using the multivariate analysis method, the results showed that only a low level of fatigue and a short duration of disease were significantly associated with good QoL in PsA (table 3).

Discussion

This study has highlighted an important but often overlooked aspect of the management of PsA, which is the assessment of Health-Related QoL in this condition characterized by both joint and skin involvement. The evaluation of QoL was based on a specific score, the PsAQoL, validated in scientific literature, along with other nonspecific scores borrowed from other inflammatory rheumatic diseases such as the HAQ and the EUROQoL-5D.

In recent decades, a multitude of scales and QoL assessment scores have been developed to assess these major and underestimated aspects of health. These measuring instruments were initially used in therapeutic trials, and their scope has gradually expanded to encompass daily practice. It is currently accepted that QoL assessment scores represent a crucial aspect of clinical observation, allowing for more tailored therapeutic monitoring that takes into account the patient's individual experience (8).

A systematic literature review conducted by Priscilla C et al. in Hong Kong in 2012 indicated that the most commonly used measurement instruments for assessing HRQoL in PsA include the HAQ, the SF-36, the PsAQoL, the DLQI, and the EUROQoL (9).

Among the generic HRQoL assessment instruments, commonly used are the SF-36, the EuroQoL, and the HAQ. In our study, we used the latter two questionnaires.

The EUROQoL-5D has undergone numerous studies, demonstrating its validity and responsiveness in rheumatoid arthritis. Its scope of evaluation has expanded to include psoriatic arthritis. It has been successfully used to compare the utility gain of patients with rheumatoid arthritis and psoriatic arthritis treated with biologic therapies in longitudinal follow-up studies. The EUROQoL-5D has shown good discrimination and satisfactory responsiveness in psoriatic arthritis trials (8).

There are not many scores specifically designed for assessing HRQoL in psoriatic arthritis. In our study, we used the PsAQoL and the DLQI.

Ritchlin C.T. et al. noted in a systematic literature review that it is now recognized that PsA often leads to a reduction in function and an impairment of patients' QoL (10). In another systematic literature review published in 2018, it was demonstrated that PsA had a negative psychological impact on patients and influenced their QoL. The authors observed a high prevalence of anxiety and symptoms of depression, ranging from 7.9% to 36.6% (11). These findings were consistent with those of other studies (12,13).

Regarding the PsAQoL, we found an average score of 7.6 with a standard deviation of 5.7. These results were comparable to those of a cross-sectional study conducted by Merola et al., which included 439 PsA patients, where the average PsAQoL score was 9.1 with a standard deviation of 6.1 (14).

The analysis of the correlation between different scores showed that PsAQoL was significantly correlated with the HAQ (Spearman correlation coefficient = 0.73; p = 0.01) and the EUROQoL-5D, specifically its 6th question (Spearman correlation coefficient = 0.39; p = 0.05). These results were comparable to the Hungarian study by Brodszky et al., which compared the three aforementioned scores. In fact, a strong and significant correlation was found between each pair of scores (8). The same study also showed that PsAQoL was strongly correlated with BASDAI, DAS28, pain Visual Analog Scale, and patient global assessment. This correlation with commonly used variables in PsA demonstrates that this instrument is capable of effectively describing the health status in PsA.

The team led by McKenna et al., who developed and validated PsAQoL, demonstrated a very strong correlation between PsAQoL and HRQoL, Nottingham Health Profile (NHP), and overall patient assessment, with correlation coefficients exceeding 0.64. This led to the conclusion that PsAQoL is a reliable instrument for both researchers and clinicians (5).

Healy and Helliwell also reported results consistent with ours, showing through a study involving 28 patients a strong correlation between PsAQoL, HAQ, patient global assessment, and DAS28 (15).

This significant number of international studies addressing the association between the unique specific QoL assessment score in PsA and other scores borrowed from different pathologies, confirming the strong correlation between these instruments, reveals the PsAQoL's ability to effectively evaluate QoL in Psoriatic Arthritis patients.

Sex, age, and marital status were not associated with QoL assessed by PsAQoL, according to McKenna et al. in their publication on the development of PsAQoL (5). These results align with ours, as we did not

find a significant association between age, sex, and good QoL (respective p-values of 0.41 and 0.30).

It is reported in the literature that the frequency of PsA does not differ by sex (sex ratio of 1:1) (16). This observation was not seen in our sample, where there was a male predominance with a sex ratio of 2.6; this could only be explained by the fluctuation of the sample and the specific characteristics of the studied population.

Regarding the impact of comorbidities, Ritchlin et al. reported that PsA is associated with obesity, type 2 diabetes, hypertension, metabolic syndrome, hepatic steatosis, and an increased risk of cardiovascular involvement (17,18). These findings are consistent with our study, where we noted a high frequency of overweight or obese patients (60%), cardiovascular diseases (29.4%), diabetes (13.7%), and gastrointestinal/hepatic pathologies (17.6%).

Brodszky et al. revealed a weak correlation between PsAQol and the duration of the disease (correlation coefficient of 0.15), consistent with our results that concluded an association between good QoL and a more recent disease (p=0.021) (8).

Furthermore, our results did not reveal the impact of the age at the onset of the disease on patients' QoL (p=0.063). In this context, it's worth noting that PsA typically begins during the fourth decade of life (10). This is consistent with the findings of our study, where we obtained an average age of 37.7 years at the onset of the disease.

Studies have shown that, compared to psoriasis alone, PsA is associated with a worse QoL (19). In fact, according to Krueger et al., suicide was reported in approximately 10% of young patients aged 18 to 34 with psoriasis (20).

Regarding our data, we did not find a significant relationship between the absence of skin involvement and good QoL (p=0.73). Similarly, the DLQI was not associated with a deterioration in QoL (p=0.49).

Our study demonstrated that a low level of fatigue was strongly associated with good QoL (p= 0.001), with an odds ratio of 14.4 reflecting the strength of this association. A systematic literature review conducted by a Polish team in 2017 revealed that chronic fatigue is a generally underestimated manifestation in PsA and affects up to 50% of patients, with up to 25% indicating a severe degree of fatigue. A strong relationship was found in the same review between fatigue and the deterioration of QoL (21).

Limitations:

This study has some limitations. The cross-sectional design does not allow causal relationships to be established between the identified factors and quality of life. The use of self-reported questionnaires may also introduce reporting bias. Finally, some potentially relevant factors, such as psoriasis severity and psychological comorbidities, were not assessed.

Conclusion

Psoriasis is a chronic disease that can significantly impair quality of life and functional capacity. Therefore, treatment should aim for disease remission or, when not achievable, low disease activity to optimize patient outcomes. Fatigue and mental health comorbidities, particularly anxiety and depression, should be routinely assessed and managed. These considerations highlight the importance of a multidisciplinary approach involving dermatologists, rheumatologists, mental health professionals, and other healthcare providers to ensure comprehensive patient care.

Abbreviations

(BASDAI): Bath Ankylosing Spondylitis Activity Disease Index

(BASFI): Bath Ankylosing Spondylitis Functional Index

(CPDAI): Composite Psoriatic Disease Activity Index

(Cs DMARDs): Conventional synthetic Disease-Modifying Antirheumatic Drugs

(DAS28): Disease Activity Score 28

(DLQI): Dermatology Life Quality Index

(EUROQoL-5D): European Quality of Life instrument

(HAQ): Health Assessment Questionnaire

(PsA): Psoriatic arthritis

(PsAQoL): Psoriatic Arthritis Quality of Life

(QoL): Quality of life

Declarations

Clinical trial number: not applicable

Acknowledgments:

We would like to express our gratitude to the patients who participated in this study and the healthcare professionals involved in their care.

Competing Interests and Funding: No external funding from public, commercial or non-profit organizations was received to support the work presented in this article.

Disclosure of potential conflicts of interest: Authors have no conflict of interests.

Compliance with Ethical Standards:

Ethics approval: Our locally appointed ethics committee “xxxxxxx Hospital local committee” has approved the research protocol and informed consent has been obtained from the subjects.

Consent for participation: All included subjects in this work gave informed written consent for participation.

Consent for publication: not applicable.

Data availability statement:

All data from our research is available upon reasonable request.

References

1. López-Ferrer A, Laiz A, Puig L. Psoriatic arthritis. Med Clin (Barc). 8 juill 2022;159(1):40-6.
2. Ocampo D V, Gladman D. Psoriatic arthritis. F1000Res. 2019;8:F1000 Faculty Rev-1665.
3. Gladman DD, Stafford-Brady F, Chang CH, Lewandowski K, Russell ML. Longitudinal study of clinical and radiological progression in psoriatic arthritis. J Rheumatol. juin 1990;17(6):809-12.
4. Day J, Antony A, Tillett W, Coates LC. The state of the art—psoriatic arthritis outcome assessment in clinical trials and daily practice. The Lancet Rheumatology. 1 mars 2022;4(3):e220-8.
5. McKenna S, Doward L, Whalley D, Tennant A, Emery P, Veale D. Development of the PsAQoL: a quality of life instrument specific to psoriatic arthritis. Ann Rheum Dis. févr 2004;63(2):162-9.
6. Balestroni G, Bertolotti G. [EuroQol-5D (EQ-5D): an instrument for measuring quality of life]. Monaldi Arch Chest Dis. sept 2012;78(3):155-9.
7. Chandran V, Bhella S, Schentag C, Gladman DD. Functional assessment of chronic illness therapy-fatigue scale is valid in patients with psoriatic arthritis. Ann Rheum Dis. juill 2007;66(7):936-9.
8. Brodszky V, Péntek M, Bálint PV, Géher P, Hajdu O, Hodinka L, et al. Comparison of the Psoriatic Arthritis Quality of Life (PsAQoL) questionnaire, the functional status (HAQ) and utility (EQ-5D) measures in psoriatic arthritis: results from a cross-sectional survey. Scand J Rheumatol. août 2010;39(4):303-9.
9. Wong PCH, Leung YY, Li EK, Tam LS. Measuring disease activity in psoriatic arthritis. Int J Rheumatol. 2012;2012:839425.
10. Ritchlin CT, Colbert RA, Gladman DD. Psoriatic Arthritis. N Engl J Med. 9 mars 2017;376(10):957-70.
11. Gudu T, Gossec L. Quality of life in psoriatic arthritis. Expert Rev Clin Immunol. mai 2018;14(5):405-17.
12. Frede N, Hiestand S, Schauer F, Endres D, Tebartz van Elst L, Zeisbrich M, et al. Psoriasis and Psoriatic Arthritis Have a Major Impact on Quality of Life and Depressive Symptoms: A Cross-Sectional Study of 300 Patients. Rheumatol Ther. 1 déc 2023;10(6):1655-68.

13. Moraes FA, da Silva MRR, dos Santos JBR, Acurcio FA, Almeida AM, Kakehasi AM, et al. Health-Related Quality of Life in Psoriatic Arthritis: Findings and Implications. Value in Health Regional Issues. 1 déc 2021;26:135-41.
14. Merola JF, Shrom D, Eaton J, Dworkin C, Krebsbach C, Shah-Manek B, et al. Patient Perspective on the Burden of Skin and Joint Symptoms of Psoriatic Arthritis: Results of a Multi-National Patient Survey. Rheumatol Ther. 4 janv 2019;6(1):33-45.
15. Healy PJ, Helliwell PS. Psoriatic arthritis quality of life instrument: an assessment of sensitivity and response to change. J Rheumatol. juill 2008;35(7):1359-61.
16. Eder L, Thavaneswaran A, Chandran V, Gladman DD. Gender difference in disease expression, radiographic damage and disability among patients with psoriatic arthritis. Ann Rheum Dis. avr 2013;72(4):578-82.
17. Arumugam R, McHugh NJ. Mortality and causes of death in psoriatic arthritis. J Rheumatol Suppl. juill 2012;89:32-5.
18. Orbai AM, de Wit M, Mease PJ, Callis Duffin K, Elmamoun M, Tillett W, et al. Updating the Psoriatic Arthritis (PsA) Core Domain Set: A Report from the PsA Workshop at OMERACT 2016. J Rheumatol. oct 2017;44(10):1522-8.
19. Haugeberg G, Lund Nilsen TI, Kavanaugh A, Thomsen RS, Gulati AM, Hoff M. Physical and Psychosocial Burden of Psoriatic Arthritis: Longitudinal Data From a Population-Based Study in Norway. Arthritis Care Res (Hoboken). janv 2021;73(1):138-45.
20. Krueger G, Koo J, Lebwohl M, Menter A, Stern RS, Rolstad T. The impact of psoriasis on quality of life: results of a 1998 National Psoriasis Foundation patient-membership survey. Arch Dermatol. mars 2001;137(3):280-4.
21. Krajewska-Włodarczyk M, Owczarczyk-Saczonek A, Placek W. Fatigue - an underestimated symptom in psoriatic arthritis. Reumatologia. 2017;55(3):125-30.

Tables

Table 1: Baseline characteristics of patients

Characteristic	Value
Demographic characteristics	
Age, mean ± SD (years)	52.5 ± 12
Male sex, n (%)	29 (72.5)
Overweight/obesity, n (%)	20 (50)
Comorbidities, n (%)	29 (72.5)
PsA characteristics	
Family history of SpA and/or psoriasis, n (%)	11 (27.5)
Disease duration, mean ± SD (years)	14,9 (11,0)
Pure axial PsA, n (%)	2 (5)
Peripheral PsA, n (%)	35 (87.5)
Mixed PsA, n (%)	33 (82.5)
Coxopathy, n (%)	12 (30)
Clinical enthesitis, n (%)	23 (57.5)
LEI >1 site affected, n (%)	20 (50.0)
LEI >3 sites affected, n (%)	10 (25.0)
History of dactylitis, n (%)	13 (32.5)
Current dactylitis, n (%)	5 (12.5)
Extra-articular manifestations, n (%)	13 (32.5)
Psoriatic involvement	
Cutaneous psoriasis, n (%)	27 (67.5)
Nail psoriasis, n (%)	14 (35.0)
PsA without psoriasis, n (%)	5 (12.5)
Duration of psoriasis, mean ± SD (months)	108.1 ± 95
Plaque psoriasis, n (%)*	23 (65.7)
Seborrheic psoriasis, n (%)*	19 (54.5)
Pustular psoriasis, n (%)*	3 (8.6)
Laboratory findings	
Elevated ESR, n (%)	30 (75.0)

Characteristic	Value
Elevated CRP, n (%)	29 (72.5)
Biological inflammatory syndrome, n (%)	31 (77.5)
Radiological findings	
Sacroiliitis, n (%)	27 (67.5)
Coxitis, n (%)	12 (30.0)
Axial radiographic involvement, n (%)	34 (85.0)
Finger/toe radiographic involvement, n (%)	~20 (50.0)
Disease activity and functional assessment	
Morning stiffness duration, mean (min)	25
Painful joints, mean number	10
Swollen joints, mean number	3
CPDAI ≥4, n (%)	32 (80.0)
BASDAI ≥4, n (%)	16 (40.0)
Moderate/high disease activity (DAS28), n (%)	30 (75.0)
BASFI ≥4, n (%)	14 (35.0)
Quality of life and fatigue	
Good QoL (PsAQoL <9), n (%)	25 (62.5)
HAQ <1, n (%)	27 (67.5)
FACIT-Fatigue >30, n (%)	25 (62.5)
Treatment characteristics	
csDMARD therapy, n (%)	33 (82.5)
Methotrexate use, n (%)†	28 (84.8)
Biologic therapy (anti-TNFα), n (%)	15 (37.5)
Corticosteroid use, n (%)	14 (35.0)
Dermatological treatment among patients with psoriasis, n (%)*	33 (94.2)
Topical corticosteroids, n (%)*	32 (91.4)

Abbreviations: PsA, psoriatic arthritis; SpA, spondyloarthritis; LEI, Leeds Enthesitis Index; ESR, erythrocyte sedimentation rate; CRP, C-reactive protein; CPDAI, Composite Psoriatic Disease Activity

Index; BASDAI, Bath Ankylosing Spondylitis Disease Activity Index; BASFI, Bath Ankylosing Spondylitis Functional Index; DAS28, Disease Activity Score 28; HAQ, Health Assessment Questionnaire; PsAQoL, Psoriatic Arthritis Quality of Life; FACIT, Functional Assessment of Chronic Illness Therapy; csDMARD, conventional synthetic disease-modifying antirheumatic drug.

* Calculated among patients with cutaneous psoriasis (n = 35).

† Percentage calculated among patients receiving csDMARDs (n = 33).

Table 2: Factors associated with good QoL in patients with PsA

A. Association between qualitative variables and good quality of life

Variables	Categories	Good QoL (%)	OR	95% CI	p value*
Sex	Male	69.	2.7	[0.6 – 11.1]	0.30
	Female	45.5			
Comorbidities	Absent	75	2.1	[0.4 – 11.8]	0.70
	Present	59.4			
Enthesitic involvement	LEI = 0	64.7	1.2	[0.3 – 4.3]	1.00
	LEI ≥1	60.9			
Biological inflammatory syndrome	Absent	66.7	1.3	[0.7 – 6.0]	1.00
	Present	61.3			
Extra-articular manifestations	Absent	74.1	4.6	[1.1 – 18.7]	0.041**
	Present	38.5			
Coxitis	Absent	64.3	1.3	[0.3 – 5.1]	0.736
	Present	58.3			
Radiographic finger/toe involvement (CRDO)	CRDO = 0	78.9	4.1	[1.02 – 16.6]	0.041**
	CRDO ≥1	47.6			
Clinical phenotype	Axial or peripheral	71.4	1.6	[0.3 – 9.7]	0.70
	Mixed	60.6			
Psoriasis involvement	Absent	69.2	1.57	[0.38 – 6.31]	0.73
	Present	59.3			
DLQI	DLQI = 0	53.8	0.58	[0.15 – 2.25]	0.49
	DLQI ≥1	66.7			
Fatigue	FACIT-F ≥30	84	14.4	[3.0 – 69.1]	0.001**
	FACIT-F <30	26.7			

Variables	Categories	Good QoL (%)	OR	95% CI	p value*
Disease activity (CPDAI)	Remission/low activity	100	1.9	[1.3 – 2.6]	0.016**
	Moderate/high activity	53.1			
Disease activity (BASDAI)	BASDAI <4	83.3	11.0	[2.4 – 49.6]	0.002**
	BASDAI ≥4	31.2			
Functional impairment (BASFI)	BASFI <4	80.8	10.5	[2.3 – 47.8]	0.002**
	BASFI ≥4	28.6			

* Fisher's exact test

** Statistically significant association (p ≤ 0.05)

B. Association between quantitative variables and good quality of life

Variables	Good QoL Median [Q25–Q75]	Poor QoL Median [Q25–Q75]	p value*
Age (years)	56 [43.5–61.5]	53 [46–57]	0.41
Age at disease onset (years)	38 [29.5–53]	36 [20–42]	0.063
Disease duration (years)	9 [5–18.5]	17 [12–27]	0.023**
Morning stiffness duration (min)	10 [0–30]	20 [15–60]	0.07
Number of nocturnal awakenings	1 [0–1]	2 [0–6]	0.01**
Number of tender joints	4 [2–9]	6 [1–27]	0.30
Number of swollen joints	1 [0–3]	2 [0–3]	0.52
Pain VAS	40 [30–60]	60 [40–80]	0.027**

OR: odds ratio; CI: confidence interval; LEI: Leeds Enthesitis Index; CRDO: radiographic involvement of fingers and/or toes; DLQI: Dermatology Life Quality Index; FACIT-F: Functional Assessment of Chronic Illness Therapy–Fatigue Scale; CPDAI: Composite Psoriatic Disease Activity Index; BASDAI: Bath Ankylosing Spondylitis Disease Activity Index; BASFI: Bath Ankylosing Spondylitis Functional Index; QoL: quality of life; PsA: Psoriatic Arthritis; VAS: Visual Analogue Scale.

* Mann–Whitney U test

** Statistically significant association (p ≤ 0.05)

Table 3. Multivariate analysis of factors associated with good QoL in patients with PsA

Variable	Univariate analysis p value	Multivariate analysis p value
CPDAI	0.016	0.999
FACIT-F score	0.001	0.021**
Extra-articular manifestations	0.041	0.981
Disease duration	0.023	0.047**
Number of nocturnal awakenings	0.010	0.140

PsA: psoriatic arthritis; QoL: quality of life; CPDAI: Composite Psoriatic Disease Activity Index; FACIT-F: Functional Assessment of Chronic Illness Therapy–Fatigue Scale

** Statistically significant association (p ≤ 0.05)