PROFILE OF PSORIATIC ARTHRITIS PATIENTS IN THE DERMATOLOGY AND VENEREOLOGY CLINIC AT RSUP PROF. I.G.N.G. NGOERAH DENPASAR FOR THE PERIOD OF 2021-2023

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ABSTRACT

Psoriatic arthritis (PsA) presents a significant challenge due to its high prevalence and morbidity rates. Psoriasis vulgaris affects an estimated 0.19-2% of the global population, with approximately 30% of these individuals progressing to experience psoriatic arthritis. Methods: This is a retrospective study using medical records of psoriatic arthritis patients at the Dermatology and Venereology Clinic. Result and Discussion: A total of 168 psoriasis patients were assessed at the Dermatology and Venereology Clinic of Prof. I.G.N.G Ngoerah Hospital from 2021 to 2023. Among them, 58 cases were also diagnosed with Psoriatic Arthritis (PsA), accounting for 35.1% of the sample. Of these, 33 patients were male (67.3%) and 16 were female (32.7%). The highest prevalence was observed in the 40-59 age group (51%). Additionally, 77.5% of patients had a Body Surface Area (BSA) greater than 10%, 61.2% had a Psoriasis Area Severity Index (PASI) score of severe psoriasis (>10), and 49.0% had a Dermatology Life Quality Index (DLQI) score indicating moderate impact (6-10). Similarly, 49.0% of patients had a moderate Disease Activity Index for Psoriatic Arthritis (DAPSA) score (>4-14). The study revealed a PsA prevalence of 35.1%, which surpasses global averages, likely due to the hospital's role as a tertiary referral center for severe psoriasis cases. Conclusion: The prevalence of Psoriatic Arthritis (PsA) among patients treated is still high, particularly among male patients aged 40-59 years who have severe psoriasis based on BSA (Body Surface Area), PASI (Psoriasis Area Severity Index), and DLQI (Dermatology Life Quality Index) criteria.

KEYWORDS	*Psoriasis, arthritis, BSA, PASI, DLQI, DAPSA*

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INTRODUCTION

Psoriasis is an autoimmune disease that primarily manifests on the skin and can complicate other organs. Psoriasis is suspected to have a genetic predisposition and can be triggered by various factors such as trauma, infection, or medications. Psoriasis vulgaris is the most common form, typically causing red plaques with thick scales on the scalp, extremities, and nails, and can have complications in other organs, such as psoriatic arthritis. The prevalence of psoriasis vulgaris patients developing psoriatic arthritis is estimated to be around 19.7% of psoriasis patients (Ljubenovic et al., 2018; Ogdie et al., 2020). Psoriatic arthritis is reported to be associated with other comorbidities, such as obesity, metabolic diseases, depression, and anxiety, which can influence the choice and effectiveness of treatment given to patients. The complex manifestations of psoriatic arthritis and its involvement of non-specific symptoms make diagnosis and management challenging, increasing the impact of psoriatic arthritis. Therefore, early diagnosis, accurate assessment of severity, and initiation of the most appropriate management are essential to reduce the impact of psoriatic arthritis (Raychaudhuri et al., 2017).

RESEARCH METHOD

The chronic course of psoriasis significantly impacts patients' quality of life, including psychosocial aspects. One of the main daily stressors for patients with psoriasis is avoidance and denial of the disease. Additionally, patients with lesions in functional areas such as the face, palms, and soles, or even the genital area, report higher morbidity. Compared to the general population, psoriasis patients are prone to depression, which can lead to suicidal thoughts and attempts (Griffiths et al., 2021). However, disease recurrence related to the chronic nature of psoriasis can be prevented by evaluating the general picture of case numbers, triggering factors, and patient management outcomes. Besides the psychosocial burden, psoriasis also imposes a significant economic burden on both patients and the country (Brezinski et al., 2015). In the United States, up to 63 million dollars (approximately 900 billion rupiahs) are spent annually on managing psoriasis (Damayanti, 2018). A similar study in Malaysia reported that an individual spends up to 1,300 Malaysian ringgits (about 4.3 million rupiahs) annually on psoriasis, not including self-medication without a doctor's instruction. If a psoriasis patient develops psoriatic arthritis, the economic burden will inevitably be heavier (Tang et al., 2013). For these reasons, it is important to describe the profile of psoriatic arthritis in patients with psoriasis vulgaris to better understand demographic and disease patterns and to minimize the psychosocial and economic impacts.

RESULT AND DISCUSSION

In this study, 168 psoriasis vulgaris patients were recorded at RSUP Prof I.G.N.G. Ngoerah during the period of 2021-2023, with 58 (35.1%) also having PsA. During this study period, 58 samples were obtained, but 9 samples were

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excluded due to incomplete data, leaving 49 samples for this study. Based on gender, 33 patients (67.3%) were male and 16 patients (32.7%) were female. The distribution of patients by age group showed that 14 patients (28.6%) were aged 18-39 years, 25 patients (51.0%) were aged 40-59 years, and 10 patients (20.4%) were aged ≥60 years.

Table 1: Sociodemographic and Clinical Characteristics of Psoriatic Arthritis Patients

Variable	n(%) / ± SB	Variable	n(%) / ± SB
Gender:		**Score PASI:**	
Male	**33 (67,3)**	≤5 (mild)	**7 (14,3)**
Female	**16 (32,7)**	5-10 (moderate)	**12 (24,5)**
Age Group		>10 (severe)	**30 (61,2)**
18-39 year	**14 (28,6)**	**Skor DLQI**	
40-59 year	**25 (51,0)**	0-1 (No impact)	**6 (12.2)**
		2-5 (Mild impact)	**8(16.3)**
≥60 year	**10 (20,4)**	6-10 (Medium impact)	**17 (34.7)**
Score BSA:		11-20 (Heavy impact)	**15 (30.6)**
		21-30 (Huge Impact)	**3 (6.1)**
< 5 % (mild)	**6 (12,2)**	**Score DAPSA**	
5%-10% (moderate)	**5 (10,2)**	≤4 (REM)	**12 (24,5)**
> 10% (severe)	**38 (77,5)**	5-14 (LDA)	**24 (49,0)**
		15-28 (MDA)	**8 (16,3)**
		>28 (HDA)	**5(10,2)**

Based on this study, psoriatic arthritis was found in psoriasis vulgaris patients with Body Surface Area (BSA) assessing the affected body surface area with mild severity (BSA <5%) in 6 patients (12.2%), moderate severity (BSA 5-10%) in 5 patients (10.2%), and severe severity (BSA >10%) in 38 patients (77.5%). The Psoriasis Area and Severity Index (PASI) score for PsA patients showed mild severity (PASI <5) in 10 patients (19.2%), moderate severity (PASI 5-10) in 9 patients (38.5%), and severe severity (PASI >10) in 30 patients (42.3%). The Dermatology Life Quality Index (DLQI) score, which assesses the disease's impact on quality of life, found no impact (0-1) in 6 patients (12.2%), mild impact (2-5) in 8 patients (16.3%), moderate impact (6-10) in 17 patients (34.7%), severe impact (11-20) in 15 patients (30.6%), and very severe impact (21-30) in 3 patients (6.1%).

The Disease Activity in Psoriatic Arthritis (DAPSA) score was used to assess PsA activity based on joint problems experienced by patients. Psoriatic arthritis patients had DAPSA scores of remission/REM (<4) in 12 patients (24.5%), low disease activity/LDA (4-14) in 24 patients (49.0%), moderate disease activity/MDA (14-28) in 8 patients (16.3%), and high disease activity/HDA (>28) in 5 patients (10.2%).

Discussion

This study found that the percentage of PsA occurrence in psoriasis vulgaris patients was 35.1%. This percentage is higher than the study by Alinaghi et al.,

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which concluded from 266 studies conducted between 1978-2017, examining 976,408 psoriasis patients, that the prevalence of PsA was 23.8%. This figure is lower than the global PsA prevalence of 30%, due to the studies being conducted in developed countries where the prevalence is lower. This could be due to RSUP Prof I.G.N.G. Ngoerah being the highest regional referral center, thus attracting more patients with moderate to severe psoriasis, contributing to the high prevalence of psoriatic arthritis among psoriasis vulgaris patients at RSUP Prof I.G.N.G. Ngoerah (Alinaghi et al., 2019).

In this study, psoriatic arthritis was more prevalent in males than females. Psoriasis cases are more common in males, but the impact, function, and activity of the disease tend to be more severe in females (Lubrano et al., 2023). A study by Hamgard et al. showed that males had significantly higher median PASI scores (7.3) compared to females (5.4) with $p<0.001$, consistent across all age groups (Hamgård et al., 2023).

This study found that the age group most affected by psoriatic arthritis was 40-59 years. This aligns with a study by Karmacharya et al., showing that the mean age of PsA patients was 46.4 years, with the largest population being in the 40-69 years age group (Karmacharya et al., 2021).

This study found that BSA and PASI scores in PsA patients were predominantly in the severe category, with BSA >10% in 38 patients (77.5%) and PASI >10 in 53 patients (34%). A 2021 study by Ogdie et al. showed that among 9096 confirmed psoriasis samples, 637 had PsA. The study identified risk factors including BSA >10% (HR 2.01, 95% CI: 1.29, 3.13) and BSA 3-10% (HR 1.64, 95% CI: 1.19, 2.26) for PsA cases (Ogdie et al., 2020).

This study found that the DLQI score of psoriatic arthritis patients was predominantly in the severe category, with 49.0% in the severe category, followed by 22.4% in the moderate category, and 22.6% in the mild category. A study by Gamonal et al. found that the majority of psoriatic arthritis patients had severe psoriasis, with 73 patients (24.3%) out of 300 samples. The percentage of psoriatic arthritis patients with high DLQI was 58.9%, 20.5% with moderate DLQI, and 5.4% with low DLQI. A 2024 study by Tatjana et al. found that among 1158 samples, the median DLQI score was 10.5, falling into the severe category (Gamonal et al., 2021).

This study found that the DAPSA score of psoriatic arthritis patients was predominantly in the low disease activity (LDA) category, with 49.0%, followed by remission (REM) with 24.5%, moderate disease activity (MDA) with 16.3%, and high disease activity (HDA) with 10.2%. This classification uses the same classification as the study by Schneeberger et al (2015). The lower DAPSA scores are likely due to the majority of patients having received prior therapy.

CONCLUSION

Psoriatic arthritis (PsA) cases at RSUP Prof I.G.N.G. Ngoerah remain high. PsA is more commonly found in male patients and those aged 40-59 years. Psoriatic arthritis is more frequently found in severe psoriasis, with a greater impact on quality of life. The average severity of arthritis is higher in more severe psoriasis.

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Further studies, such as case-control studies, are needed to determine other risk factors for psoriatic arthritis.

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