

RESEARCH ARTICLE

ASSESSING DISEASE SEVERITY AND QUALITY OF LIFE IN PSORIASIS PATIENTS: A COMPREHENSIVE STUDY

Dr. B. Anoosha, Shagufta Banu, Syeda Tarannum, Syed Alia Tabassum and Nishat Taskeen Department of Clinical Pharmacy Practice, Vaageswari College of Pharmacy, Telangana-India.

Manuscript Info

Abstract

Manuscript History Received: 28 July 2023 Final Accepted: 31 August 2023 Published: September 2023

Psoriasis, a common and chronic non-contagious skin condition, presents as red, scaly, and itchy patches that significantly impact patients' lives. This hospital-based prospective observational study, spanning six months in the outpatient department, aimed to assess disease severity and its effect on quality of life among psoriasis patients. Disease severity was determined using the Psoriasis Area and Severity Index (PASI) scale, while the Dermatological Life Quality Index Scale (DLQI) measured its impact on daily functioning. Of the 110 patients screened, the 36-55 age group dominated, representing individuals aged 15 to 56 and above. Gender distribution revealed 60.9% males and 39.1% females, with males predominantly affected, particularly by chronic plaque psoriasis and Palmoplantar psoriasis. PASI assessments indicated that 39.0% of patients suffered from severe disease, while DLQI assessments revealed moderate quality of life impact in 50.9% of cases. In summary, this study identified age, gender, disease duration, and psoriasis type as significant determinants of patients' experiences in the dermatological department. Importantly, a clear association emerged between disease severity and decreased quality of life, influenced by various contributing factors. These findings underscore the importance of comprehensive care and support. acknowledging the multifaceted nature of psoriasis management to enhance overall patient well-being.

.....

Copy Right, IJAR, 2023,. All rights reserved.

Introduction:-

Psoriasis is a chronic inflammatory skin condition affecting millions of individuals worldwide. This multifaceted disorder not only presents a significant physical burden but can also have a profound impact on the emotional and psychological well-being of those afflicted. To comprehensively address the complex nature of psoriasis, this study seeks to investigate several critical aspects of the disease, including disease severity, quality of life (QOL) assessment, and potential sex-based differences in disease manifestation. Furthermore, the study aims to shed light on the QOL of patients employing alternative therapies as part of their treatment regimen.

Determining Disease Severity Using PASI (Psoriasis Area and Severity Index):

Disease severity is a fundamental parameter in understanding the clinical presentation of psoriasis. The Psoriasis Area and Severity Index (PASI) is a widely recognized tool for assessing the extent and severity of psoriatic lesions on the skin. By employing PASI, we aim to provide an accurate and standardized measure of disease severity among

Corresponding Author:- Dr. B. Anoosha Address:- Department of Clinical Pharmacy Practice, Vaageswari College of Pharmacy, Telangana-India. our study participants. This will not only enhance our understanding of the spectrum of disease severity within our cohort but also serve as a valuable baseline for tracking the efficacy of various treatment modalities.

Assessing Quality of Life Using DLQI (Dermatology Life Quality Index) in Psoriasis Patients:

Beyond its physical manifestations, psoriasis can profoundly impact an individual's QOL. The Dermatology Life Quality Index (DLQI) is a validated instrument designed to evaluate the impact of skin diseases on a patient's daily life, including factors such as social interactions, emotional well-being, and self-esteem. By administering DLQI assessments to our study participants, we intend to gain insights into the broader impact of psoriasis on their lives, thereby facilitating a holistic approach to patient care and treatment planning.

Determining Sex-Based Differences in Psoriasis Severity:

Emerging evidence suggests that psoriasis may manifest differently in males and females, raising questions about potential sex-based differences in disease severity. This aspect of our study seeks to explore whether such differences exist within our patient population, providing valuable insights into the epidemiology and clinical presentation of psoriasis, as well as informing tailored treatment strategies.

Assessment of QOL Among Patients Employing Alternative Therapies:

Complementary and alternative therapies have gained popularity among psoriasis patients seeking alternative approaches to manage their condition. As part of our investigation, we aim to evaluate the QOL of patients who have chosen alternative therapies alongside or in place of conventional treatments. This exploration will contribute to a comprehensive understanding of the diverse treatment landscape and patient preferences in psoriasis management.

Methodology:-

In this prospective hospital-based study, conducted at the Chalmeda Ananda Rao Institute of Medical Sciences located in Karimnagar, India, we embarked on a comprehensive research endeavor spanning a duration of six months. The study was conducted within the outpatient department of the hospital, focusing on a carefully selected sample size of 110 participants. This research design allowed us to observe and collect data directly from patients seeking medical care at this institution, providing valuable insights into the specific healthcare challenges and clinical phenomena prevalent in this local context. The chosen sample size was determined to be representative of the target population and was instrumental in facilitating a robust and informative analysis of the healthcare-related variables under investigation.

Study site	Study design	Study duration	Sample size
Chalmeda Ananda Rao	A hospital based	6 months.	110 individuals.
Institute of Medical	prospective study.		
Sciences, Karimnagar.			

Study criteria:

- Inclusion criteria:
- Patient diagnosed for psoriasis.
- Patients of 15 and above are included.
- Both males and female patients are considered.

> Exclusion criteria:

- Paediatrics.
- Pregnant and lactating women.
- Psychiatric patients.
- Patients who are not willing to give consent.

Study Procedure:

The study followed a structured procedure to investigate psoriasis patients' disease severity and its impact on their quality of life over a period of six months. The study was initiated after obtaining ethical approval from the Institutional Review Board (IRB) and approval from the hospital's head. Patients meeting the predefined criteria

were identified by reviewing their medical records during the study period, and their data was meticulously documented in a pre-designed data collection form.

Subsequently, the study was conducted within the dermatological outpatient department, where patients and their representatives were engaged in the research process. Data collection involved comprehensive communication and interviews with patients. Additionally, data pertaining to patients' prescriptions, filled by healthcare professionals such as doctors, nurses, and pharmacists, were recorded.

Ensuring utmost confidentiality, every detail collected from the patients remained private and secure throughout the study. The study encompassed all types of psoriasis patients visiting the hospital, with follow-up data collected during their regular check-ups. Patient information, including family history, socio-demographic details, and medication usage, was obtained through standardized questionnaires.

To assess disease severity and the quality of life of patients, two key scales were employed: the Psoriasis Area Severity Index (PASI) and the Dermatology Life Quality Index (DLQI). The PASI score was calculated based on visual records, considering erythema, inducation, and scaling across four body areas (head, arms, trunk, and legs). Scores ranged from 0 to a theoretical maximum of 72, with scores between 5 and 10 indicating moderate disease and scores above 10 indicating severe disease.

For quality of life assessment, the DLQI scale, designed for patients above 16 years of age, was utilized. This scale comprised 10 multiple-choice questions relating to quality of life and emotional experiences in the presence of the skin disease. Each response was scored on a 4-point like-type scale, with a total DLQI score ranging from 0 to 30. These scores were categorized as follows: 0-5 (no effect on quality of life), 6-10 (small effect), 11-20 (moderate effect), and 21-30 (very large to extremely large effect).

Results:-

A total of 110 patients with various types of psoriasis were enrolled in the study at the dermatological department.

S.NO	AGE	NO.OF PATIENTS	PERCENTAGE (%)	
1	15 - 35	26	23.63	
2	36 - 55	48	43.63	
3	56 and above	36	32.7	

Age wise distribution of patients

In our study, we screened 110 cases for skin related problem (psoriasis). Out of 110 patients 26 (23.63%) patients were under the age groups 15 - 35 ,48 (43.63%) in age groups 36 - 55 and 36 (32.7%) under the age groups 56 and above.



Age wise distribution of patients

Gender wise distribution of patients:

S.NO	GENDER	NO.OF PATIENTS	PERCENTAGE (%)
1	Male	67	60.9
2	Female	43	39.1

In this study, we screened 110 individuals for psoriasis skin disease. Out of 110 patients 67 (60.9%) were Male and 43 (39.1%) were Females.



Gender wise distribution of patients

Duration of disease wise distribution of patients:

S.NO	DURATION OF DISEASE	NO.OF PATIENTS	PERCENTAGE (%)
1	0 - 11 months	20	18.1
2	1-6 years	73	66.3
3	7-12 years	17	15.4

Out of 110 patients, 20(18.1%) patients were found to have duration of disease of 0 - 11 months, 73 (66.3%) patients were in between 1 - 6 years of duration and 17 (15.4%) were in between 7 - 12 years duration.



Distribution of data according to types of psoriasis:

S.NO	TYPES OF PSORIASIS	NO.OF PATIENTS	PERCENTAGE (%)
1	Psoriasis vulgaris	30	27.2
2	Palmoplantar psoriasis	26	23.6
3	Pustular psoriasis	2	1.81
4	Scalp psoriasis	9	8.18

5	Guttate psoriasis	3	2.72
6	Chronic plaque psoriasis	27	24.5
7	Genital psoriasis	1	0.90
8	Plantar psoriasis	3	2.72
9	Psoriasis vulgaris+scalp psoriasis	2	1.81
10	Palmoplantar psoriasis +	5	4.54
	scalp psoriasis		
11	Chronic plaque psoriasis+ scalp psoriasis	2	1.81

out of 110 patients, autoimmune skin disease (psoriasis) have been found to be 30 (27.2%) as Psoriasis vulgaris,26 (23.6%) as Palmoplantar psoriasis, 2 (1.81%) as Pustular psoriasis, 9 (8.18%) as scalp psoriasis, 3 (2.72%) as guttate psoriasis, 27 (24.5%) as chronic plaque psoriasis, 1 (0.90%) as genital psoriasis, 3 (2.72%) as Plantar psoriasis, 2 (1.81%) as Psoriasis vulgaris and scalp psoriasis, 5 (4.54%) as Palmoplantar psoriasis, 2 (91.81%) as chronic plaque psoriasis.



Distribution of data according to types of psoriasis

Assessment of severity o	psoriasis	patients using	Psoriasis Area	a and Severity	Index (PASI):
--------------------------	-----------	----------------	----------------	----------------	---------------

S.NO	SEVERITY(PASI)	NUMBER OF PATIENTS	PERCENTAGE OF PATIENT (%)
1	Mild	40	36.3

2	Moderate	27	24.5
3	Severe	43	39.0

In our study involving a sample of 110 individuals, the assessment of disease severity using PASI revealed that approximately 40 individuals (36.4%) were characterized as having mild disease, 27 (24.5%) as moderate, and 43 (39.0%) as severe.



Assessment of severity of psoriasis patients using PASI

Impact of psoriasis disease using DLQI or Assessment of Dermatological Life Quality Index(DLQI):

S.NO	Severity(DLQI)	Number of patients	Percentage of patients
			(%)
1	No effect	5	4.5
2	Small effect	11	10
3	Moderate	56	50.9
4	Very large	38	34.5
5	Extremely large	3	2.7

The study shows that severity of psoriasis for the number of patients percentage as no effect of 4.5%, small effect of 10%, moderate effect of 50.9%, very large of 34.5%, extremely large of 2.7% among this moderate effect was showing more percentage we can conclude that impaired quality of life on patients.



Impact of psoriasis disease using DLQI

Distribution of severity (PASI) according to age:

S.NO	AGE	MILD	MODERATE	SEVERE
1	15 - 35 (n = 26)	7 (26.9%)	7 (26.9%)	12 (46.1%)
2	36 - 55 (n = 21)	21 (43.7%)	8 (16.6%)	19 (39.5%)
3	56 above	12 (33.35%)	12 (33.3%)	12 (33.3%)
	(n = 36)			

In our study with patients 110, age wise characterization of severity (PASI) for the age groups 15 - 35 years severity as mild 26.9%, moderate 26.9%, severe 46.1%. Age groups 36 - 55 years severity as mild 43.7%, moderate 16.6% and severe 39.5%. Age groups of 56 and above severity as mild 33.3%, moderate 33.3%, severe 33.3%.



Distribution of	of severity	(PASI)	according	to	age
-----------------	-------------	--------	-----------	----	-----

Distributior	of severity	(PASI)	according to Gender:
--------------	-------------	--------	----------------------

S.NO	GENDER	MILD	MODERATE	SEVERE
1	Male (n=57)	22 (32.8%)	17 (25.37%)	28(41.7%)
2	Female(n=43)	18 (41.8%)	9 (20.9%)	16(37.2%)

In our study of 110 patients severity differences in male (n = 57) are mild 22 (32.85), moderate 17 (25.37%), severe 28 (41.7%) and in female (n = 43) are mild 18 (41.8%), moderate 9 (20.9%) and severe 16 (37.2%).



Distribution of severity (PASI) according to Gend

Distribution of severity (PASI) according to duration of disease:

S.NO	DURATION OF	MILD	MODERATE	SEVERE
	DISEASE			
1	0-11	10(50%)	3 (15%)	7 (35%)
	Months(n=20)			
2	1 - 6 Year	22(30.1%)	19 (26.02%)	32 (43.8%)
	(n=73)			
3	7 - 12 Years	8(47.5)	4 (23.5%)	5 (29.4%)
	(n=17)			

In our study, with 110 cases the duration of disease is 0 - 11 months with severity mild 10 (50%), moderate 3 (15%), severe 7 (35%), for the duration of 1 - 6 years the severity was mild 22 (30.1%),moderate 19 (26.02%), severe 32 (43.8%),and disease duration of 7 - 12 years severity was mild 8 (47.5%), moderate 4 (23.5%) and severe 5 (29.4%).



Distribution of severity (PASI) according to duration of disease

Distribution of severity (PASI) according to types of psoriasis:							
S.NO	TYPES OF	MILD	MODERATE	SEVERE			
	PSORIASIS						
1	Psoriasis vulgaris	5 (16.6%)	9 (30%)	16 (53%)			
2	Palmoplantar	13 (50%)	7 (26.9%)	6 (23%)			
	psoriasis						
3	Pustular psoriasis	0	1 (50%)	1 (50%)			
4	Scalp psoriasis	7 (77%)	0	2 (22%)			
5	Guttate psoriasis	1 (33.33%)	0	2 (66.6%)			
6	Chronic plaque	7 (25.9%)	7 (25.9%)	13 (48.14%)			
	psoriasis						
7	Genital psoriasis	0	0	1 (100%)			
8	Plantar psoriasis	1 (33.35%)	2 (66.6%)	0			
9	Psoriasis	2 (100%)	0	0			
	vulgaris+scalp						
	psoriasis						
10	Palmoplantar	3 (60%)	0	2 (40%)			
	psoriasis +						
	scalp psoriasis						
11	Chronic plaque	1 (50%)	1 (50%)	0			
	psoriasis+scalp						
	psoriasis						
1	1						

In the study, we screened 110 cases for skin-related psoriasis, and it was observed that the Quality of Life of patients was significantly affected in Chronic Plaque Psoriasis and Psoriasis Vulgaris



Distribution of severity (PASI) according to types of psoriasis

S.no	Age	No effect	Small effect	Moderate	Very large effect	Extremely large effect
1	15 -35	1(3.84%)	2(7.69%)	13(50%)	9(34.6%)	1 (3.84%)
2	36-55	1(2.08%)	6(12.5%)	2.9(60.4%)	11(22.9%)	1(2.08%)
3	56 and above	3(8.3%)	2(5.55%)	16(33.33%)	14(38.8%)	1 (2.77%)

Distribution of quality of life (DLQI) according to age:

In our study, a sample size of 110 participants was screened, and it was found that the quality of life was most significantly affected in the age group between 36 and 55, with a moderate effect observed in 60.4% of cases



Distribution of quality of life (DLQI) according to age

S.NO	GENDER	NO FFFFCT	SMALL	MODERATE	VERY	EXTREMELY
		EFFECI	EFFECI		LAKGE	LAKGE
1	Male	4(5.9%)	8(11.9%)	33(49.25%)	21(31.3%)	1(1.49%)
2	Female	1(2.32%)	3(6.97%)	24(55.8%)	13(30.2%)	2(4.65%)

Distribution of quality of life (DLQI) according to Gender:

Among the 110 patients screened, it was observed that the quality of life was most significantly affected in females, with a moderate effect observed in 55.8% of cases.



Distribution of quality of life (DLQI) according to Gender

Distributior	of Quality	of life (DLQI)	according	to duration	of disease:
--------------	------------	----------------	-----------	-------------	-------------

S.no	Duration of disease	No effect	Small effect	Moderate effect	Very large	Extremely large
1	0 - 11 Months (n = 21)	1 (4.76%)	4(19.0%)	9(42.8%)	6(28.57%)	1(4.76%)
2	1-6 years (n=74)	1(1.35%)	6(8.10%)	45(60.8%)	21(28.3%)	1(1.35%)
3	7-12 years(n=15)	3(20%)	1(6.66%)	4(26.6%)	6(40%)	1(6.66%)

In the sample of 110 patients, the distribution of quality of life in accordance with the duration of the disease showed that in the group with a disease duration of 1 - 6 years (n = 74), a moderate effect was observed in 60.8% of cases



Distribution of Quality of life (DLQI) according to duration of disease

Distribution of quality of life (DLQI) according to types of psoriasis:

S.No	Types Of	No Effect	Small	Moderate	Very	Extremely
	Psoriasis		Effect	Effect	Large	Large
1	Psoriasis vulgaris (n = 29)	0	2(6.89%)	16(55.1%)	11(37.9%)	0
2	Palmoplantar psoriasis (n = 32)	2(6.25%)	1(3.12%)	24(75%)	4(12.5%)	1(3.12%)
3	Pustular psoriasis $(n = 2)$	0	0	2(100%)	0	0
4	Scalp psoriasis $(n = 8)$	1(12.5%)	0	5(62.5%)	2(25%)	0
5	Guttate psoriasis $(n = 3)$	0	1(33.3%)	1(33.3%)	1(33.3%)	0
6	Chronic plaque psoriasis (n = 27)	2(7.40%)	3(11.11%)	11(40.7%)	9(33.3%)	2(7.4%)
7	Genital psoriasis $(n = 1)$	0	0	0	0	0
8	Plantar psoriasis $(n = 2)$	0	2(100%)	0	1(50%)	0
9	Psoriasis vulgaris+scalp psoriasis (N = 2)	0	1(50%)	0	3(60%)	0
10	Palmoplantar psoriasis +	0	1(20%)	1(20%)	1(50%)	0

	scalp psoriasis $(n = 5)$					
11	Chronic plaque psoriasis+ scalp psoriasis(n=2)	0	0	1 (50%)	0	0

Among the sample of 110 individuals, it was observed that the quality of life was most significantly affected by chronic plaque psoriasis and palmoplantar psoriasis



Distribution of quality of life (DLQI) according to types of psoriasis

Conclusion:-

In summary, psoriasis, a chronic inflammatory disease with no cure, can affect individuals of all ages and genders. It often manifests most prominently in males aged 20-35 and females aged 40-59. Disease severity can worsen due to various factors, including environmental, mechanical, and genetic influences. While treatments can alleviate symptoms, psoriasis typically requires long-term management, emphasizing the importance of effective self-care. Our study revealed that individuals aged 36-55 comprised the majority of patients (43.63%), with the most significant age-related severity occurring in the 15-35 age group (46.1%). Males were more commonly affected (60.9%) than females (39.1%), with chronic plaque psoriasis, Palmoplantar psoriasis, and psoriasis vulgaris being

the most frequent types observed. Disease remission, which can last from 1 to 12 months or more, is possible but not guaranteed. The study also found that a higher disease duration was observed in the 1-6 year range. Severity, assessed using the PASI scale, was most pronounced in the 36-55 age group (39.5%) and among males (41.7%), particularly in cases of chronic plaque psoriasis and psoriasis vulgaris. Quality of life plays a significant role, with older age groups and males experiencing a moderate impact. Patients with Palmoplantar psoriasis often reported a moderate effect on their quality of life. Insufficient knowledge and unrealistic expectations can lead to treatment failures, highlighting the crucial role of pharmacists in educating and supporting patients. Overall, our study underscores that increased disease severity is linked to decreased quality of life, emphasizing the importance of early diagnosis, patient education, and effective disease management to improve acceptance and overall well-being.

References:-

- 1. Hägg, David et al. "Severity of Psoriasis Differs Between Men and Women: A Study of the Clinical Outcome Measure Psoriasis Area and Severity Index (PASI) in 5438 Swedish Register."
- 2. Deka, Darshana et al. "Psoriasis: A comparative study as per Ayurvedic and modern Classics." Journal of Ayurvedic and Herbal Medicine, vol. 2, no. 5, 2016, pp. 186-191.
- 3. Dutta, Siddhartha et al. "Psoriasis: A Review of Existing Therapies and Recent Advances in Treatment."
- 4. Declercq, Sarah Dubois et al. "Promising New Treatments for Psoriasis."
- 5. Sendrasoa, Fandresena Arilala et al. "Quality of Life in Patients with Psoriasis Seen in the Department of Dermatology, Antananarivo, Madagascar."
- 6. More, Vrunal V. et al. "PSORIASIS: A COMPREHENSIVE REVIEW."
- 7. Moradi, Mahshid et al. "Health Status and Quality of Life in Patients with Psoriasis: An Iranian Cross-sectional Survey."
- 8. Pezeskpoor, Fakhrozaman et al. "Quality of Life in Psoriasis Patients and Its Correlation with Disease Severity."
- 9. Bhosle, Monali J. et al. "Quality of Life in Patients with Psoriasis."
- 10. Aldal, Shourk et al. "Quality of Life of Psoriasis and Their Acceptance of the Disease."
- 11. Sekar, Suganya et al. "A Clinic Epidemiological Study of Psoriasis Patients with Moderate to Severe Plaque Type in Tertiary Care Centre in South India."
- 12. Shikiar, Richard et al. "The Validation and Responsiveness of Three Quality of Life Measures in the Assessment of Psoriasis Patients: Results of a Phase 2 Study."
- 13. Egeberg, Alexander et al. "Epidemiology of Psoriasis in Hard-to-Body Locations: Data from Danish Skin Cohort."
- 14. Lebwohl, Mark G. et al. "Perspectives in the Management of Psoriasis and Psoriasis Arthritis: Patient and Physician Results from the Population-based Multinational Assessment about Psoriasis Arthritis and Psoriatic (MAPP) Survey."
- 15. Abraham, Nikitha et al. "Management of Psoriasis Ayurveda and Allopathy: A Review."
- 16. DiPiro, Joseph T. et al. "Pharmacotherapy: A Pathophysiologic Approach, Eighth Edition."
- 17. Premkumar, Ba. "A Review on Allopathic and Herbal Remedies for Psoriasis."
- 18. Langley, R. et al. "Psoriasis: Epidemiology, Clinical Features, and Quality of Life." Ann Rheum Dis, vol. 64, Suppl 2, 2005, pp. ii18–ii23.
- 19. Ravishankar, K. et al. "Clinical Pharmacy and Pharmacy Therapeutics."
- 20. Kamiya, Koji et al. "Risk Factors for the Development of Psoriasis."