

A Survey of Treatment Practices in Management of Psoriasis Patients among Dermatologists of Kerala

Abstract

Introduction: The management of psoriasis is a daily challenge for dermatologists as most patients present with varied morphological presentations and exacerbations at every visit. This exerts a heightened responsibility on the dermatologists to tailor their treatments according to each patient. **Aims:** This study was conducted to assess the variation in treatment practices in the management of psoriasis patients among dermatologists of Kerala. **Materials and Methods:** A questionnaire-based survey was conducted among the practicing dermatologists of Kerala, South India. **Conclusions:** At the end of this questionnaire-based study, we concluded that there is a wide variation in the treatment practices among practicing dermatologists of Kerala. Dermatology Life Quality Index (DLQI) is not assessed by majority of dermatologists while planning treatment. Most dermatologists rely on body surface area while planning treatment due to time constraints and did not perform PASI (Psoriasis Area and Severity Index) or PGA (Physician Global Assessment) scoring. Satisfaction and challenges related to current therapies also impact treatment rates. Our dermatologists adhered to their own individual guidelines while treating and expressed a dire need for a unified guideline.

Keywords: Dermatologist, guideline, psoriasis, survey

Introduction

Psoriasis is a chronic T-cell-mediated multisystem disease with worldwide prevalence of 1–3%.^[1] The treatment of psoriasis is on the whole unsatisfactory as there are no known methods which lead to a permanent control of the disease though there are many modalities which may cause partial and temporary remission. The literature available on the real-world physician perspectives on the impact of psoriasis and its treatment on patients' daily lives, including perceptions and satisfaction with current therapies is very less. Hence, we sought to explore the details of current practice in treatment for psoriasis among dermatologists in Kerala, a state in Southern India.

Materials and Methods

This was a questionnaire-based survey involving practicing dermatologists of teaching and non-teaching hospitals and those working independently without any hospital attachment in Kerala, South India.

A structured 21-point questionnaire was distributed to dermatologists directly and

few questionnaires were also distributed at the regional conferences. The questionnaire contained 21 questions; pertaining guidelines followed for treatment, treatment approaches, scoring systems, and the unmet need for a unified guideline. Variables included average weekly number of psoriasis patients seen, different treatment modalities employed, treatment options, dosages, and counseling. The association of the above variables was analyzed by the Chi-square test and the data described on the basis of frequencies and percentages.

Observations and Results

Out of 200 dermatologists to whom the questionnaires were distributed, 85 returned the questionnaires (response rate, 42.5%). Non-teaching dermatologists comprised 77/85 (90.6%), while the rest of the respondents were teaching professionals (9.4%).

On an average, dermatologists were visited by 41 ± 5 psoriasis cases per week. Sixty out of 85 (70.6%) respondents agreed that the increasing burden of disease is frequently underestimated. About

Mohammed Nazeer,
Surya Ravindran,
Geethu
Gangadharan,
Sebastian Criton

Department of Dermatology,
Amala Institute of Medical
Sciences, Thrissur, Kerala, India

Address for correspondence:

Dr. Mohammed Nazeer,
Department of Dermatology,
Amala Institute of Medical
Sciences, Amala Nagar,
Thrissur - 680 555,
Kerala, India.
E-mail: drnazeerkv@gmail.com

Access this article online

Website: www.idoj.in

DOI: 10.4103/idoj.IDOJ_306_18

Quick Response Code:



This is an open access journal, and articles are distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 4.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as appropriate credit is given and the new creations are licensed under the identical terms.

For reprints contact: reprints@medknow.com

How to cite this article: Nazeer M, Ravindran S, Gangadharan G, Criton S. A survey of treatment practices in management of psoriasis patients among dermatologists of Kerala. Indian Dermatol Online J 2019;10:437-40.

Received: September, 2018. **Accepted:** December, 2018.

44.7% (38 out of 85) preferred a combination of topical steroids and emollient as the first line of treatment. Phototherapy was chosen by only 4.6% (4/85) [Table 1] of respondents and 51 out of 85 (60%) expressed the unmet need for more phototherapy facilities in this region. Methotrexate was the most preferred modality of treatment for moderate-to-severe psoriasis in 62 out of 85 dermatologists (73.2%); 15 out of 85 (17.3%) used topical steroids, 4 out of 85 (4.7%) used phototherapy [Table 2]. Out of 85, only 11 dermatologists (12.9%) frequently used biologicals and preferred it only when body surface area (BSA) was more than 20% and when patients were not responding to conventional modalities of treatment.

About 72 out of 85 (84.7%) of dermatologists recognized the importance of assessment of severity before deciding treatment. Thirty-nine out of 85 (45.9%) used Psoriasis Area and Severity Index (PASI) scoring for severity assessment, whereas the remaining preferred BSA [Figure 1]. Dermatologists who saw less than 5 patients per week did PASI scoring in comparison to those who saw more than 20 patients per week and resorted to BSA [Table 3] (*P* value: 0.033).

Even though all dermatologists believed in counseling before beginning treatment, only 19 out of 85 (22.3%) actually counseled their psoriatic patients on a daily basis. While the role of exercise was frequently emphasized by dermatologists to patients, only a minority suggested dietary modifications to their patients. Dermatologists who saw less number of patients per week discussed co-morbidities and treatment modalities more frequently compared to those with more number of patients per week with significance [Table 4] (*P* value = 000).

About 38 out of 85 dermatologists (44.7%) felt that Ayurveda and Siddha forms of treatment are interfering in the course of treatment leading to multiple relapses in their psoriatic patients.

Discussion

Psoriasis is currently one of the most prevalent autoimmune diseases in the world. The dermatologists in our study saw an average increase in number of patients seen per week. This is in concordance with the rising burden of psoriasis in India with a prevalence of 0.44–2.8%.^[2] The prevalence of psoriasis in adults ranged between 0.91% (United States) while in Africa and Asia the prevalence is below 0.5%.^[1]

Majority of the surveyed dermatologists opted for a combination of methotrexate and emollients to treat moderate-to-severe psoriasis. In a similar survey by Knuckles *et al.*^[3] 47% US patients with moderate plaque psoriasis received biologicals as their primary therapy. This variation could be attributed to the large number of insured patients in the West and lack of expertise with the use of biologicals in our population. Many dermatologists failed to initiate biologicals due to their long-term safety, tolerability,

Table 1: Primary treatments for mild-to-moderate psoriasis: Dermatologist (n=85) response to the question: What is your first choice of treatment in mild-to-moderate psoriasis?

Modalities	Percentage
Topical steroids	60.7 (51/85)
Emollients	15.4 (13/85)
Phototherapy	4.6 (4/85)
Steroids	2.4 (2/85)
Others	17 (15/85)

Table 2: Primary treatments for moderate-to-severe psoriasis: dermatologist (n=85) response to the question: what is your first choice of treatment in moderate-to-severe psoriasis?

Modalities	Percentage
Phototherapy	4.7 (4/85)
Biologicals	3.5 (3/85)
Methotrexate	73.2 (62/85)
Cyclosporine	2.4 (2/85)
Topical medication	17.3 (15/85)

Table 3: Scoring system compared with number of patients seen per week: (*P* value: 0.033)

No of patients seen per week	Scoring system assessed			
	PGA	BSA	PASI	Total
<5	3	4	13	20
5-10	1	20	15	41
11-20	0	7	2	10
>20	0	8	6	14

PGA=Physician Global Assessment; BSA=Body surface area; PASI=Psoriasis Area and Severity Index

Table 4: Counseling and number of patients per week co-relation: (*P* value=000)

No of patients seen per week	Co-morbidities discussed		Total
	No	Yes	
<5	0	20	20
5-10	16	25	41
11-20	5	5	10
>20	7	7	14

efficacy, and costs.^[4,5] In a global cross-sectional survey by Manalo *et al.*^[6] 116 total dermatologists completed the questionnaire and 62.9% were unfamiliar with biosimilars. Despite the growing number of biological therapies that are entering the clinical arena more studies are needed for validating its use as a first line agent. Phototherapy was chosen by only 4.6% of our respondents and they expressed an unmet need for the same. Most of our hospitals lack adequate infrastructure facilities for bath psoralen with ultraviolet A (PUVA) treatment. McMichael *et al.*^[7] reported high potency topical steroids (68%) and topical vitamin D analogues (41%) to be the most sought treatment

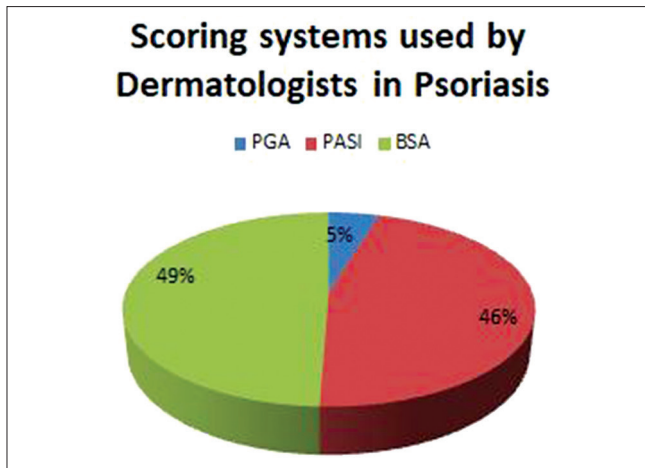


Figure 1: Severity Scoring Dermatologist ($n = 85$) response to the question: how will you assess the severity of psoriasis?

for mild-to-moderate psoriasis in African-Americans. The Multinational Assessment of Psoriasis and Psoriatic Arthritis (MAPP)^[8] survey concluded that approximately half of dermatologists and one-quarter rheumatologists wanted to leave their practice because of frustration or dissatisfaction with current therapies.

Mean PASI and DLQI correlate predictably in patients with chronic moderate-to-severe plaque psoriasis undergoing treatment with biological agents. PASI tends to be more validated and detailed and hence it remains the scoring system of choice for clinical trials. In a systematic review^[9] PASI was the most commonly used clinical measure in current research. Our respondents preferred BSA over PASI due to its ease of use and convenience. However, BSA has multiple shortcomings such as low response distribution, no consensus on interpretability, and low responsiveness in mild disease.^[10] Knuckles *et al.*^[3] reported the use of BSA and location of lesion in 60% respondents while determining severity. A review^[11] on 30 randomized controlled trials concluded that PASI and PGA (Physician Global Assessment) are substantially loquacious and either alone is a sufficient tool for assessing moderate-to-severe psoriasis. On the other hand, since PGA is more complex, it may be well suited for community-based projects. DLQI is also a reliable tool but as it involves a lengthy questionnaire, it might be impractical for use in a busy dermatology clinic. DLQI was not assessed by majority of our dermatologists who saw more than 20 patients per week (statistically significant). Hence time constraint is an associated factor for choosing a particular scoring system in our set up.

Diets that modify the polyunsaturated fatty acid metabolism and influence the eicosanoid profile help to suppress the inflammatory process in psoriasis.^[12] In our study, even though dermatologists believed in the importance of diet in psoriasis only few were able to counsel these patients in reality. This creates major lacunae in our practice

as the latest dimension in treatment of psoriasis is to control the associated metabolic syndrome.^[13] However, dermatologists who saw less number of patients per week discussed co-morbidities and treatment modalities more frequently compared to those with more number of patients per week with significant P value. In an Indian healthcare system with a surplus patient count there is always a time constraint to counsel patients on a daily basis. Educational pamphlets about the modification of lifestyle can be distributed by physicians to patients to counter this issue.

In India, practitioners of traditional medicine still remain primary healthcare providers for millions of people in rural India where herbal preparations of *Wrightia tinctoria* oil and ayurvedic massages^[14] are used to treat psoriasis. Patients should be educated not to resort to Ayurveda and Siddha forms of treatment especially in unstable psoriasis as it may lead to frequent flares.

Pediatric psoriasis presents with a wide variety of clinical psoriasis including plaque-type, guttate, erythrodermic, napkin, and nail-based disease.^[13] Findings suggest that dermatologists recognize pediatric psoriasis to be difficult and different to manage compared to adult psoriasis. Pediatric psoriasis needs a holistic approach of treatment owing to the emotional and psychological stress on a child's mind and their parents.^[15] The earlier diagnosis and evaluation of pediatric psoriasis can prevent or delay co-morbidities in the future.

Conclusion

The treatment practices vary among practicing dermatologists in Kerala. This is the first study from India that has incorporated physician perspectives and treatment guidelines in psoriasis. The need of the future is to formulate a unified guideline acceptable to all dermatologists. DLQI is not assessed by majority of dermatologists while planning treatment and most dermatologists rely on BSA due to time constraints. The need of the hour is to make use of technology to create and propagate the utility of apps for easy scoring of disease severity. This study clearly underscores the need for popularizing the distribution of educational pamphlets at the first visit to every psoriatic patient.

Limitations: Small response rate and as in many surveys, predefined choices may limit analysis options.

Financial support and sponsorship

Nil.

Conflicts of interest

There are no conflicts of interest.

References

1. Parisi R, Symmons DP, Griffiths CE, Ashcroft DM; Identification and Management of Psoriasis and Associated

- Co morbidity (IMPACT) Project Team. Global epidemiology of psoriasis: A systematic review of incidence and prevalence. *J Invest Dermatol* 2013;133:377-85.
2. Dogra S, Yadav S. Psoriasis in India: Prevalence and pattern. *Indian J Dermatol Venereol Leprol* 2010;76:595-601.
 3. Knuckles MLF, Levi E, Soung J. Defining and treating moderate plaque psoriasis: a dermatologist survey. *J Dermatolog Treat* 2018;29:1-6.
 4. Smith CH, Anstey AV, Barker JN, Burden AD, Chalmers RJ, Chandler D, *et al.* British association of dermatologists guidelines for use of biological interventions in psoriasis. *Br J Dermatol* 2005;153:486-97.
 5. Sivamani RK, Correa G, Ono Y, Bowen MP, Raychaudhuri SP, Maverakis E. Biological therapy of psoriasis. *Indian J Dermatol* 2010;55:161-70.
 6. Manalo IF, Gilbert KE, Wu JJ. The current state of dermatologists' familiarity and perspectives of biosimilars for the treatment of psoriasis: A global cross-sectional survey. *J Drugs Dermatol* 2017;16:336-43.
 7. McMichael AJ, Vachiramon V, Guzmán-Sánchez DA, Camacho F. Psoriasis in African-Americans: A caregivers' survey. *J Drugs Dermatol* 2012;11:478-82.
 8. Van de Kerkhof PC, Reich K, Kavanaugh A, Bachelez H, Barker J, Girolomoni G, *et al.* Physician perspectives in the management of psoriasis and psoriatic arthritis: Results from the population-based multinational assessment of psoriasis and psoriatic arthritis survey. *J Eur Acad Dermatol Venereol* 2015;29:2002-10.
 9. Meah N, Alsharqi A, Azurdia RM, Owens LC, Parslew R, Chularojanamontri L. Assessing the validity and response distribution of the simplified psoriasis index in patients receiving phototherapy. *Australas J Dermatol* 2018;59:41-7.
 10. Spuls PI, Lecluse LL, Poulsen ML, Bos JD, Stern RS, Nijsten T. How good are clinical severity and outcome measures for psoriasis?: Quantitative evaluation in a systematic review. *J Invest Dermatol* 2010;130:933-43.
 11. Robinson A, Kardos M, Kimball AB. Physician global assessment (PGA) and psoriasis area and severity index (PASI): Why do both? A systematic analysis of randomized controlled trials of biologic agents for moderate to severe plaque psoriasis. *J Am Acad Dermatol* 2012;66:369-75.
 12. Wolters M. Diet and psoriasis: Experimental data and clinical evidence. *Br J Dermatol* 2005;153:706-14.
 13. Sommer DM, Jenisch S, Suchan M, Christophers E, Weichenthal M. Increased prevalence of the metabolic syndrome in patients with moderate to severe psoriasis. *Arch Dermatol Res* 2007;298:321-8.
 14. Krishna Cm, Kumar DP, Sivaram G, Malini S, Venkateswarlu B, Dhoke SP, *et al.* Promising Ayurvedic Herbs in the Management of Kitibha (Psoriasis)- A Review. *Int J of Ayur Pharma Res* 2018;6:69-74.
 15. Beattie PE, Lewis-Jones MS. A comparative study of impairment of quality of life in children with skin disease and children with other chronic childhood diseases. *Br J Dermatol* 2006;155:145-51.