

Original Research Article

A study of the knowledge, attitude and behavior among patients with psoriasis vulgaris during the COVID-19 lockdown period

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ABSTRACT

Background: Patients with psoriasis may have been directly impacted by the COVID-19 lockdown and this may have had a significant effect on disease severity and treatment compliance. This study aims to investigate the knowledge, attitude and the behavioral practices of patients with psoriasis during the lockdown period.

Methods: A self-assessed questionnaire was employed for the purpose of this study and was answered by 100 patients of clinically diagnosed psoriasis.

Results: Although several patients were aware of their condition and its implications, a significant number of responders were found to have a faulty treatment compliance due to the COVID-19 lockdown.

Conclusions: To our knowledge, this is the first study that evaluates the knowledge, attitude and behaviour during the COVID-19 lockdown period of individuals who have been clinically diagnosed with psoriasis. This study raises the possibility that the sustained psychosocial stress induced by the current pandemic can potentially lead to exacerbations or onset of common inflammatory skin conditions like psoriasis. The overall compliance to dermatologic therapy was slightly poor as there were frequent concerns regarding the safety of visiting a hospital or a doctor as well as possible financial constraints. As per this study, there is an urgent need to convey the right information about managing psoriasis during the COVID-19 pandemic among both the general population and patients alike.

Keywords: Psoriasis, Lockdown, COVID-19

INTRODUCTION

Psoriasis is a chronic, inflammatory, proliferative condition of the skin, characterised by red, scaly, sharply demarcated, indurated plaques, present particularly over the extensor surfaces and scalp. The extent and severity can vary greatly over time and between individuals. Both genetic and environmental factors play a crucial role in its aetiology and pathogenesis.¹ In light of the rampant spread of COVID-19 infection, the mandatory lockdown has had several implications on chronic diseases like psoriasis due to various factors. There have been some

concerns that enforcement of strict social isolation measures may be associated with stress-induced worsening of psoriasis. The objective of this study is to investigate the impact on the COVID-19 lockdown on the attitude and behavioural practices of psoriasis patients.

METHODS

The type of the study was a pilot study. The study was conducted at the dermatology outpatient department at Sree Balaji medical college, Chennai. The study conducted from March to May 2021.

Inclusion criteria

All patients with psoriasis and patients consenting for the study were included in the study.

Exclusion criteria

Patients not consenting for the study were excluded from the study.

Procedure

A cross sectional survey was done among the patients clinically diagnosed with psoriasis visiting the dermatology outpatient department at Sree Balaji medical college and hospital, Chennai using a self-reported questionnaire that was divided into 3 parts, one each for knowledge, attitude and behaviour, to sought information regarding their condition. The study was conducted from March to May 2021. No age group was excluded. The questionnaire was given to a total of 100 patients diagnosed with psoriasis and their answers were recorded. Socio-demographic details like age, gender and occupation were recorded to provide a better understanding of the involved population. The study was ethically approved.

Statistical analysis

Descriptive analysis was done. Data entry was done on MS excel and data analysis was done in SPSS 22 version.

RESULTS

As illustrated in Table 2, roughly half of the patients recognised that proper rest was essential to curb the symptoms of psoriasis (54%), it can worsen due to the frequent use of hand sanitizers (56%) and that it can show seasonal variation (56%). However, only 40% of the responders believed that diet could influence the severity of their condition. The overall knowledge regarding the possible triggering factors for Psoriasis aggravation that could have been present during the lockdown period was positive in 54.3% of the responders.

Table 1: Demographic data.

Gender	Numbers
Male	61
Female	39

As shown in Table 3, over half of the participants were avoiding hospitals due to the fear of COVID-19 infection (56%), most of the responders were stressed due to the pandemic (63%), half of them avoided visiting a hospital (50%), almost half of the responders preferred relying on home remedies (49%) and most considered it essential to consult a dermatologist (50%). A good number of responders (54%) had altered their attitude towards their

condition due to the fear induced by the mandatory lockdown.

Table 2: Knowledge about psoriasis in the lockdown.

Questions	Yes (%)	No (%)
Proper rest is essential to prevent psoriasis from flaring up? ‘Yes’	54	46
Do you believe your condition can worsen due to excessive hand washing and use of hand sanitizers? ‘Yes’	56	44
Do you think psoriasis severity can show seasonal variation? ‘Yes’	56	44
Have you noticed lesions on a new site in this lockdown period? ‘Yes’	61	39
Do you believe that diet plays a role in the severity of psoriasis? ‘Yes’	40	60

Table 3: Attitude towards psoriasis in the lockdown.

Attitude of the participants	Yes (%)	No (%)
Are you avoiding visiting hospitals due to the fear of acquiring COVID-19 infection? ‘Yes’	56	44
The news of COVID-19 infection makes me stressed. ‘Yes’	63	37
It is better to stop all medications without medical advice during the lockdown to decrease the risk of acquiring COVID-19 infection. ‘Yes’	50	50
It is better to rely on natural remedies than to visit a hospital during the lockdown. ‘No’	51	49
It is essential to consult a Dermatologist through tele-consultation. “Yes”	50	50

As shown in Table 4, majority of the responders had been regular with the application of moisturizers (67%), a good number of them (57%) were aware of the benefits of stress reducing activities on their condition, some of the participants had a tele consultation with a dermatologist (40%), and most of them realized that it was important to keep other comorbid conditions under control (64%). Several responders had difficulty in complying with their regular treatment. Of these, in a sizeable number of responders (53%), loss of work or income was responsible for the non-compliance of regular treatment. Income loss was associated with the exacerbation of psoriasis, stress, and symptoms of anxiety and depression.²

Table 4: Behavior among patients towards psoriasis during the lockdown.

Practice variables	Yes (%)	No (%)
Have you been applying moisturizers every day in the lockdown? 'Yes'	67	33
Stress reduction strategies like yoga, meditation help to control psoriasis. 'Yes'	57	43
I have had a tele-consultation with a Dermatologist during the lockdown? 'Yes'	40	60
It is essential to keep my comorbid conditions (Diabetes, Hypertension) under control. 'Yes'	64	36
Do you believe your compliance to treatment for your condition has changed compared to pre-COVID times? 'Yes'	60	40
If yes, do you believe that it is due to financial constraints? 'Yes'	53	47

DISCUSSION

The aim of this study is to get a survey about the knowledge, attitude and behavior towards psoriasis among patients during the COVID-19 related mandatory lockdown. The results we found indicated that a good number of people had developed new lesions and encountered several difficulties in managing their condition during the lockdown. As psoriasis is a chronic condition, and most of our participants were of an older age group, they were possibly already aware of the various aggravating and relieving factors for their condition. Thus, we found that a significant percentage of responders had the knowledge about the lockdown induced effects on psoriasis. However, it is disheartening to find that almost one half of the responders were still unaware of the condition and this necessitates the need for creating awareness regarding psoriasis.

The risk factors for the development of psoriasis can be classified into extrinsic and intrinsic factors.³ Extrinsic risk factors include mechanical stress, drugs, infection, and lifestyle. Vaccination can be also recognized as an extrinsic risk factor and influenza and adenovirus vaccines are often associated with the development of psoriasis.⁴⁻⁶ In contrast, intrinsic risk factors include metabolic syndrome, obesity, diabetes mellitus (DM), dyslipidemia, hypertension, and mental stress. Of these, mechanical stress, certain drugs, infection, and obesity are known to be associated with the exacerbation of psoriasis.

Diet has been proposed to play a role in the aetiology and pathogenesis of psoriasis. Fasting periods, low energy

diets and vegetarian diets may provide symptomatic relief, and diets rich in polyunsaturated fatty acids also showed beneficial effects.⁷ These diets modify the polyunsaturated fatty acid metabolism and so suppress the inflammatory processes.⁸ In our study, we found that most people were unaware of the effects of a good diet on their skin condition.

We also found that the fear and stress surrounding COVID-19 infection made it difficult for them to visit hospitals and dermatologists and thus may have negatively impacted their condition. Misinformation regarding the benefits of natural and home remedies may have influenced the responders to prefer its use. Repeated exposure to alcohol can cause or maintain skin dryness and irritation, thus worsening existing lesions of psoriasis.⁹

It was observed that although many of the responders had managed to comply with the regular application of moisturizers, many others felt it was better to resort to natural remedies in the absence of a physical in-office consult. A majority of the responders were aware of the need to keep their comorbid conditions like obesity under control in order to avoid flareups. Shared cytokines have been found to contribute to causing both metabolic syndrome and psoriasis, thus making psoriasis an important healthcare issue that requires standardized care.¹⁰ However, there is still a need to counsel patients on weight loss and leading healthy, active lifestyles. Financial losses also appeared to play a role in the discontinuation of treatment in those who were found to be non-compliant with their treatment, as many may have lost jobs due to the lockdown. Discontinuation could unnecessarily increase disease burden and could cause disease worsening. Only a fraction of the responders was able to access a tele-consultation. Since a large number of psoriasis patients have metabolic syndrome, which can result in worse prognosis in the event of COVID-19 infection, tele-dermatology can be used as an anchor to follow-up Psoriasis patients on treatment, to make minor changes in their treatment regimen without exposing them to risk of infection inherent in physical consultation. Tele-dermatology can also be used as an excellent tool to triage some new patients, and in provisionally diagnosed cases with mild psoriasis, topical treatment can be prescribed as temporary measure for those with mild psoriasis, till physical consultation is feasible.¹¹

Moreover, the negative psychological consequences of this pandemic era, with a generally fear state, in addition to the reduced quality of life due to forced quarantine may have a further negative impact on the course of psoriasis which has been strictly linked to the physiological and emotional state.¹

Limitations of study included recall bias of patient-reported outcome, and the lack of other scientific studies. In the absence of conclusive evidence with respect to implications of the lockdown period on patients with

psoriasis, this study can only serve as a pilot study. However, it can be a stepping stone for a larger research project.

CONCLUSION

To our knowledge, this is the first study that evaluates the knowledge, attitude and behavior during the COVID-19 lockdown period of individuals who have been clinically diagnosed with psoriasis. This study raises the possibility that the sustained psychosocial stress induced by the current pandemic can potentially lead to exacerbations or onset of common inflammatory skin conditions like psoriasis. The overall compliance to dermatologic therapy was slightly poor as there were frequent concerns regarding the safety of visiting a hospital or a doctor as well as possible financial constraints. As per this study, there is an urgent need to convey the right information about managing psoriasis during the COVID-19 pandemic among both the general population and patients alike.

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