



Original Article

A prospective study to evaluate the incidence of Palmoplantar Psoriasis in North Region of India

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Abstract

Background: Psoriasis is a common and chronic T cell mediated skin disorder with varied clinico-morphological types. Most of the published studies have reported chronic plaque type psoriasis to be the commonest type.

Aim and Objective: To find the incidence of palmoplantar psoriasis among the patients from Northern region of India.

Materials and Methods: Forty five patients were prospectively studied for the period of January 2017 to June 2017 at Sharma Hospital, Morar, Gwalior.

Results: Incidence of palmoplantar psoriasis was found to be highest among all morphological forms of psoriasis.

Conclusion: Incidence of palmoplantar psoriasis is high mainly in male patients who are in second to fourth decade of their life.

Keywords: Palmoplantar psoriasis, Incidence, proliferative condition, skin.

Introduction

Psoriasis is one of the most common, chronic, inflammatory and proliferative condition of skin. Both genetic and environmental factors play a very important role in development of the disease. In addition to skin, psoriasis also affects nails and joints.¹ The lesion in psoriasis consists of red, scaly, well demarcated plaques mainly over extensors and scalp.¹

Varied prevalence is reported all over the world. The prevalence of psoriasis may be as high as

11.8% depending on the population studied. In Indian population studies done by Okhandiar et al² and Bedi³, has reported incidence of 1.02% and 2.8% respectively. Another study from North India has reported 2.3% incidence of psoriasis among all the skin patients.⁴

Limited data is available on the clinical spectrum of the disease in psoriasis.^{5,6} In maximum number of studies chronic plaque type psoriasis or psoriasis vulgaris has been reported as the most common type of psoriasis. It is well documented

that palmoplantar psoriasis produces considerable social and functional disability.⁷

In present study we tried to find out the incidence of palmoplantar psoriasis in patient population of our region.

Materials and Methods

Present hospital based cross sectional study was performed on 45 psoriasis patients who had come to Sharma Hospital, Morar, Gwalior from January 2017 to June 2017. In present study we included all the confirmed patients of psoriasis including newly diagnosed cases.

Details including history taking at first visit regarding onset, duration, progression of disease and complains was recorded and data regarding age, sex, family history, nail involvement, morphology of lesions, exacerbating or relieving factors, and histological findings in cases where biopsy was done. This was followed by thorough dermatological examination by the trained dermatologists before putting up the diagnosis of palmoplantar psoriasis.

Diagnosis of psoriasis was mainly done using clinical judgment as psoriasis is characterized by typical scaly patches with silvery scales which is accentuated on scratching and involvement of instep region over the soles. Doubtful cases were subjected to biopsy and scrapping for fungus to rule out other dermatoses.

All the data analysis was performed using IBM SPSS ver. 20 software. Quantitative data was expressed as mean \pm standard deviation (SD) whereas categorical data was expressed as percentage. Cross tabulation and frequency distribution was used to prepare the table and Microsoft excel 2010 was used to prepare the required graph. Level of significance was assessed at 5% level.

Results

Out of 972 patients who come to the study place during the study time, 45 were of psoriasis. Out of these 59% were male and 41% were female showing slight male preponderance. Maximum

patients were in the age group of 20-40 years (62%) followed by 40-60 years (14%).

In present study out of 45 patients of psoriasis, 22 (48.9%) were of palmoplantar psoriasis which is a huge number followed by chronic plaque type psoriasis (33.3%). The lesions were bilaterally symmetrical in almost 88.9% patients. However, in some there was involvement of dominant hand. Over the palms plaques mainly present over pressure points with relative sparing of central palm. Over the soles, instep and sides of feet were characteristically involved. In most of the cases the disease was symptomatic causing irritation, pain, difficulty in walking or working. Involvement of both palms and soles (53.3%) was more common than either of them alone. The skin lesions were associated with the psoriatic nail changes in 40% patients.

Table 1 Incidence of various morphological patterns of psoriasis

Morphological pattern	Percentage (%)
Palmoplantar Psoriasis	48.9
Chronic plaque type Psoriasis	33.3
Scalp Psoriasis	2.2
Pustular Psoriasis	2.2
Others (flexural, psoriatic arthritis, guttate)	2.2

Discussion

Prevalence of psoriasis in India has been reported mainly from hospital based studies. A study done by Okhandiar et al² reported the psoriasis incidence among the total skin related disorders ranging from 0.44-2.2%. In another similar study from North India psoriasis patients accounted for 2.3% of the total Dermatology outpatients.⁴ Both the studies are in agreement to the findings of present study where psoriasis was observed in slightly higher percentage (4.62%) of patients. This may be due to small number of patients. Male were mostly affected in present study which is in agreement to the previous studies.⁴

In present study out of 45 psoriasis patients, palmoplantar psoriasis was observed in 48.9% of the psoriasis patients which is in agreement to the study done by Venkatesan et al who reported a

prevalence of 59%.⁸ Chronic plaque type psoriasis ranked second with 38% in the study done by Venkatesan et al which is accordance to the findings of present study where chronic plaque type psoriasis was observed in 33.3%. In study by Bedi most common type of psoriasis was chronic plaque type and second most common was palmoplantar psoriasis.³ Okhandiar et al studied 116 psoriasis patients from different medical college and reported that the extensors were the most common site of involvement followed by the scalp.²

Previous studies have shown that maximum patients complained about irritation, fissuring, difficulty in walking difficulty in manual work and pain,^{9,10} which is in agreement to present study findings where the disease was symptomatic in most of the cases causing irritation, pain, difficulty in walking or working.

In present study both palms and soles involvement was seen in 53.3% cases. Palmar involvement was exclusively present in 28.8% of the cases and planter involvement in 15.5% of the cases. In a similar study by Kumar et al¹¹ plantar involvement was twice as common as palmar involvement. Psoriasis of palms and soles is associated with typical scaly patches over which a fine silvery scale can be seen while scratching or as less well-defined plaques resembling hyperkeratotic eczema or as pustulosis. It also accompanied by sparing of creases over palms and increased pigmentation of skin. In present study the skin lesions were associated with the psoriatic nail changes in 40% patients. In agreement to present study nail involvement reported by Chopra et al was 23.4%.¹²

The proper diagnosis of the palmoplantar psoriasis is often missed due to similar morphological appearance like hyperkeratotic eczema, dermatophytosis and contact dermatitis. It is important to distinguish between the palmoplantar psoriasis with other similar looking condition to initiate timely intervention.

Cross sectional nature was the main drawback of present study, due to which findings of present

study cannot be applied to whole population; Small sample size was the another limitation; a large randomized clinical trial is required to strengthen the present study results.

Conclusion

The prevalence of palmoplantar psoriasis is high among the study population. It is the most common type of psoriasis among all the other possible types. More such hospital based studies are required to validate the changing scenario.

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