wjpmr, 2017,3(9), 157-159

SJIF Impact Factor: 4.103

WORLD JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.wjpmr.com

Review Article

ISSN 2455-3301

WJPMR

A STUDY ON DERMATOLOGICAL COMORBIDITIES IN PSORIASIS

Soorya Baskaran[1], Dr. Jayakar Thomas*[2] and Kovi Sneha[3]

[1,3]Resident, Department of Skin and STD, Sree Balaji Medical College and Hospital, Chennai, India.
[2]Professor and Head, Department of Skin and STD, Sree Balaji Medical College and Hospital, Chennai, India.

***Corresponding Author: Dr. Jayakar Thomas**

Professor and Head, Department of Skin and STD, Sree Balaji Medical College and Hospital, Chennai, India.

Article Received on 14/07/2017 **Article Revised on 03/08/2017** **Article Accepted on 24/08/2017**

ABSTRACT

Background: Psoriasis is an immune mediated inflammatory disorder which occurs in a genetically predisposed individual. It commonly affects the skin, joint, and nail. Multiple studies have reported the association of systemic co-morbidities with psoriasis. Only a few studies have reported the association of other dermatological disorders with psoriasis. This study is done to find the incidence of dermatological co-morbidities in patients with psoriasis. **Objective:** This study attempts to find out the incidence of dermatological co-morbities in psoriasis patients. **Patients and Methods:** Hundred patients with psoriasis were included in the study. All the patients were subjected to complete history taking and physical and dermatological examination. **Results:** In our study about 60% of patients show associated co-morbidities, commonest co-morbidities was malaria rubra (15%), acanthosis nigricans (15%), followed by dermatosis papulosa nigrans (13.3%), androgenetic alopecia (10%), seborrheic keratosis (6.67%), paraphenylene diamine dermatitis (6.67%), dermatophytosis (5%) and others. The presence of multiple co-morbidities was noted in many patients. **Conclusion:** Dermatological co-morbidities in psoriasis should also be screened and managed along with systemic co-morbidities. Large scale cohort studies are needed to assess the incidence and pathogenesis of dermatological conditions associated with psoriasis.

KEYWORDS: Dermatological co-morbidities, psoriasis.

INTRODUCTION

Psoriasis is a chronic multi system inflammatory disorder affecting the skin, joints, and nail primarily. This systemic disorder with multifactorial etiology is associated with various co-morbidities. Co-morbidity is the presence of one or more diseases co-occurring with the primary disease. Co-morbidities have a major impact on psoriasis patients. Systemic inflammation is thought to be the cause of co-morbidities. Co-morbid conditions interconnectedwith psoriasis are associated with increased rates of morbidity and mortality. Dermatological conditions linked with psoriasis have not been explored.

AIM

The aim of this study is to find the incidence of dermatological co-morbidities in psoriasis patients attending the skin OPD.

MATERIALS AND METHODS

A cross sectional observational study was done with 100 patients diagnosed clinically with psoriasis (all types). All the patients were subjected to complete history taking and complete physical and dermatological examination.

RESULTS

Data of the participants were analyzed. In our study the commonest age group affected was between 21 – 40 years of age (43%), followed by 28% in the age group of 41-60 years, 25% in the age group of 61-80 years and 4% below 20 years [TABLE 1]. This study shows more or less equal gender predilection [TABLE 2]. The commonest type of psoriasis is psoriasis vulgaris (71%), followed by palmoplantar psoriasis (10%), plantar psoriasis (8%), scalp psoriasis (7%) and palmar psoriasis (4%) [TABLE 3].

In our study about 60% of patients show associated co-morbidities, commonest co-morbidities was malaria rubra (15%), acanthosis nigricans (15%), followed by dermatosis papulosa nigrans (13.3%), androgenetic alopecia (10%), seborrheic keratosis (6.67%), paraphenylene diamine dermatitis (6.67%), dermatophytosis(5%) and others [TABLE 4& FIG 1]. The presence of multiple co-morbidities was noted in many patients.

Table 1: Age Distribution.

Age Distribution	Number	Percentage
< 20 years	4	4 %
21 – 40 years	41	41 %
41 – 60 years	30	30%
61 80 years	25	25%
Total	100	100 %

Table 2: Gender Distribution.

Gender Distribution	Number	Percentage
Male	51	51 %
Female	49	49%
Total	100	100%

Table 3: Type of Psoriasis.

Type of psoriasis	Number	Percentage
Psoriasis vulgaris	72	72 %
Palmoplantar psoriasis	9	9 %
Palmar psoriasis	4	4 %
Plantar psoriasis	8	8%
Scalp psoriasis	7	7%
Total	100	100%

Table 4: Distribution of dermatological co-morbidities.

Dermatological comorbidities	Number	Percentage
No comorbity	40	40%
Milaria rubra	9	15%
Acanthosis nigricans	9	15%
DPN	8	13.3%
AGA	6	10%
Seborrhoeic keratosis	4	6.67%
PPD dermatitis	4	6.67%
Dermatophytosis	3	5%
Xerosis	3	5%
Onychomycosis	2	3.33%
Verruca vulgaris	2	3.33%
Folliculitis	2	3.33%
Ichthyosis	2	3.33%
Melasma	2	3.33%
Pmle	2	3.33%
Vitiligo	2	3.33%
Seborrhoeic dermatitis	2	3.33%
Candidal balanoposthitis	1	1.67%
Compound nevus	1	1.67%
Dermatoheliosis	1	1.67%
Telogen effluvium	1	1.67%
Soft fibroma	1	1.67%
Keloid	1	1.67%
Intertrigo	1	1.67%
IGH	1	1.67%
Periorbital melanosis	1	1.67%
Pityriasis versicolor	1	1.67%
Post seborrhoeic melanosis	1	1.67%
Scabies	1	1.67%

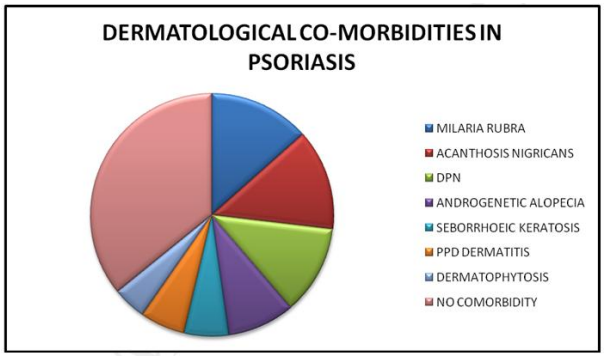

Figure 1: Distribution of dermatological co-morbidities.

DISCUSSION

Psoriasis is an immune mediated inflammatory disorder. It affects 2-3% of world population. Incidence of psoriasis occurs in two peaks, the first occurring between 16 and 22 years and the second between 57 and 62 years of age. Psoriasis is classified into two types based on the age of onset, HLA Cw6 association, and family history. Along with genetic factor, environmental factors like infections, drugs (Beta blockers, Lithium, NSAIDS etc), and intake of alcohol, smoking, stress, sunlight, and trauma also play a role in the pathogenesis of psoriasis. It present as erythematous silvery white scaly plaques over the extensor of extremities, trunk, and scalp. Psoriasis is now recognized as a systemic inflammatory disorder. Psoriasis is associated with multiple systemic and dermatological co-morbidities. Systemic co-morbidities are cardio-metabolic disease (obesity, hypertension, diabetes mellitus, dyslipidemia and metabolic syndrome), inflammatory bowel disease, non alcoholic fatty liver disease, non alcoholic steatohepatitis, chronic kidney disease, malignancy (non melanoma skin cancers and lymphoma), infections, mood disorder, psoriatic arthritis, chronic obstructive pulmonary disease, peptic ulcer disease, sexual dysfunction, and obstructive sleep apnea.[1]

Thelink between psoriasis and cardiovascular changes are thought to be due Th1 and Th17 mediated inflammation, increased oxidative stress, monocyte and neutrophils modulation, angiogenesis and endothelial cell dysfunction.[2]

Recent studies reveal psoriasis is also associated with other dermatological disorders but these results are often inconsistent. Dermatological comorbidities reported are vitiligo, tinea pedis, onychomycosis, lichen planus, alopecia, rosacea etc.[3]

Vitiligo and psoriasis are both considered as autoimmune disorder hence they can coexist.[4]

Fungal infection and psoriasis – infection with yeast are more common than dermatophytic infection, alteration in subungual tissue and onycholysis may facilitate the invasion of yeasts. Furthermore, the fast turnover of the

nails, an increased blood flow, an altered chemical composition and altered morphological appearance in psoriasis patients may act as an effective defense against dermatophytes.[5]

Acanthosis nigricans as a manifestation of metabolic syndromes can co-exist.

In psoriasis, due to increase AMP there is a decrease in Malassezia species. But few studies have shown that Malassezia invade the skin and induce stress in predisposed keratinocytes there by stimulating AMP production and TLR 2 pathway which exacerbates the disease.[6]

The link between psoriasis and co-morbidities is complex and statistical associations do not essentially prove causality. Larger studies are needed to identify the pathophysiology of psoriasis and its association.

CONCLUSION

Dermatological co-morbidities in psoriasis should also be screened and managed along with systemic co-morbidities. Large scale cohort studies are needed to assess the incidence and pathogenesis of dermatological conditions associated with psoriasis.

REFERENCES

1. Takeshita J, Grewal S, Langan SM, Mehta NN, Ogdie A, Van Voorhees AS, Gelfand JM. Psoriasis and comorbid diseases: epidemiology. Journal of the American Academy of Dermatology, 2017 Mar 31; 76(3): 377-90.
2. Ogdie A, Yu Y, Haynes K, et al. Risk of major cardiovascular events in patients with psoriatic arthritis, psoriasis and rheumatoid arthritis: a population-based cohort study. Ann Rheum Dis, 2015; 74: 326-332.
3. Zander N, Schäfer I, Radtke M, Jacobi A, Heigel H, Augustin M. Dermatological comorbidity in psoriasis: results from a large-scale cohort of employees. Archives of Dermatological Research, 2017 Apr 12: 1-8.
4. Inamadar AC, Sampagavi VV, Athanikar SB, Patil MN, Deshmukh NS. Vitiligo and psoriasis: coexistence with colocalization. Indian Journal of Dermatology, Venereology, and Leprology, 2001 Jul 1; 67(4): 214.
5. Larsen GK, Haedersdal M, Svejgaard EL. The prevalence of onychomycosis in patients with psoriasis and other skin diseases. Actadermato-venereologica, 2003 Jan 1; 83(3): 206-9.
6. Thayikkannu AB, Kindo AJ, Veeraraghavan M. Malassezia—Can it be Ignored? Indian journal of dermatology, 2015 Jul; 60(4): 332.