International Journal of Research in Dermatology
Sharanya B et al. Int J Res Dermatol. 2026 Nov;12(6):598-604
https://www.ijord.com

DOI: https://dx.doi.org/10.18203/issn.2455-4529.IntJResDermatol20263737

Original Research Article

Clinico pathological correlation of inflammatory palmoplantar dermatoses in a tertiary care hospital

Bhupathi Sharanya[1]*, Rajendran Narayanan[1], Srikanth Shanmugam[1], Manobalan Karunanandhan[1], Shanmugasamy Kathirvelu[2]

[1]Department of of Dermatology Venereology and Leprosy, Mahatma Gandhi Medical College and Research Institute, SBV University, Pondicherry, India
[2]Department of Pathology, Mahatma Gandhi Medical College and Research Institute, SBV University, Pondicherry, India

Received: 24 July 2026
Revised: 10 September 2026
Accepted: 13 October 2026

***Correspondence:**
Dr. Bhupathi Sharanya,
E-mail: shannushars@gmail.com

Copyright: © the author(s), publisher and licensee Medip Academy. This is an open-access article distributed under the terms of the Creative Commons Attribution Non-Commercial License, which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

ABSTRACT

Background: Inflammatory palmoplantar dermatoses (PPD), including palmoplantar psoriasis, palmoplantar pustulosis, palmoplantar eczema, palmoplantar lichen planus, lichen nitidus often mimics each other, posing a diagnostic challenge. This study was done in an attempt to identify the clinicopathological correlation of these conditions as they have an impact on the patient's quality of life. To arrive at the degree of concordance between clinical and histopathological diagnosis of inflammatory PPD.
Methods: A 15-month study (February 2018–April 2019) was done in the Department of Dermatology, Mahatma Gandhi Medical College and Research Institute, Pondicherry. Forty patients with clinically doubtful inflammatory PPD or responding poorly to treatment underwent clinical examination and lesional skin biopsy. Clinical and histopathological diagnoses were correlated.
Results: The mean age in 40 patients was 50.60 (SD=16.46) years. Psoriasis was the most common diagnosis clinically (22, 55%) and histopathologically (23, 57.5%), followed by eczema (10, 25% and 9, 22.5%) respectively. clinicopathological concordance was observed in 18 (82%) patients with psoriasis, 6 (60%) eczema, 1 (16.7%) lichen planus and 1 (100%) patient with pustulosis. It was statistically significant in psoriasis (p=0.035), eczema (p=0.03) and pustulosis (p<0.0001), but not for lichen planus and lichen nitidus. In the non-concordant group, histopathology showed nonspecific dermatitis in 6 (15%) patients.
Conclusions: Although skin biopsy did not offer a specific diagnosis in the non-concordant group, it contributed in establishing the diagnosis in the concordant group. Hence, clinicopathological correlation is valuable for establishing an accurate diagnosis and guiding appropriate treatment.

Keywords: Clinical, Histopathology, Correlation, Palmoplantar dermatoses, Inflammatory dermatoses

INTRODUCTION

PPD are a diverse group of dermatological disorders that are common in clinical practice. These disorders can be due to hereditary or acquired keratodermas, various infective and inflammatory conditions.[1–3] Inflammatory palmoplantar dermatoses are palmoplantar psoriasis, palmoplantar pustulosis, palmoplantar eczema, palmoplantar lichen planus, lichen nitidus and pompholyx.[4] They often result in a diagnostic dilemma in clinical grounds as they mimic many dermatologic conditions.[5] The involvement of palms and soles can

cause morbidity to the patients, as they interfere with daily routine activities.

Most of the studies that have reflected on a particular type of PPD among whole spectrum of disease like palmoplantar psoriasis, palmoplantar lichen planus, hand eczema and so on.[6–8] While there are few studies describing all the conditions in PPD, in which they have focused only on clinical profile.[1,2,5] There are very limited studies that described the clinical and histopathological features of PPD.[9,10] As these conditions overlap clinically, histopathological evaluation provides accurate diagnosis that will aid in the appropriate treatment.

The study aimed to identify the proportion of various inflammatory palmoplantar dermatoses. It is unique in arriving at the degree of concordance between clinical and histopathological diagnoses of inflammatory PPD by identifying their clinical and histopathological patterns.

METHODS

Participants and study design

This was an observational, cross-sectional study done in the Department of Dermatology at Mahatma Gandhi Medical College and Research Institute, Pondicherry on 40 patients over a period of 15 months (February 2018 to April 2019). After obtaining informed consent, we have included all consecutive patients above 18 years of age with inflammatory palmoplantar dermatoses, who had diagnostic dilemma and responded poorly to treatment. We excluded patients who have received treatment recently in any form for the palmoplantar lesions, infections, tumours, hereditary and pigmentary conditions.

The diagnosis of the inflammatory palmoplantar dermatoses was based on both clinical and histopathological findings. After history taking and detailed clinical examination of lesions, provisional diagnosis was made under the supervision of two consultants. The recruited patients were explained about the biopsy procedure and counselled regarding the possible would healing which heals around 4 to 5 days. After test dose of local anesthetic, under local anesthesia, a 3mm punch biopsy was taken from the lesion. Histopathological findings or parameters were obtained and recorded from the skin biopsy report of each recruited patient.

Statistical methods

Statistical analysis was carried out using SPSS version 19.0 (IBM SPSS, US) software with regression modules installed. Descriptive analyses were reported as mean and standard deviation of continuous variables. Qualitative variables were expressed in percentage, and chi-square tests were used to compare clinical and histopathological parameters and diagnosis.

RESULTS

The demographic characteristics of the study participants are presented in (Table 1). The study included 40 patients, with a female-to-male ratio of 1.1:1.



Figure 1 (a-f): Palmoplantar psoriasis, Palmoplantar eczema, Palmoplantar Lichen planus, Pustulosis, and Palmoplantar lichen nitidus.

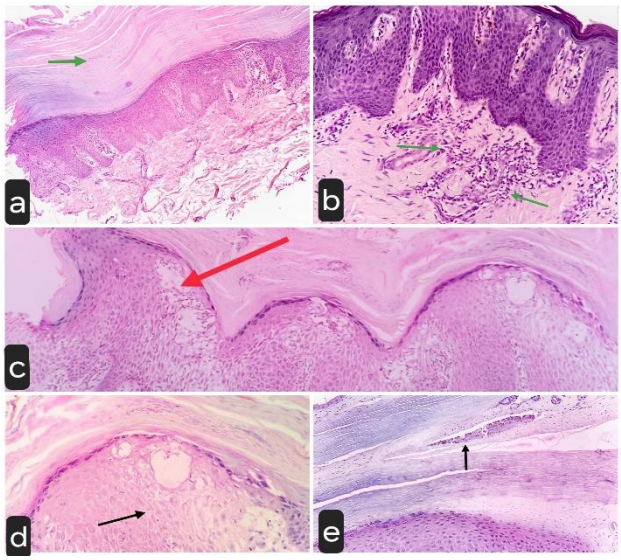


Figure 2 (a-e): (a,b) Histopathology of palmoplantar psoriasis (10X) showing hyperkeratosis, parakeratosis (green arrow), hypogranulosis and regular elongation of rete ridges, (c) Histopathology of palmoplantar psoriasis (40X) showing parakeratosis in stratum corneum and inflammatory infiltrate containing predominantly lymphocytes (arrow) in upper dermis, (d) histopathology of palmoplantar eczema (10X)/&(40X) showing spongiosis in epidermis (arrow), (e) histopathology of palmoplantar pustulosis (100X) showing neutrophil collection (arrow) in the stratum corneum.

The patients ranged in age from 19 to 84 years, with a mean age of 50.60±16.46 years. The mean duration of

disease in palmoplantar dermatoses patients (n=40) was 7.55 (SD=4.63) years. Out of 40 total patients studied, clinically 22 patients (55%) have been diagnosed as psoriasis, 10 patients (25%) as eczema, 6 patients (15 %) as lichen planus, 1 patient as lichen nitidus and 1 patient as Pustulosis (Figure 1 (a-f)).

A total of 36 patients had palmar involvement and 30 patients had plantar involvement, among which both palms and soles involved in 26 (65%) patients, only palms in 10 (25%) patients and only plantar lesions in 4 (10%) patients. Majority of the patients had itching (70%) as the common symptom followed by oozing (12.5%). Among 28 patients with itching, 16 (57.14%) patients were psoriasis, 6 (21.42%) patients were eczema, 4 (14.28%) patients had lichen planus, 1 (3.57%) patient had lichen nitidus and 1 (3.57%) patient had pustulosis. Morphology of lesions in palms and soles described in (Table 2). Among the patients with erythematous plaques, psoriasis was the common condition in 6 (66.66%) patients with palmar lesions and 7 (87.5%) patients with lesions in soles while the remaining patients had eczema. (Table 3) shows distribution of site of lesions in palms and soles, in which psoriasis found to commonly involve the pressure bearing area in 13 (86.66%) patients. In contrast, eczema was more common in non-pressure bearing regions in 8 (47.05%) patients.

Symmetry of lesions was noted in 27 (67.5%) patients, in which palmoplantar psoriasis was more common in 16 (59.25%) patients than other conditions. In Histopathological diagnosis, majority had palmoplantar psoriasis in 23 (57%) patients, followed by eczema in 9 (22%) patients, 1 (3%) patient had lichen planus, 1 (3%) patient had pustulosis and remaining 6 (15%) patients had non-specific dermatoses. Histopathological features of palmoplantar dermatoses are shown in (Figure 2 (a-e)). Histopathological parameters showed hyperkeratosis as the most common finding in 90% of patients followed by acanthosis in 75% of patients (Table 4). On correlating certain histopathological parameters with histopathological diagnosis, parameters that had statistically significant association with psoriasis were listed in (Table 5). sOn clinico-pathological correlation (Table 6), statistically significant association was found between clinical and histopathological diagnosis of psoriasis (p=0.035), eczema (p=0.03) and pustulosis (p<0.0001). In contrast, statistically significant correlation was not seen between clinical diagnosis of lichen planus and lichen nitidus to histopathological diagnosis. It was noted that there was a statistically significant association between eczema and oozing (p=0.002 <0.05), between eczema and allergen (p=0.001<0.05) and also between psoriasis and instep (p=0.001<0.05) (Table 7).

Table 1: Demographic characteristics of the study participants (n=40).

Demographic characteristics	Number of patients (N)	%
Age (in years)		
15–40	12	30.0
41–65	21	52.5
66–85	7	17.5
Gender		
Female	21	52.5
Male	19	47.
Total	40	100.0

Table 2: Morphology of lesions in palms and soles.

Morphologies	Palms (n=36)	Soles (n=30)
Hyperpigmented plaque	24 (66.66%)	18 (60%)
Erythematous plaque	9 (25%)	8 (26.66%)
Violaceous plaque	1 (2.77%)	2 (6.66%)
Papulovesicle	2 (5.55%)	1 (3.33%)
Pustules	-	1 (3.33%)

Table 3: Distribution of site of lesions in palms and soles according to clinical diagnosis.

Clinical diagnosis	Palm distribution (n=36)			Sole distribution (n=30)			
	Pressure-bearing area	Non-pressure-bearing area	Diffuse	Instep	Lateral margins	Diffuse	Others
Psoriasis	13 (36.1%)	6 (16.7%)	1 (2.8%)	15 (83.33%)	0	1 (25%)	1 (33.33%)
Eczema	1 (2.8%)	8 (22.2%)	1 (2.8%)	1 (5.55%)	2 (40%)	1 (25%)	2 (66.66%)
Lichen planus	1 (2.8%)	3 (8.3%)	1 (2.8%)	1 (5.55%)	2 (40%)	2 (50%)	0
Lichen nitidus	0	0	1 (2.8%)	0	1 (20%)	0	0
Pustulosis	0	0	0	1 (5.55%)	0	0	0
Total	15 (41.7%)	17 (47.2%)	4 (11.1%)	18 (60%)	5 (16.67%)	4 (13.33%)	3 (10%)

Table 4: Histopathological parameters in study population.

Histopathological parameters	Total (n=40)
Hyperkeratosis	36 (90%)
Parakeratosis	21 (52.5%)
Munro's microabscess	16 (40%)
Spongiosis	11 (27.5%)
Hypogranulosis	13 (32.5%)
Hypergranulosis	3 (7.5%)
Acanthosis	30 (75%)
Spongiform pustule of kogoj	14 (35%)
Inflammatory infiltrate	28 (70%)

Table 5: Association between histopathological parameters and histopathological diagnosis.

Histopathological characteristics	Psoriasis (P value)	Eczema (P value)
Hyperkeratosis	0.006	0.141
Acanthosis	0.005	0.142
Hypogranulosis	0.002	-
Munro's microabscess	0.005	-
Spongiform pustules of Kogoj	0.001	-

Table 6: Clinico-pathological correlation between clinical and histopathological diagnoses with P value (N=40).

Diagnosis	Clinical diagnosis	Histopathological diagnosis concordant with clinical diagnosis	Not correlated	P value
Psoriasis	22 (55%)	18 out of 22 (82%)	4	0.035
Eczema	10 (25%)	6 out of 10 (60%)	4	0.03
Lichen planus	6 (15%)	1 out of 6 (16.7%)	5	0.9
Lichen nitidus	1 (2.5%)	0	1	-
Pustulosis	1 (2.5%)	1 out of 1 (100%)	0	0.001
Total diagnosis	40	26	14	-

Table 7: Association of oozing and allergen identification with eczema and instep involvement with psoriasis.

Clinical feature	Clinical diagnosis	Present, N (%)	Absent, N (%)	Total (N)	P value
Oozing	Eczema	4 (40.0)	6 (60.0)	10	0.002
	Other diagnoses	1 (3.3)	29 (96.7)	30	
Allergen identified	Eczema	9 (90.0)	1 (10.0)	10	0.001
	Other diagnoses	9 (30.0)	21 (70.0)	30	
Instep involvement	Psoriasis	15 (68.2)	7 (31.8)	22	0.001
	Other diagnoses	3 (16.7)	15 (83.3)	18	

DISCUSSION

PPD are a group of conditions that can either affect palms and soles alone or associated with skin lesions elsewhere in the body. These are severely disabling conditions as they affect the quality of life of the patients. The age distribution revealed that most of the patients (52.5%) were in the age group ranging from 41 to 65 years. Similar age distribution was noted in previous studies.[10,11] The older age of presentation in our study was attributed to increased manual work and exposure to various chemicals. In the study, majority were housewives 18 (45%) patients followed by 7 (17.5%) patients who were agricultural laborers. Similarly, Nair et al reported housewives (30.2%) as the most commonly affected followed by laborers in 26.2% of population. While a study done by Mahajan et al showed that 48.16% patients were manual workers followed by 18.69% of patients who were housewives.[12] In the study, itching was predominantly seen in 16 (57.14%) psoriasis patients followed by eczema in 6 (21.42%) patients.

The next common symptom was oozing which was seen predominantly in 4 (80%) eczema patients. Whereas, in a study done by Agarwal et al it was noted that itching was the predominant symptom and it was seen in 85.42%of

eczema patients while it was found only in 29.73% of psoriasis patients.[13] This could be due to the reason that they had more number of eczema patients whereas in there study we had more number of psoriasis patients. Dash et al found that psoriasis was the most common condition in their study showing erythema similar to our study.[14] However, there is sparsity of data about different dermatoses associated with hyperpigmented plaques. In the study, 86.66% of Psoriasis patients had lesions occurring over pressure bearing area. This can be attributed to friction and other trauma in these regions and as a part of koebnerisation. Similarly, in a study done by Sujay et al the majority of psoriasis (44%) involved pressure bearing sites of palms than other sites.15 Whereas among patients with non-pressure bearing areas in the study, eczema was the most common cause, followed by psoriasis and lichen planus. In soles, instep was the predominantly affected site in 15 (88.23%) psoriasis patients. These features were comparable to a study done by Hongal et al in which they reported instep involvement in 78.6% of psoriasis.[1] Whereas another study by Nair et al, showed involvement of heels as the common site followed by plantar arch and other sites.[5]

Similar to our study, Hong et al also found that palmoplantar psoriasis to be the most common condition in 20.7% patients while allergic contact dermatitis comprised only 4.3% of patients, hyperkeratotic palmar eczema in 4% of patients, pompholyx in 3.7% of patients and irritant contact dermatitis in 2.7% of patients.[1] Another study by Nair et al also found that psoriasis to be the most common condition causing palmoplantar dermatoses in 28.22% of patients, whereas eczema in 13.36% of patients.[5] But Dash et al found eczema to be the commonest condition in 45% of patients and psoriasis in 37% of patients.[14] Whereas, Kang et al in their study on palmoplantar dermatoses, identified palmoplantar pustulosis is the most common dermatoses in 23.2% of patients followed by verruca in 11.4%, pompholyx in 10% of patients.[9] This difference could be due to the reason that in our study we have excluded palmoplantar dermatoses due to infective and other hereditary causes.

Similar to the study, Sujay et al also found that symmetry was more common in psoriasis (79%).[15] Whereas another study done by Chopra et al found symmetry in all of the cases with psoriasis and eczema.[16] In the study, spongiosis was present in all 9(100%) histopathological diagnosis of eczema patients and in 1 psoriasis patient. Agarwal et al also found that spongiosis was seen in 51.3% of palmoplantar psoriasis.13 In the study, psoriasis showed statistically significant association with hyperkeratosis (p=0.006), acanthosis (p=0.005), hypogranulosis (p=0.002), Munro's microabscess (p=0.005) and spongiform pustules of Kogoj (p=0.001). This was in concordance to a study done by Kambiz et al in which hypogranulosis (p<0.0001), Monro's microabscess (p<0.0001), confluent parakeratosis (p=0.044) and spongiform pustules (p=0.047) were statistically significant.[17] On clinico-pathological correlation, we noted that 18 (82%) patients with clinical diagnosis of psoriasis were correlated (remaining cases were 1 eczema and 3 non-specific diagnosis) histopathologically. One (100%) patient with pustulosis correlated, as the appearance of pustular lesions clinically gives the diagnostic clue in most of the cases.[18] Whereas, 6 (60%) patients with clinical diagnosis of eczema were correlated histopathologically and remaining showed 2 psoriasis and 2 non-specific diagnosis. One (16.7%) out of 6 patients with clinical diagnosis of lichen planus has correlated (others were 3 psoriasis, 1 eczema and 1 non-specific diagnosis) histopathologically. As palmoplantar lichen planus mimics other common PPD, it can be easily misdiagnosed and to avoid overdiagnosis, biopsy can be helpful.[19] While one patient with clinical diagnosis of lichen nitidus had finding of eczema histopathologically, this non concordance could be due to the reason that pompholyx type of eczema closely mimics lichen nitidus clinically.[20,21]

Kodali et al studied clinico-histopathological correlation of acquired palmoplantar keratoderma. They found 31 out of 55 psoriasis patients, 20 out of 31 patients with eczema, and 8 out of 11 patients with lichen planus correlated.10 Whereas in Dash et al study, 75.6% psoriasis and 73.6% eczema correlated with their clinical findings.[14] While the study is unique in finding clinico-pathological correlation in inflammatory palmoplantar dermatoses and also elaborated in detail about the non-correlated conditions, which had overlapped diagnosis. This variation between clinical and histopathological diagnosis could be explained by the fact that most of the inflammatory palmoplantar dermatoses share common clinical features. Though the palmoplantar dermatoses mimic each other clinically, histologically they differ by the presence of a few key features specific to them.

Association between palmoplantar eczema and allergen

In our study, exposure to allergens had a statistically significant association in 9 out of 10 eczema patients (p=0.001). This was in concordance with a study done by Vigneshkarthik et al which showed a statistically significant association between masons and potassium dichromate (p=0.02) and between hair dye and para-phenylenediamine, which was tested using patch test.[22]

Association between eczema and oozing

In our study, a statistically significant association was found between eczema and oozing in 4 out of 10 patients (p= 0.002). A study done by Trehan et al also found that oozing has a statistically significant association with hand eczema (p= 0.011).[23]

Psoriasis vs instep

In our study statistically significant association was found between psoriasis and instep (15 out of 22 psoriasis patients) p=0.001. while, only 3 out of 18 patients with

other diagnosis had instep involvement. However, there was no statistically significant association found between eczema and hyperkeratosis (p=0.14), eczema and acanthosis (p=0.14). Whereas, all histopathological diagnosis of eczema patients had spongiosis in 9 (100%) patients.

Limitations

The study was limited by its small sample size, which may restrict the generalizability of the findings. Biopsy was not performed in all types of palmoplantar dermatoses and only cases of inflammatory palmoplantar dermatoses fulfilling the predefined inclusion criteria were selectively recruited for histopathological evaluation and interpretation of histopathological findings may also be subject to interobserver variability.

CONCLUSION

Through this study, it was evident that there is a significant correlation between clinicopathological parameters in palmoplantar psoriasis (p=0.035), eczema (p=0.03) and pustulosis (p<0.0001). Twenty-six patients showed correlation with clinical diagnosis, particularly in doubtful and treatment-resistant cases, though 14 cases did not. Our study also provides information on various clinical patterns of presentation in different palmoplantar dermatoses. Considering the overlap in clinical diagnosis, where 1 patient with psoriasis, 1 patient with lichen planus and 1 patient with lichen nitidus were found to have features suggestive of eczema histopathologically, 2 patients with eczema were found to be psoriasis histopathologically and 3 patients with lichen planus were found to be psoriasis. It is clearly evident that skin biopsy can be helpful to have a definitive diagnosis. Hence further studies can be done with a large study population on clinicopathological correlation of palmoplantar dermatoses. Various clinical patterns can be identified for specific diagnosis and biopsy confirmation can be done for effective treatment.

Funding: No funding sources
Conflict of interest: None declared
Ethical approval: The study was approved by the Institutional Ethics Committee

REFERENCES

1. Hongal AA, Rajashekhar N, Gejje S. Palmoplantar Dermatoses- A Clinical Study of 300 Cases. J Clin Diagn Res. 2016;10(8):4-7.
2. Rathoriya SG. Clinical profile of palmoplantar dermatoses in patients attending tertiary health center in central India. Int J Res Dermatol. 2018;4(4):514.
3. Zemtsov A, Veitschegger M. Keratodermas. International Journal of Dermatology. 1993;32(7):493-8.
4. Patel S, Zirwas M, English JC. Acquired palmoplantar keratoderma. Am J Clin Dermatol. 2007;8(1):1-11.
5. Nair P, Diwan N, Singhal R, Vora R. A prospective study of clinical profile in patients of palmoplantar dermatoses. Indian Dermatol Online J. 2017;8(5):331.
6. Kumar B, Saraswat A, Kaur I. Palmoplantar lesions in psoriasis: A study of 3065 patients. Acta Dermato-Venereologica. 2002;82(3):192-5.
7. Sánchez-Pérez J, Rios Buceta L, Fraga J, García-Díez A. Lichen planus with lesions on the palms and/or soles: prevalence and clinicopathological study of 36 patients. British J Dermatol. 2000;142(2):310-4.
8. Agarwal US, Besarwal RK, Gupta R, Agarwal P, Natalia S. Hand eczema. Indian J Dermatol. 2014;59(3):213-24.
9. Kang BS, Lee JD, Cho SH. A clinicopathological study of palmoplantar dermatoses. Korean J Dermatol. 2006;44(6):714-20.
10. Kodali S. A clinico-histopathological study of acquired palmoplantar keratoderma in a rural-based tertiary hospital. J Evol Med Dent Sci. 2014;3(30):8500-5.
11. Murthy SC, Raghu TY, Suresh T. A study of palmoplantar keratodermas in South India. Int J Dermatol. 2008;47(7):762-4.
12. Mahajan PM, Gharpuray MB, Kulkarni V. Clinical and histopathological study of palmoplantar keratoderma. Indian J Dermatol Venereol Leprol. 1994;60(5):258.
13. Agarwal P, Nijhawan M, Mathur DR. Clinicopathological study of hyperkeratotic lesions of palms and soles : An observational study. Int J Sci Stud. 2014;1:19-23.
14. Dash M, Sahu MK, Padhi T. Clinico-pathological correlation of acquired palmoplantar hyperkeratotic disorders. J Evid Based Med Healthc. 2018;5(25):1942-7.
15. Khandpur S, Singhal V, Sharma VK. Palmoplantar involvement in psoriasis: A clinical study. Indian J Dermatol Venereol Leprol. 2011;77(5):625.
16. Chopra A, Maninder, Gill SS. Hyperkeratosis of palms and soles: clinical study. Indian J Dermatol Venereol Leprol. 1997;63(2):85-8.
17. Hesari KK, Naraghi ZS, Nikoo A, Ghanadan A, Sabaghi M. Palmoplantar psoriasis versus eczema: Major histopathologic clues for diagnosis. Dermatol Pract Concept. 2014;4(4):251-6.
18. Brunasso AMG, Puntoni M, Aberer W, Delfino C, Fancelli L, Massone C. Clinical and epidemiological comparison of patients affected by palmoplantar plaque psoriasis and palmoplantar pustulosis: a case series study. Br J Dermatol. 2013;168(6):1243-51.
19. Landis M, Boyer C, Bahrami S, Brogan B. Palmoplantar lichen planus: A rare presentation of a common disease. J Dermatol Case Rep. 2008;2(1):8-10.

20. Podder I, Mohanty S, Chandra S, Gharami RC. Isolated palmar lichen nitidus-A diagnostic challenge: First case from eastern India. Indian J Dermatol. 2015;60(3):308-9.
21. Park SH, Kim SW, Noh TW, Hong KC, Kang YS, Lee UH, et al. A case of palmar lichen nitidus presenting as a clinical feature of pompholyx. Ann Dermatol. 2010;22(2):235-7
22. Vigneshkarthik N, Ganguly S, Kuruvila S. Patch test as a diagnostic tool in hand eczema. J Clin Diagn Res. 2016;10(11):4-7.
23. Trehan A, Singh K, Kanodia S, Verma AS. Contact hypersensitivity in hand eczema – A study with Indian standard series of allergens. Int Med J. 2014;1(7):6.

Cite this article as: Sharanya B, Narayanan R, Shanmugam S, Karunanandhan M, Kathirvelu S. Clinico pathological correlation of inflammatory palmoplantar dermatoses in a tertiary care hospital. Int J Res Dermatol 2026;12:598-604.