International Journal of Dermatology, Venereology and Leprosy Sciences

E-ISSN: 2664-942X
P-ISSN: 2664-9411
Impact Factor (RJIF): 5.67
www.dermatologypaper.com
Derma 2026; 9(1): 01-05
Received: 02-10-2025
Accepted: 05-11-2025

All author's name and affiliations are given below, after references

Mucocutaneous lichen in pigmented skin: Epidemiological, clinical, and prognostic features at the university dermatology and venereology clinic of CNHU-HKM in Cotonou

Bérénice Degboe, Kitha Pierre, Assogba Diane, Vigan Jean-Paul, Akpadjan Fabrice, Adégbidi Hugues and Atadokpèdé Félix

DOI: https://www.doi.org/10.33545/26649411.2026.v9.i1a.253

Abstract

Introduction: The scarcity of studies on the characteristics of mucocutaneous lichen (MCL) in pigmented skin motivated this investigation, which aimed to describe the epidemiological, clinical, and evolutionary features of MCL in a hospital setting.

Methods: A cross-sectional study with retrospective data collection was conducted at the university dermatology and venereology clinic of the Hubert Koutoukou Maga National and University Hospital Center (CUDEV/CNHU-HKM) in Cotonou, over a 10-year period. Patients diagnosed with MCL based on clinical criteria were included. Data were analyzed using Epi Data 3.1 software, and statistical significance was set at $p<0.05$.

Results: The hospital frequency of MCL was 1.83% (218/11,917 patients). The sex ratio was 0.86, and the mean age was 34.12±15.69 years. Of the 36 patients who reported triggering factors, 83.33% mentioned psychological disorders and 16.67% sleep disturbances. The main clinical forms were classic cutaneous (62.84%), mucocutaneous (14.22%), and verrucous (9.63%). Complete remission at six weeks, following corticosteroid therapy initiated in 94.87% of cases, was achieved in 65.33% of patients. A recurrence was observed in 8% of cases after six months of follow-up.

Discussion: As previously reported in studies from the subregion, MCL at CUDEV/CNHU-HKM more frequently affected young female patients, often preceded by psycho-emotional disorders. The classic cutaneous form was predominant, with a frequently diffuse distribution. Corticosteroid therapy showed relative effectiveness.

Conclusion: In dermatology practice in Cotonou, mucocutaneous lichen affected more frequently young female patients. The classic cutaneous form was predominant, most often with a diffuse distribution. Recurrence was observed in a non-negligible proportion of cases.

Keywords: Mucocutaneous lichen, viral hepatitis, diabetes, corticosteroid therapy, Benin

Introduction

Mucocutaneous Lichen (MCL), also known as lichen planus, is a chronic inflammatory dermatosis that can affect the skin, mucous membranes, and appendages. Its prevalence ranges from 0.22% to 5%, depending on geographic region and ethnicity [1]. Studies conducted in West Africa suggest that this condition predominantly affects younger individuals. The cutaneous form is most common, while mucosal and appendageal forms are rarer [2-5]. On pigmented skin, MCL can cause significant aesthetic damage and negatively impact patients' quality of life. The distinct features of MCL in pigmented skin, particularly in tropical African settings, are rarely reported in the literature. This study aimed to describe the epidemiological, clinical, and evolutionary characteristics of MCL in the University Clinic of Dermatology and Venereology at the Hubert Koutoukou Maga National and University Hospital Center (CUDEV/CNHU-HKM) in Cotonou, Benin.

Materials and Methods

A retrospective and cross-sectional study, with both descriptive and analytical aims, was conducted at CUDEV/CNHU-HKM from June 2012 to May 2022, covering a 10-year period.

Corresponding Author:
Bérénice Degboe
Professor, University Clinic of Dermatology and Venereology, Hubert Koutoukou Maga National and University Hospital Center (CNHU-HKM) of Cotonou / Faculty of Health Sciences, University of Abomey-Calavi, Benin

Using a non-probabilistic sampling approach, patients were selected through exhaustive sampling, including all individuals diagnosed clinically with MCL and with available and usable medical records. Cases with uncertain diagnosis that were histopathologically confirmed were also included. Patients with unusable records and/or unconfirmed doubtful cases were not included. Data were collected from patient records using a Kobo Collect digital questionnaire created with KoboToolbox. Variables collected included sociodemographic data, clinical and evolutionary features, and treatments administered.

The study was conducted in accordance with the principles of the Ethics Committee of the Faculty of Health Sciences of Cotonou and applicable ethical guidelines. Confidentiality and anonymity were upheld throughout the study.

Data were analyzed using Epi Data 3.1 and Epi Info version 7.1.3.3. Epidemiological descriptive and analytical methods were applied. A p-value < 0.05 was considered statistically significant.

Results

The hospital prevalence of MCL was 1.83% (218/11,917 patients). The sex ratio was 1.16 with a slight female predominance (53.67%). Among the 218 patients included, children aged 0-18 years accounted for 16.51%, and young adults aged 18-35 were the most represented group (44.50%). The mean age was 34.12±15.69 years (range: 6 to 80 years). The age distribution of the patients is illustrated in Figure 1.

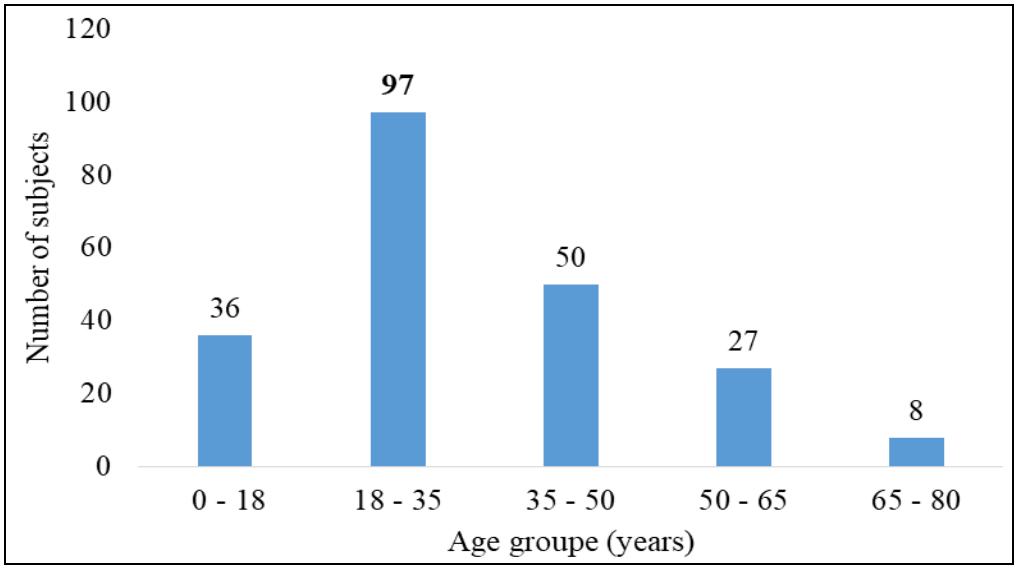

Fig 1: Age group distribution of patients diagnosed with lichen in the Dermatology and Venereology Department of CNHU-HKM, from June 2012 to May 2022

The average disease duration before consultation was 48 weeks (range: 5 days to 34 years). Self-medication and the use of herbal remedies prior to consultation were reported in 44.95% and 14.68% of cases, respectively. Of the 36 patients who reported triggering factors, 83.33% mentioned psychological disorders and 16.67% sleep disturbances. Associated comorbidities included atopy (31.65%), hypertension (7.34%), diabetes mellitus (6.88%), hepatitis B (5.96%), hepatitis C (0.91%), and Human Immunodeficiency Virus infection (3.21%). A family history of diabetes was reported in 22.02% of cases and showed a significant association (P=0.001). At presentation, lesions were pruritic in 90% of cases

The predominant elementary lesions were lichenified papules (50.23%), illustrated in Figure 2 and hyperpigmented macules (39.73%), mainly with diffuse distribution (38.8%), involving the lower limbs (37%), upper limbs (17.8%), and trunk (16.4%).

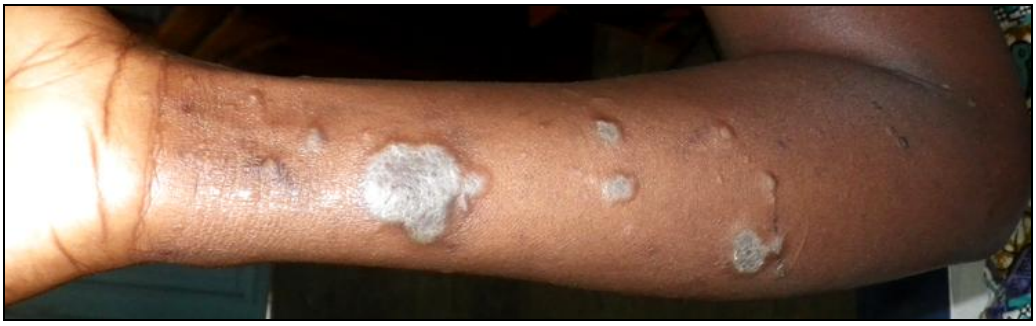

Fig 2: Typical lichenified papules on the anterior aspect of the forearm

The main clinical forms presented in Table I, were the classic cutaneous form (64.22%), illustrated in Figure 3A, the verrucous form (14.68%), illustrated in Figure 3B and the mucocutaneous form (11.47%).

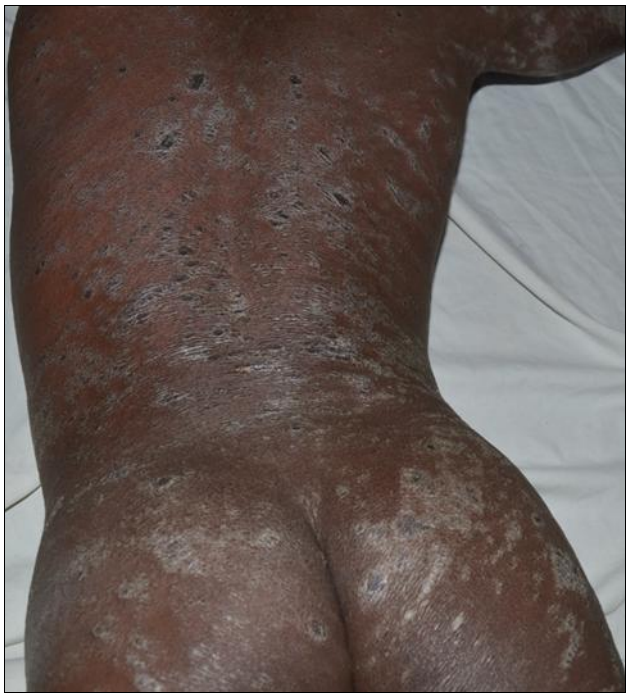

Fig 3A: Classic cutaneous lichen

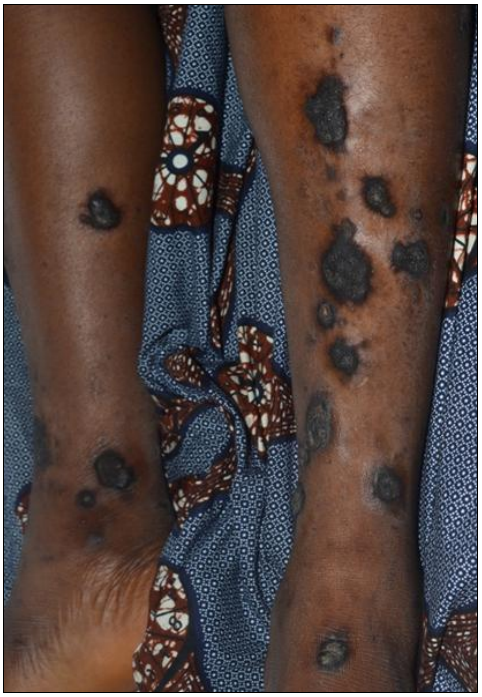

Fig 3B: Verrucous lichen of the legs

Table 1: Distribution of patients according to the clinical form of lichen in the Dermatology and Venereology Department of CNHU-HKM, from June 2012 to May 2022

	Number of subjects	Proportion (%)
Classical cutaneous lichen planus	140	64.22
Verrucous lichen planus	32	14.68
Mucocutaneous lichen planus	25	11.47
Nail lichen planus	10	4.59
Scalp lichen planus	6	2.75
Oral lichen planus	2	0.92
Palmar-plantar lichen planus	2	0.92
Erythrodermic lichen planus	1	0.46
Total	218	100

A complete remission rate of 65.3% was observed at six weeks following corticosteroid therapy, which was prescribed in 94.5% of cases. A recurrence occurred in 12.2% of patients after six months of follow-up.

Discussion

The study's objectives were largely achieved. However, limitations included the retrospective nature of the study, a significant proportion of missing data, 32 unconfirmed doubtful cases, and 25 unusable records. Nevertheless, the study provides valuable insights into cases of MCL followed at CUDEV/CNHU-HKM in Cotonou, which can be discussed in light of existing literature.

The hospital prevalence of 1.83% is comparable to findings by Teclessou in Lomé (1.9%) and Diabaté in Abidjan (1.2%) [3, 4], higher than that reported by Kouassi in Treichville and Diop in Dakar [2, 5], but markedly lower than the prevalence reported by Korle in Ghana [6].

Our results are consistent with previous studies showing that MCL in sub-Saharan Africa mainly affects individuals aged 30-40 years [2-5], except in Ghana where it was more frequently found in adults over 50 years [6]. In Western countries, the disease tends to occur later, between 40 and 60 years of age [7, 8]. In our cohort, 16.51% of cases occurred in children aged 0-18 years, compared to 9.6% and 7.7% report in Togo and Senegal, respectively, although those studies used a narrower age cutoff of 15 years [2, 5]. Most studies report a female predominance [2-8].

The average delay in consultation was long (approximately 11 months), comparable to findings by Kouassi but considerably longer than in Togo [4, 5]. This disparity may reflect national differences in healthcare access. In sub-Saharan Africa, patients rarely seek immediate hospital care for general health issues, particularly skin disorders. This explains the high rate of self-medication and traditional therapy in our sample.

Among reported triggering factors, psychological disorders were cited in 83.3% of cases higher than in Dakar (38.4%) but lower than in Bouaké (92%) [2, 3]. These results highlight the need to investigate previous life events and to consider supportive or specialized psychotherapy.

Reported comorbidities in the literature include diabetes and hepatitis B and C [2, 5, 7, 9-12], with geographic variability reflecting the regional prevalence of these diseases. This justifies systematic screening in CML patients, especially in high-prevalence areas.

As in previous studies, the classic cutaneous form was the most frequent [2, 4, 5, 7, 8], followed to varying degrees by the hypertrophic, isolated mucosal, or mixed mucocutaneous forms.

Systemic corticosteroids remain the most cost-effective and widely used treatment in our setting, with moderate to good

efficacy [2-5, 13]. Recurrence rates vary: 11.6-16.1% in Lomé, Cotonou, and Abidjan [4, 5]. A focused study on recurrence-associated factors would improve disease management.
Although newer therapeutic options such as immunosuppressants, retinoids, and phototherapy are available in developed countries [7, 8, 10], access remains limited in our setting. Janus kinase inhibitors and biologics have shown promise in a few reported cases [14-16].

Conclusion
As previously reported in studies from the subregion, MCL at CUDEV/CNHU-HKM more frequently affected young female patients, often preceded by psycho-emotional disorders. Several comorbidities were associated, including hepatitis B and C and diabetes. The classic cutaneous form was predominant, often with diffuse distribution. Corticosteroids were used in almost all cases, with a non-negligible recurrence rate.

Acknowledgments
We sincerely acknowledge the staff of the department of Dermatology-Venereology for their valuable support during data collection. The authors declare no conflict of interest.

Conflict of Interest
Not available

Financial Support
Not available

References
1. Gorouhi F, Davari P, Fazel N. Cutaneous and mucosal lichen planus: A comprehensive review of clinical subtypes, risk factors, diagnosis, and prognosis. *Sci* World *J.* 2014;2014:742826. DOI: 10.1155/2014/742826.
2. Diop A, Ly F, Ndiaye MT, Seck B, El Omari A, Diouf A, *et al*. Epidemiology, clinical features, and associated factors in 78 cases of lichen planus on black skin. Int J Dermatol. 2020;59(2):137-142.
3. Diabaté A, Kouabenan AAS, Gué I, Vagamon B, Boussou R. Profil épidémiologique et facteurs associés au lichen plan en Côte d'Ivoire. Rev Int Sci Med. 2018;20(2):136-139.
4. Teclessou JN, Akakpo AS, Saka B, Toure MA, Kombate K, Pitche P. Lichenoid dermatoses in hospitals in Lomé, Togo: 959 cases. Med Sante Trop. 2018;28(3):261-264.
5. Kouassi YI, Kouassi KAV, Gbandama KKP, Kourouma HS, Allou AS, Kaloga M, *et al*. Profil épidémiologique, clinique et thérapeutique du lichen plan en dermatologie au CHU de Treichville. Ann Afr Med. 2021;14(4):e4359-e4363. DOI: 10.4314/aam.v14i4.8.
6. Rosenbaum BE, Klein R, Hagan PG, Seadey MY, Quarcoo NL, Hoffmann R, *et al*. Dermatology in Ghana: a retrospective review of skin disease at the Korle Bu Teaching Hospital Dermatology Clinic. Pan Afr Med J. 2017;26:125. DOI: 10.11604/pamj.2017.26.125.10954.
7. Anttonen V, Pöykkö E, Kiviniemi E, Jokelainen J, Huilaja L, Sinikumpu SP. Characteristics, comorbidities, and treatment practices of lichen planus in Northern Finland: A register-based study among 619 subjects. Health Sci Rep. 2023;6:e1327. DOI: 10.1002/hsr2.1327.
8. Schwager Z, Stern M, Cohen J, Femia A. Clinical epidemiology and treatment of lichen planus: A retrospective review of two tertiary care centers. J Am Acad Dermatol. 2019;81(6):1397-1399. DOI: 10.1016/j.jaad.2019.04.027.
9. Ukonu AB, Uhunmwangho A. The prevalence of hepatitis C virus among lichen planus patients and its clinical pattern at the University of Abuja Teaching Hospital, Nigeria. Glob J Health Sci. 2012;4(5):113-119. DOI: 10.5539/gjhs.v4n5p113.
10. Schruf E, Biermann MHC, Jacob J, Häckl D, Reinhardt M, Hertl M, *et al* Lichen planus in Germany: Epidemiology, treatment, and comorbidity-a retrospective claims data analysis. J Dtsch Dermatol Ges. 2022;20:1101-1110.
11. Fonseca RL, Pendás LS, Pola GM. Risk of prediabetes and diabetes in oral lichen planus: A case-control study according to current diagnostic criteria. Diagnostics (Basel). 2023;13:1586. DOI: 10.3390/diagnostics13091586.
12. Moles GMÁ, Carrique DPT, García RP. Association of oral lichen planus with hepatic disorders and hepatocellular carcinoma: Systematic review and meta-analysis. Med Oral Patol Oral Cir Bucal. 2023;28(3):e229-e237.
13. Pitché P, Saka B, Kombate K, Walla TK. Traitement du lichen cutané étendu par le dipropionate et phosphate disodique de bétaméthasone: étude ouverte de 73 cas. Ann Dermatol Venereol. 2007;134(3):237-240.
14. Abduelmula A, Bagit A, Mufti A, Yeung KCY, Yeung J. The use of Janus kinase inhibitors for lichen planus: an evidence-based review. J Cutan Med Surg. 2023;27(3):271-276.
15. Tekin B, Xie F, Lehman JS. Lichen planus: what is new in diagnosis and treatment? Am J Clin Dermatol. 2024;25(5):735-764. DOI: 10.1007/s40257-024-00878-9.
16. Youssef S, Bordone LA. Oral to facitinib effectively treating eruptive and hypertrophic cutaneous lichen planus. JAAD Case Rep. 2023;37:16-20.

All Author's Name and Details
Bérénice Degboe
Professor, University Clinic of Dermatology and Venereology, Hubert Koutoukou Maga National and University Hospital Center (CNHU-HKM) of Cotonou / Faculty of Health Sciences, University of Abomey-Calavi, Benin

Dr. Kitha Pierre
Specialist Physician. University Clinic of Dermatology and Venereology, Hubert Koutoukou Maga National and University Hospital Center (CNHU-HKM) of Cotonou / Faculty of Health Sciences, University of Abomey-Calavi, PO Box 188, Benin

Dr. Assogba Diane
Specialist Physician, University Clinic of Dermatology and Venereology, Hubert Koutoukou Maga National and University Hospital Center (CNHU-HKM) of Cotonou / Faculty of Health Sciences, University of Abomey-Calavi, PO Box 188, Benin

Dr. Vigan Jean-Paul
Pharm D, Department of Pharmacy Education and Research, Faculty of Health Sciences, University of Abomey-Calavi, PO Box 188, Benin

Dr. Akpadjan Fabrice
Associate Professor, University Clinic of Dermatology and Venereology, Hubert Koutoukou Maga National and University Hospital Center (CNHU-HKM) of Cotonou / Faculty of Health Sciences, University of Abomey-Calavi, Benin

Dr. Adégbidi Hugues
Full Professor. University Clinic of Dermatology and Venereology, Hubert Koutoukou Maga National and University Hospital Center (CNHU-HKM) of Cotonou / Faculty of Health Sciences, University of Abomey-Calavi, PO Box 188, Benin

Dr. Atadokpèdé Félix
Professor. University Clinic of Dermatology and Venereology, Hubert Koutoukou Maga National and University Hospital Center (CNHU-HKM) of Cotonou / Faculty of Health Sciences, University of Abomey-Calavi, PO Box 188, Benin

How to Cite This Article
Degboe B, Pierre K, Assogba D, Vigan JP, Akpadjan F, Adégbidi H, Atadokpèdé F. Mucocutaneous lichen in pigmented skin: Epidemiological, clinical, and prognostic features at the university dermatology and venereology clinic of CNHU-HKM in Cotonou. International Journal of Dermatology, Venereology and Leprosy Sciences. 2026; 9(1): 01-05.