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Quality of Life in Patients with Diffuse Lichen Planopilaris: A Cross-Sectional Study of 87 Moroccan Cases

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ABSTRACT

Introduction: Diffuse lichen planopilaris (DLPP) is a rare inflammatory scalp disorder that leads to progressive scarring alopecia, affecting patients' physical and psychological well-being.

Objective: To assess quality of life (QoL) in Moroccan patients with DLPP and identify factors influencing their well-being.

Materials and Methods: A cross-sectional study included 87 patients with DLPP at Cheikh Khalifa and Mohammed VI International University Hospitals in Casablanca, Morocco. The Dermatology Life Quality Index (DLQI) was used to assess the impact of DLPP on daily activities, emotional health, and social interactions.

Results: The majority of patients were females (75.86%). Hair loss occurred in 90% of cases, with changes in hair quality (85.06%), pruritus (85.06%), and trichodynia (43.7%). Diffuse scales were visible in 87.36% of cases, with erythema present in 55.17%. Localized patches and early frontal fibrosing alopecia coexisted with DLPP in 6.9% and 65.52% of patients, respectively; 40.2% of patients had a DLQI >10, which indicates serious QoL impairment. The 'symptoms' domain was most affected, particularly among individuals with trichodynia (P=0.038) and changes in hair quality (P=0.009).

Conclusion: DLPP markedly reduced QoL, especially in symptomatic forms. Trichodynia and decreased hair quality significantly impacted daily functioning and leisure activities. Early diagnosis and management are crucial to preserve hair potential and protect mental health.

Introduction

Since Pringle's initial description of lichen planopilaris (LPP) in 1985 as a primary lymphocytic scarring alopecia, several variants have been identified based on the clinical distribution of the lesions. The classic form of LPP affects the scalp, particularly the vertex, in middle-aged females and males. Perifollicular erythema and hyperkeratosis are common signs of disease activity at the periphery of alopecic patches [1,2].

Frontal fibrosing alopecia (FFA) is considered a variant of LPP or a part of the same lichenoid spectrum, with similar trichoscopic and histopathologic features [1]. It predominantly affects postmenopausal females [3], with a distinct clinical presentation as a gradual recession of the frontotemporal hairline [4]. Loss of the eyebrows, eyelashes, and body hair is a common finding.

Recently, diffuse variants of LPP (DLPP) were described by Zinkernagel et al. [5] and Starace et al. [6]. These forms present as diffuse alopecia with perifollicular redness and follicular hyperkeratosis, along with histological features of LPP. Findings of androgenetic alopecia may also be present, which can delay diagnosis and allow progression to advanced stages of focal patches of cicatricial alopecia [6].

Pruritus and trichodynia are the primary symptoms identified in LPP variants [2]; these symptoms can lead to secondary scalp discomfort and ultimately increase the psychological burden of chronic, treatment-resistant cicatricial hair loss [7]. Consequently, these conditions not only impact physical appearance but can also have considerable psychological, social, and emotional effects [7].

Quality of life (QoL) impairment is well recognized in classic LPP; however, the impact of diffuse variants on QoL remains unknown.

Objectives:

This study aimed to investigate the psycho-emotional impact of DLPP on patients' QoL, and to explore the correlations between demographic and clinical findings and life quality outcomes.

Materials and Methods

We conducted a cross-sectional study over eighteen months (March 2024 to September 2024) in the specialized trichology consultation of the dermatology department at Cheikh Khalifa and Mohammed VI International University Hospitals, Casablanca, Morocco.

Study Population

All adults (≥18 years) with DLPP were included in the study.

Diagnosis was established by dermatologists experienced in hair disorders based on clinical findings (hair loss or thinning without a specific female or male pattern distribution, scalp pruritus, or scalp erythema) and trichoscopic features of LPP (perifollicular scales, erythema, and focal absence of follicular openings) [6]. In all patients, the diagnosis was confirmed by trichoscopy-guided scalp biopsy.

Patients with DLPP and coexisting patches of cicatricial alopecia or FFA were also included in the study, while those with classic LPP or FFA without DLPP were excluded.

Other exclusion criteria were age <18 years, uncertain diagnosis, or refusal to participate in the study.

Data Collection

After obtaining informed consent, data were collected from patients with confirmed DLPP, including their age, sex, medical history, areas of scalp or body involvement, subjective symptoms, and trichoscopic findings.

Disease Activity and QoL Assessment

Disease activity was assessed using the Lichen Planopilaris Activity Index (LPPAI) [8], which ranges from 0 to 10 and encompasses symptoms, clinical signs, and progression of hair loss.

QoL was evaluated using the validated Moroccan version of the Dermatology Life Quality Index (DLQI) [9]. The total score ranges from 0 (no impairment) to 30 (highest impairment). Two groups of patients were identified: those with low impact (DLQI ≤10) and those with high impact (DLQI >10).

Statistical Analysis

Data were analyzed using SPSS version 25.0. Clinical, DLQI, and epidemiological findings were compiled using descriptive statistics. Associations were evaluated using the independent samples t-test for quantitative variables and the chi-square test for categorical variables. A p-value <0.05 was considered statistically significant.

Ethical Considerations

The study adhered to the principles of medical research ethics and was approved by the Institutional Review Board of Mohammed VI University of Health and Sciences, Casablanca, Morocco (Approval No. CE/UM6SS/22/24).

Results

Eighty-seven patients were included: 75.86% were females, with a mean age of 37 ± 13.55 years, ranging from 18 to 73 years.

DLPP was incidentally diagnosed in 32.2% of cases based on trichoscopy and histopathology. Asymptomatic hair loss was the most common reason for consultation (48.28%), followed by symptomatic hair loss (26.4%). Onset was progressive in 94% of patients, and 72.41% reported a disease duration of over one year (Table 1).

The main complaints of patients were hair loss (90%), pruritus, and changes in hair quality (85.06%), with trichodynia occurring in 43.7% of cases, burning sensations in 33.33%, and dysesthesia in 29.90%.

Clinically, diffuse scaling was observed in 87.36% of patients, erythema in 55.17%, and a positive pull test in

Table 1. Demographic and clinical characteristics of patients with DLPP and correlation with DLQI score.

Patients' characteristics	No. of patients	Percentages	Correlation with DLQI p-value
Age			
< 25 years	15	17.2	0.42
25-45 years	49	56.3	
>45 years	23	26.4	
Sex			
Female	66	75.86	0.825
Male	21	24.14	
Circumstances of diagnosis			
Symptomatic hair loss	23	26.44	0.503
Asymptomatic hair loss	42	48.28	
Fortuitous discovery	28	32.18	
Symptoms and clinical signs			
Itching	74	85.06	0.171
Trichodynia	38	43.7	0.038
Hair loss	78	89.6	0.656
Change in hair quality	74	85.06	0.009
Burning sensation	29	33.3	0.122
Dysesthesia	26	29.9	0.091
Recession of the frontotemporal hairline	57	65.5	0.341
Erythema	48	55.2	0.105
Scales	76	87.4	0.409
Alopecic patches	6	6.9	0.240
Diffuse alopecia location			0.622
Vertex and frontal area	85	97.7	
Temporal area	68	78.1	
Occipital and parietal area	59	67.8	
Pull test	8	9.2	
Eyebrow involvement	86	98.85	0.457
Facial papules	12	13.79	0.343
Facial pigmentation	10	11.49	0.175
DLQI score			
Mild-to-moderate impact: DLQI score ≤ 10	52	59.8	
Major impact: DLQI score >10	35	40.2	

Abbreviations: DLPP: Diffuse variant of lichen planopilaris; DLQI: Dermatology Life Quality Index.

6.90%. Diffuse alopecia affecting <5% of the scalp was described in 93.10% of patients, in the frontal and vertex areas in 97.70%. Localized cicatricial patches occurred in 6.9% of cases in association with DLPP. Early FFA coexisted in 65.52%, with facial papules or pigmentation in 13.7%. Eyebrow loss affected 98.8% of patients.

Trichoscopy detected specific signs of DLPP, such as peri-follicular scales and erythema in 98.85%, focal absence of follicular openings in 97.70%, perifollicular white halo and hair casts in 95.40%, and pili torti in 90.80%.

The mean LPPAI score was 4.44 ± 1.15 (range: 1.75–7.00), indicating moderate to high disease activity. The mean DLQI score was 9.1, with 40.2% of patients having scores >10, indicating marked QoL impairment. The most affected DLQI domains were 'symptoms' (63.22%),'leisure' (28.74%), and 'daily activities' (27.59%).

QoL impairment correlated significantly with trichodynia (P=0.038) and altered hair quality (P=0.009) within the 'symptoms' domain. No other epidemiological or clinical factor showed any significant association (Table 1).

Discussion

Because DLPP was recently identified [6], its impact on QoL has not been previously studied.

Most studies on QoL impairment in patients with LPP have shown a significant impact, which aligns with our findings in DLPP, with 40.23% of patients having a DLQI score >10.

The impact was greatest in symptomatic forms, affecting daily activities and leisure, which is similar to the results reported by Nassimi et al. [10] in classic LPP.

Our cohort's average DLQI scores were higher than those found in other cicatricial alopecia studies [7] (Table 2). Our patients had DLPP with recruitment occurring at an early stage during trichology consultations, where trichoscopy is used for early diagnosis. The chronic relapsing nature of LPP in general, combined with the fact that 32.2% of cases were diagnosed incidentally, may have increased patients' concern.

The coexistence of LPP and FFA is rare. Corralo et al. [11] noted it in 16.5% of 103 females with FFA, while Starace et al. [6] also described it, but at a lower frequency. In contrast, our study identified this association in 65.52% of cases, which may have amplified disease impact in our population.

In this diffuse pattern, QoL impairment did not correlate with LPP activity or the presence of non-scalp lesions, which is consistent with Doche et al. [12] and Chiang et al. [13] in cicatricial alopecia. Nassimi et al. [10] described the opposite in classic LPP, reporting that higher disease activity was linked to greater QoL impairment. In addition, increased LPP activity and severity have also been associated with depression, anxiety, and reduced self-esteem [7].

Non-scalp lesions are known to predict higher QoL scores in FFA. Varghaei et al. [14] reported greater QoL impact (P=0.03) in patients with facial papules, nail, limb, or flexural involvement. Doche et al. [12] also described higher DLQI scores (P=0.02) in patients with non-scalp involvement. This finding, however, was not observed in our DLPP cases with concomitant FFA. This is likely because most coexisting FFA cases were in an early stage, when patients were unaware of the condition.

Study Limitations

The main limitation was the absence of a control group with other LPP variants or other forms of cicatricial alopecia.

Table 2. Average score of DLQI in studies conducted on patients with cicatricial alopecia, FFA, and LPP.

Author/country/year	The condition studied	Study type/number of cases	Average DLQI score
NASSIMI et al. Iran, 2018 [10]	LPP	Cross-sectional study of 41 patients	8.85
PORRINO BUSTAMANTE et al. Spain, 2023 [15]	FFA	Case-control study: 101 women with FFA and 40 healthy women	3.42
SACEDA CORRALO et al. 2018, Spain [11]	FFA	Cross-sectional study of 82 women	2
CHIANG et al. 2025, United kingdom [13]	Cicatricial alopecia	Cross-sectional study: 105 patients with PCA	6.66
DOCHE et al. 2022, Brazil [12]	LPP and FFA	Cross-sectional study: 27 patients with FFA	5.7 for FFA and 3 for LPP
Our study, 2025, Morocco	Diffuse variants of LPP	Cross-sectional study: 87 patients	**9.09**

Abbreviations: LPP: Lichen planopilaris; FFA: Frontal fibrosing alopecia; DLQI: Dermatology Life Quality Index.

Additionally, QoL was assessed solely with the DLQI score, without complementary tools to investigate anxiety or depression.

Conclusion

Diffuse LPP significantly impairs QoL, particularly in symptomatic cases where trichodynia and changes in hair quality impact daily activities and leisure. Prompt diagnosis with clinical evaluation and trichoscopy is key to preserving hair and preventing the psychological consequences of irreversible scarring.

References

1. Rajan A, Rudnicka L, Szepietowski JC, et al. Differentiation of frontal fibrosing alopecia and Lichen planopilaris on trichoscopy: A comprehensive review. *J Cosmet Dermatol.* 2022;21(6):2324-30. PMID: 34661965 DOI: 10.1111/jocd.14457
2. Fechine COC, Valente NYS, Romiti R. Lichen planopilaris and frontal fibrosing alopecia: review and update of diagnostic and therapeutic features. *An Bras Dermatol.* 2022;97(3):348-57. PMCID: PMC9133245 DOI: 10.1016/j.abd.2021.08.008
3. Armenores P, Shirato K, Reid C, Sidhu S. Frontal fibrosing alopecia associated with generalized hair loss: frontal fibrosing alopecia. *Australas J Dermatol.* 2010;51(3):183-185. PMID: 20695856 DOI: 10.1111/j.1440-0960.2010.00653.x
4. Kossard S. Postmenopausal frontal fibrosing alopecia: Scarring alopecia in a pattern distribution. *Arch Dermatol.* 1994;130: 770-774. PMID: 31926219 DOI: 10.1016/j.jaad.2019.12.056
5. Griggs J, Trüeb RM, Gavazzoni Dias MFR, Hordinsky M, Tosti A. Fibrosing alopecia in a pattern distribution. *J Am Acad Dermatol.* 2021;85(6):1557-64.
6. Starace M, Orlando G, Alessandrini A, Baraldi C, Bruni F, Piraccini BM. Diffuse variants of scalp lichen planopilaris: Clinical, trichoscopic, and histopathologic features of 40 patients. *J Am Acad Dermatol.* 2020;83(6):1659-67. PMID: 31706933 DOI: 10.1016/j.jaad.2019.11.006
7. Kelati A, Jafferany M. Quality-of-life assessment and the impact of early diagnosis and treatment in lichen planopilaris: a systematic review. *Clin Exp Dermatol.* 2024;50(1):146-9. PMID: 39152785 DOI: 10.1093/ced/llae339
8. Chiang C, Sah D, Cho BK, Ochoa BE, Price VH. Hydroxychloroquine and lichen planopilaris: Efficacy and introduction of Lichen Planopilaris Activity Index scoring system. *J Am Acad Dermatol.* 2010;62(3):387-92. PMID: 20061052 DOI: 10.1016/j.jaad.2009.08.054
9. Khoudri I, Lamchahab FZ, Rmili M, Ismaili N, Hassam B, Abouqal R. Traduction, adaptation transculturelle et validation de la version arabe pour le Maroc du Dermatology Life Quality Index (DLQI). *Revue d'épidémiologie et de santé publique.* 2009;57:S35. Doi : 10.1016/j.respe.2009.02.122
10. Nasimi M, Ahangari N, Lajevardi V, Mahmoudi H, Ghodsi SZ, Etesami I. Quality of life and mental health status in patients with lichen planopilaris based on Dermatology Life Quality Index and General Health Questionnaire-28 questionnaires. *Int J Womens Dermatol.* 2020;6(5):399-403. PMCID: PMC8060658 DOI: 10.1016/j.ijwd.2020.09.005
11. Saceda-Corralo D, Pindado-Ortega C, Moreno-Arrones ÓM, et al. Health-Related Quality of Life in Patients With Frontal Fibrosing Alopecia. *JAMA Dermatol.* 2018;154(4):479. PMCID: PMC5876853 DOI: 10.1001/jamadermatol.2017.6330
12. Doche I, Romiti R, Rivitti-Machado MC, et al. MK. Quality-of-life impairment is not related to disease activity in lichen planopilaris and frontal fibrosing alopecia. Results of a preliminary cross-sectional study. *J Eur Acad Dermatol Venereol.* 2022;36(4):e288-e290. PMID: 34753220 DOI: 10.1111 /jdv.17798
13. Chiang YZ, Bundy C, Griffiths CEM, Paus R, Harries MJ. The role of beliefs: lessons from a pilot study on illness perception, psychological distress and quality of life in patients with primary cicatricial alopecia. *Br J Dermatol.* 2015;172(1):130-7. PMID: 25039441 DOI: 10.1111/bjd.13259
14. Varghaei A, Rostami A, Yarmohamadi M, Mahmoudi H, Balighi K, Daneshpazhooh M. Assessment of health-related quality of life in patients with frontal fibrosing alopecia. *J Cosmet Dermatol.* 2022;21(11):6169-73. PMID: 35757901 DOI: 10.1111 /jocd.15183
15. Porriño-Bustamante ML, Montero-Vílchez T, Fernández-Pugnaire MA, Arias-Santiago S. Frontal Fibrosing Alopecia Quality of Life Index: A Validated Disease-Specific Questionnaire Involving Women. *J Clin Med.* 2023;12(3):824. PMCID: PMC9917648 DOI: 10.3390/jcm12030824