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Histopathological Profile of Psoriasiform Disorders in Abuja, Nigeria: A Ten-Year Review

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ABSTRACT

Introduction: *Psoriasiform disorders are a group of inflammatory skin conditions characterised by a shared histopathological reaction pattern. Data describing their demographic and histopathological profile from private pathology laboratories in Nigeria remain limited, as most existing studies are drawn from tertiary hospital settings.*

Objective: *To describe the age, sex, biopsy procedure, and anatomical site distribution of psoriasiform disorders diagnosed at Histoconsult, a private pathology laboratory in Abuja, Nigeria.*

Methods: *This was a retrospective, descriptive cross-sectional study of 190 histologically confirmed cases of psoriasiform disorders diagnosed at Histoconsult over 10 years from January 2016 to December 2025. Data on patient age, sex, biopsy procedure, and anatomical site were extracted from archived histopathology records and analysed using descriptive statistics.*

Results: *Patients aged 30–49 years accounted for the largest proportion of cases (25.8%), followed closely by those aged 10–29 years (25.3%); age was unrecorded or indeterminate in 29.4% of cases. Sex distribution was nearly equal, with males comprising 49.5% and females 48.4% of cases. Punch biopsy was the predominant sampling procedure (56.3%), followed by shave biopsy (42.1%), while incisional, excisional, and other procedures were rare (0.5% each). The scalp (18.4%), lower limb (17.9%), and upper limb (17.4%) were the most frequently biopsied anatomical sites, though the site was unspecified in 21.1% of cases.*

Conclusion: *Psoriasiform disorders in this private laboratory cohort predominantly affected young to middle-aged adults, with a nearly balanced sex distribution and a predilection for the scalp and limbs, consistent with broader literature. However, a substantial proportion of records lacked complete demographic and anatomical data, highlighting the need for standardised histopathology documentation practices. These findings contribute epidemiological data from an underrepresented segment of Nigeria's pathology service landscape.*

Keywords: *Histopathology; Nigeria; Private pathology laboratory; Psoriasis; Psoriasiform disorders; Skin biopsy.*

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INTRODUCTION

Psoriasis is a chronic, immune-mediated inflammatory skin disorder characterised histologically by a psoriasiform reaction pattern, including epidermal hyperplasia, parakeratosis, and dermal inflammatory infiltrates {1}. It affects an estimated 125 million people globally, with prevalence varying markedly by geography and ethnicity, ranging from under 0.1% in parts of East Asia to over 4% in Scandinavian countries {1}. This wide variation has been attributed to genetic, environmental, and diagnostic factors, including differences in access to dermatological and dermatopathological expertise {1}.

In sub-Saharan Africa, psoriasis and psoriasiform disorders are reported far less frequently than in Western populations, a pattern often linked to underdiagnosis, misclassification as other papulosquamous conditions such as tinea corporis, and a scarcity of dermatologists and dermatopathologists across the region {2}. Within Nigeria specifically, hospital-based studies have similarly documented a comparatively low but clinically significant burden of psoriasis, with a male preponderance and onset most often in early to middle adulthood {3}.

Histopathological evaluation remains the diagnostic gold standard for psoriasiform disorders, particularly in cases with atypical or overlapping clinical presentations {4}. However, data describing the histopathological and demographic profile of psoriasiform disorders diagnosed through private pathology services in Nigeria remain limited, with most existing Nigerian studies drawn from tertiary hospital dermatology clinics rather than independent diagnostic laboratories {5}. This gap limits understanding of how psoriasiform disorders present across different levels of the Nigerian healthcare system.

This study therefore aims to describe the age, sex, biopsy procedure, and anatomical site distribution of psoriasiform disorders diagnosed at a private pathology laboratory in Abuja, Nigeria, contributing histopathology-based epidemiological data from a healthcare setting that is underrepresented in the existing literature.

MATERIALS AND METHODS

This was a retrospective, descriptive cross-sectional study conducted at Histoconsult, a private histopathology diagnostic

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laboratory in Abuja, Federal Capital Territory, Nigeria. The laboratory receives skin biopsy specimens referred from dermatology and general outpatient clinics across Abuja and its environs.

Histopathology records of all skin biopsies reported as psoriasiform disorders over 10 years, from January 2016 to December 2025, were reviewed.

A total of 190 histologically confirmed cases of psoriasiform disorders were retrieved from Histoconsult's archived records and included in the study.

All skin biopsy reports with a histopathological diagnosis within the psoriasiform disorder spectrum were included, irrespective of patient age or sex. Reports with incomplete histopathological data, illegible or missing request forms, or inadequate/non-diagnostic tissue samples were excluded from the analysis.

Relevant data were retrieved from archived histopathology request forms and laboratory report registers at Histoconsult, including patient age, sex, type of biopsy/procedure performed, and anatomical site of the lesion biopsied. Data were extracted using a structured proforma, entered into a Microsoft Excel spreadsheet for coding and cleaning, and analysed using SPSS version 26.0 (IBM Corp., Armonk, NY, USA). Results were presented through descriptive statistics, encompassing percentages and means, along with the use of simple charts and tables.

Ethical approval was obtained, and confidentiality was ensured through anonymisation of all study data and exclusion of personally identifiable information.

RESULTS

A total of 190 histologically confirmed cases of psoriasiform disorders were reviewed (Table 1). The largest proportion of patients were aged 30–49 years (49, 25.8%), followed closely by those aged 10–29 years (48, 25.3%). Together, these age groups accounted for 51.1% of all cases. Forty-seven patients (24.7%) were recorded as adults of unspecified age, while 22 (11.6%) were aged 50–69 years and 14 (7.4%) were younger than 10 years. Only one patient (0.5%) was aged ≥70 years, while age was completely unrecorded in nine cases (4.7%).

Table 1.0: Age Distribution of Patients with Psoriasiform Disorders

Age Group	Frequency	Percent (%)
<10	14	7.4
10–29	48	25.3
30–49	49	25.8
50–69	22	11.6
≥70	1	0.5
Adult – unknown age	47	24.7
Age unknown	9	4.7
Total	**190**	**100.0**

There was an almost equal sex distribution, with 94 males (49.5%) and 92 females (48.4%), giving a male-to-female ratio of 1.02:1. Sex was not documented in four cases (2.1%) (Figure 1).

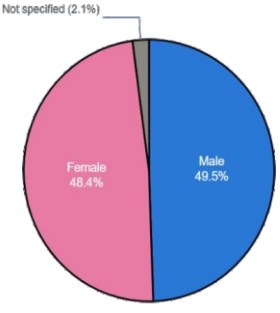

Figure 1.0: Sex Distribution of Patients with Psoriasiform Disorders

Punch biopsy was the most frequently used sampling technique, accounting for 107 cases (56.3%), followed by shave biopsy in 80 cases (42.1%) (Figure 2). Incisional, excisional, and other biopsy techniques were each used in one case (0.5%).

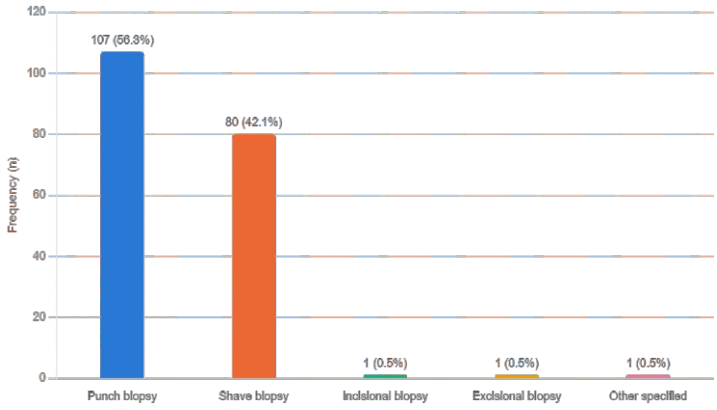

Figure 2.0: distribution of the psoriasiform disorders by biopsy procedure

The anatomical site of biopsy was not documented in 40 cases (21.1%) (Figure 3). Among cases with a specified site, the scalp was the most frequently biopsied location (35, 18.4%), followed by the lower limb (34, 17.9%) and upper limb (33, 17.4%). Biopsies from multiple anatomical sites accounted for 20 cases (10.5%). Other sites included the face (8, 4.2%), buttock (6, 3.2%), groin/genital/perineal region (5, 2.6%), neck (2, 1.1%), and axilla, back, chest/breast, and shoulder/clavicle (one case each, 0.5%).

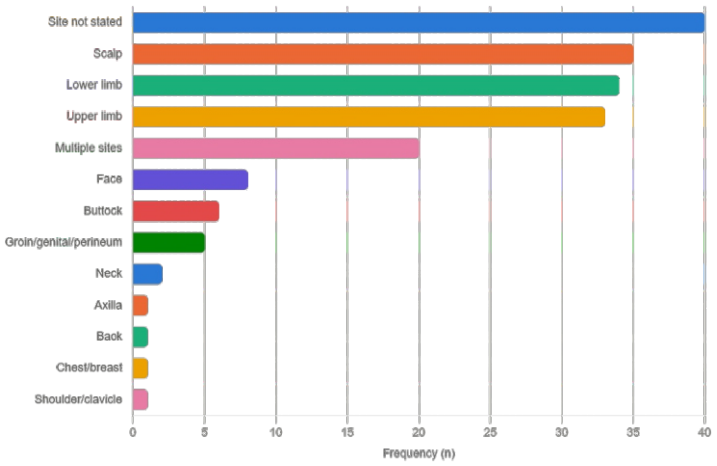

Figure 3.0: Anatomical Skin Site Distribution of Psoriasiform Disorders

DISCUSSION

This retrospective study of 190 histologically confirmed cases of psoriasiform disorders provides useful pathology-based data from a private diagnostic laboratory in Abuja, a setting that is relatively underrepresented in Nigerian dermatopathology literature. Previous Nigerian studies have largely been hospital- or dermatology clinic-based, although recent histopathological series demonstrate the value of laboratory-based surveillance of skin diseases {6-8}.

The predominance of cases among patients aged 10–49 years is broadly consistent with the recognised age distribution of psoriasis and related psoriasiform disorders. A Nigerian histopathological study of plaque psoriasis reported a mean age of approximately 40 years and an almost equal male-to-female ratio {9}. Earlier Nigerian studies also reported psoriasis predominantly among young and middle-aged adults, although the peak age varied between populations[10,11].

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More broadly, international studies demonstrate considerable geographic and age-related variation in psoriasis occurrence {12,13}. However, the substantial proportion of patients with incomplete age information in the present study limits more precise age-specific comparisons.

The almost equal sex distribution in our series is noteworthy and is comparable to findings from previous Nigerian histopathological studies of psoriasis {9}. This contrasts with the male predominance reported in some earlier Nigerian psoriasis studies {10,11}. Such differences may reflect variations in case ascertainment, referral patterns, study setting, or the broader range of psoriasiform disorders represented in a pathology laboratory. Nigerian histopathological studies of non-neoplastic skin disease have likewise demonstrated relatively balanced sex distributions in some cohorts {7}.

Punch biopsy was the predominant sampling method in the present study. This is consistent with its established usefulness in inflammatory dermatoses, where an appropriately selected punch specimen generally provides adequate epidermal and dermal tissue for architectural assessment[14]. The relatively high use of shave biopsy may reflect local practice and the clinical characteristics of lesions submitted for histopathological evaluation. Accurate interpretation nevertheless depends on appropriate biopsy site, timing, specimen depth and adequate clinical information {14}.

The scalp and limbs were the most frequently documented biopsy sites in this study. This distribution is compatible with the recognised involvement of the scalp and extremities in psoriasis and several other psoriasiform disorders {9,15}. However, anatomical-site information was unavailable in 21.1% of cases, limiting the reliability of site-specific comparisons. Similar documentation limitations have been reported in Nigerian histopathology series {8}. The diagnostic interpretation of psoriasiform lesions can also be challenging because several inflammatory dermatoses share overlapping clinical and histopathological features {15,17}. A large retrospective study of histopathologic psoriasiform dermatitis further demonstrated the heterogeneity of final clinical diagnoses, underscoring the importance of clinicopathological correlation {18}.

The substantial proportion of incomplete demographic and anatomical information is an important finding. Previous Nigerian studies have identified limitations in clinical documentation and clinicopathological concordance {19}. Improving the completeness of histopathology request forms, particularly documentation of age, lesion duration, morphology, anatomical site, provisional diagnosis and relevant treatment history, would strengthen diagnostic accuracy and the epidemiological value of pathology databases.

This study has several limitations. Its retrospective, single-laboratory design limits generalisability, and the findings should not be interpreted as population prevalence estimates. Reliance on archived pathology records also limited assessment of disease duration, severity, treatment history and clinicopathological concordance. Missing age and anatomical-site information may have introduced reporting bias. In addition, the study represents cases selected for biopsy and therefore may not reflect the full clinical spectrum of psoriasiform disorders in the community.

CONCLUSION

This study provides useful histopathology-based data on psoriasiform disorders from a private pathology laboratory in Abuja. Cases predominantly involved younger and middle-aged patients, with an almost equal sex distribution and punch biopsy as the principal sampling technique. The findings are broadly consistent with available Nigerian and international literature but also highlight important gaps in clinical documentation. Standardised dermatopathology request forms, improved clinicopathological communication and multicentre studies incorporating both public and private laboratories are recommended to strengthen dermatopathological surveillance and improve understanding of psoriasiform disorders in Nigeria.

Recommendations: Pathology laboratories in Nigeria, both private and hospital-based, should adopt standardised histopathology request forms to reduce missing data on age, sex, and biopsy site. Clinicians should ensure that complete clinical information accompanies biopsy submissions. Future research should be multicentre, combining private and tertiary hospital data across Nigeria's geopolitical zones, and should include clinicopathological concordance assessment and prospective follow-up to capture disease severity and treatment outcomes. Continued investment in dermatopathology training and services is also encouraged, alongside further study into the near-equal sex distribution observed here, which contrasts with the male predominance reported in most Nigerian and sub-Saharan African literature.

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Conflict of Interest: None.

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