Lichen Planopilaris (LPP) in women with Afro-textured hair

Scalp oils: a therapeutic or harmful catalyst for LPP?

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None.

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Objective

The objective of the study is to determine whether the influence of scalp oils are a contributory factor in the cause and severity of the scarring hair loss condition Lichen Planopilaris (LPP).

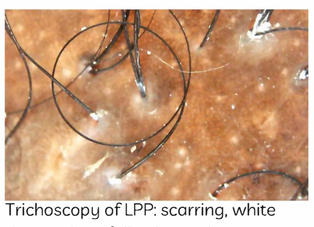
Introduction

Over the last five years we have observed a rise in the number of young women of colour with Afro-textured hair presenting with the scarring condition lichen planopilaris (LPP), to the extent that LPP is now more common than the central centrifugal cicatricial alopecia (CCCA) in this patient group. These women exhibit small to large patches of cicatricial hair loss on the scalp and experience symptoms including varying degrees of shedding, pain, and itching.

Trichoscopy of LPP: scarring, white dots and perifollicular scaling is seen.

The recent increase in the frequency of LPP raises the possibility of an environmental cause. A common feature in these patients is the application of hair oils to the scalp and a tendency to infrequent hair washing. These practices are based on the belief that frequent washing may lead to loss of essential oils from hair that is characteristically already dry. Additionally, oiling the scalp is thought to be therapeutic and have stimulating benefits.

Many hair products formulated for Afro textured hair contain chemicals that are considered carcinogenic and or hormone disrupters, leading to increased risk of medical issues such as fibroids. [1] Overuse of braids, weaves and extensions, coupled with bad haircare practices, has led to an over-reliance on products. And the cultural, historical and societal pressures black women face, when it comes to their hair only exacerbate the problem.[2]



Trichoscopy of LPP: scarring, white dots and perifollicular scaling is seen.

Furthermore, it is worth noting that the manner in which black women utilise beauty products is distinct. These products are utilised frequently and generously, and may be left on for extended periods of time, with intermittent reapplication. Despite ongoing research into the individual chemicals contained within these products, there appears to be a dearth of information regarding the cumulative effects and potential risks associated with this method of product use. This is a cause for concern as black hair products are found to be some of the most toxic beauty products.[3]

Methodology

This study used mixed methods, that utilised descriptive methods to collect and analyse data through systematic sampling of patients with a diagnosis of LPP. A total of 60 patient records were examined to include the age range 20-59 and hairstyling practices pre-clinic visit. The patient cohort of 60 were drawn equally from patients from Kenya and UK to determine whether there were any significant differences between both populations.

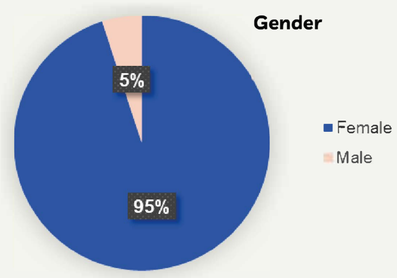
Data was extracted from the patient case history consultation forms to complete a specific set of questions adapted from LPPAI questionnaire.[4] The information drawn from the UK patient case history forms provided additional data also included in the study. All patients in the cohort are new or existing patients seen in clinic between March 2022 and April 2023.

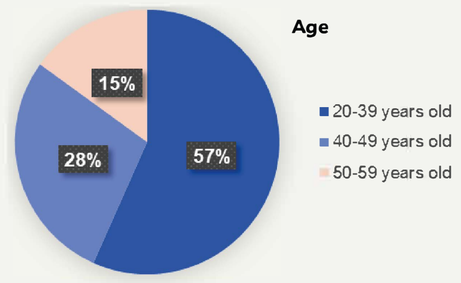
Limitations

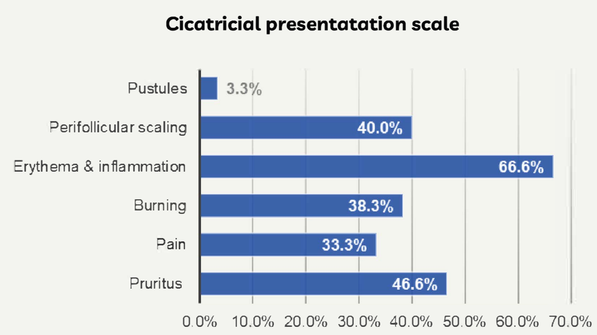
The clinic outcomes for the Kenyan patients were not documented due to the limited time duration of this study.

Results

Our results are consistent with most studies that show LPP is most prevalent in women than men (n =19:1) however, in contrast to some studies[5] the age of onset in this population was below <39, representing 56.6% (n = 34) of the total cohort with a mean age of 39.5. An adapted simplified version of the LPPAI scale was used to assess the signs and symptoms of LPP. Due to the time constraints some questions were omitted from the Kenyan participants but is intended to be followed up in a longer, larger study.



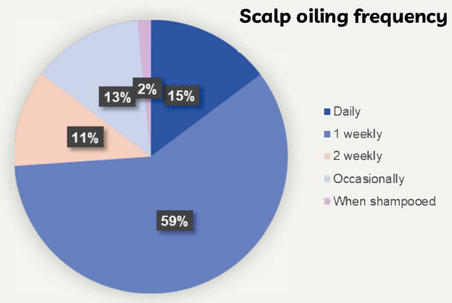


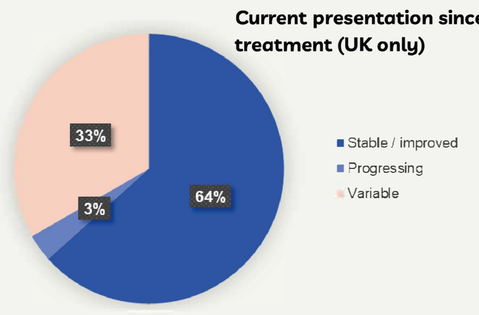


The majority of UK patients at the initial consultation described the severity of their symptoms as moderate 66.6% (n = 20) and in both groups 66.6% (n = 40) of the overall cohort presented with erythema and inflammation. Erythema may show as hypo or hyper-pigmented in darker skinned individuals. The UK patients presented with greater pruritus 86% (n = 26.6), burning 66% (n = 20) and perifollicular scaling 76.6% (n = 23) than the Kenyan patients accounting for 5% (n = 3) or below.

Both groups shared a similarity in that all patients (100%) oiled their scalp, with 75% overall (n = 45) doing so at least once or more a week.

All of the UK patients were provided at the initial consultation with guidance on scalp care, including the recommendation to wash their hair at least once a week and to refrain from applying any scalp oils.





At subsequent follow-up appointments only 3.3% (n =1) reported their condition had worsened, while 63.3% (n = 19) described their symptoms as stable (improved), and 33.3% (n = 10) as variably. It is worth noting that only 26.6% (n = 8) of these patients have received topical or intralesional steroid treatment from a general practitioner or a dermatologist.

Conclusion

In light of the lack of more comprehensive clinical data that establishes a correlation between the use of scalp oils and LPP, it would be prudent for clinicians to exercise caution and ask patients to avoid oiling the scalp. Presently, there is inadequate evidence to substantiate a direct causal relationship between the use of scalp oils and LPP . While it is plausible that scalp oil exposure may play a role in the development of LPP in patients with other predisposing factors, this association remains speculative and warrants further investigation.

The study did not ascertain the types of oils patients were applying but a point to note is that 100% of the cohort oil their scalps with different oils believing this to be therapeutic and support healthy hair growth.

This small study highlights the fact that LPP is common in younger black women both in the UK and Kenya. A secondary objective of a further study is to examine how the prevalence LPP can be mitigated and whether severity of the signs and symptoms are reduced when the patient ceases the use of scalp oils.

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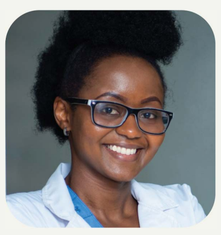

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References

[1] https://www.sciencedirect.com/sdfe/arp/cite?pii=S0013935118301518&format=text/plain&withabstract=true
[2] Okogwu, T (2018) Black Hair Products Dangers & Health Concerns https://www.refinery29.com/en-us/black-hair-products-dangers-health Accessed 29.04.23
[3] Nourbese N Flint MA & Teniope Adewumi MS (2016) Natural evolutions - One Hair Story (2016) https://dataspace.princeton.edu/bitstream/88435/dsp01x633f426w/1
[4] Chiang et al, 'Hydroxychloroquine and lichen planopilaris: Efficacy and introduction of Lichen Planopilaris Activity Index scoring system', J Am Acad Dermatol 2010;62:387-92
[5] Rucker Wright D, Gathers R, Kapke A, Johnson D, Joseph CL. Hair care practices and their association with scalp and hair disorders in African American girls. J Am Acad Dermatol. 2011 Feb;64(2):253-62. doi: 10.1016/j.jaad.2010.05.037. Epub 2010 Aug 21. PMID: 20728245.