Brief Report

Overlapping alopecias: More common than expected!

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ABSTRACT

Hair loss in females is very common and distressing. A retrospective analysis of scalp biopsies in females with recalcitrant and persistent hair loss brought out the interesting finding of overlapping alopecias in almost half of the study population. Trichoscopy can be an additional aid in highlighting the coexistence of different alopecias in the same patient.

Keywords: Alopecia, Trichoscopy, Androgenetic alopecia, Alopecia areata, Telogen effluvium

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INTRODUCTION

Hair loss in women is as common as it is distressing. While the diagnosis has traditionally been based on a detailed history and a clinical examination, with histopathology added for inconclusive cases, the availability of trichoscopy as a non-invasive clinical tool[1,2] has hugely boosted the diagnostic accuracy. Also, a biopsy is recommended to settle the issue where trichoscopy shows features not limited to a single condition.[1] We present here, a retrospective analysis of scalp biopsies from patients showing more than one type of alopecia on trichoscopy. The findings of this large series lead us to conclude that a biopsy may not only be used to differentiate between types of alopecias, but equally to confirm a true overlap,[3] which may be much more common than anticipated.

MATERIALS AND METHODS

We conducted a retrospective chart review of clinicopathological data of consecutive scalp biopsies from women presenting to our clinic with hair loss, from January to August 2021. The preliminary diagnosis was based on history and clinical examination, with characteristic trichoscopic features used to designate the definitive diagnosis.[1] Women presenting with persistent hair loss, those not improving with conventional treatment, and those with trichoscopic features suggestive of overlap of more than one type of hair loss, were considered for biopsy, from the most representative site as guided by trichoscopy. The data was analysed using SPSS software, and the clinical relevance was discussed.

RESULTS

A total of 255 biopsies were available for evaluation. The median age was 27 years and the total duration of hair fall was, on average 30.03 months (±29.54), with a median of 24 months. 81 (31.8%) patients reported an acute exacerbation, of an average of 6.44 months (±6.5). Women with a longer duration

of hair fall, seemed to have a significantly higher likelihood of having an acute exacerbation at the time of presenting, and to have a family history of hair loss, both $P < 0.001$.

Based on trichoscopic findings, clinical suspicion of overlapping alopecias was raised in 96.5% (246 out of 255 cases), while the remaining nine cases were considered for biopsy owing to their refractory and persistent nature. On histopathology, overlapping alopecias were reported in 44.3% of cases [Table 1]. Overlapping alopecias were not more common in patients who had had COVID in the recent past, 6.7% (17 out of 255), or in those with a family history ($P = 0.383$). However, patients with overlapping alopecias on biopsy had a significantly longer overall duration of hair fall, 34.69 ± 33.50 months, compared to 26.32 ± 25.48 months, in those with a single diagnosis on histopathology, $P = 0.022$. Acute exacerbations were not more common in those with overlap syndromes ($P = 0.400$), though more common in those with a recent history of COVID, as may be expected ($P = 0.013$)

DISCUSSION

The diagnosis of hair loss is predominantly done with trichoscopy world over. A biopsy is recommended as the gold standard to differentiate between different types of hair loss[1] when more than one diagnosis is considered. Here, we considered the possibility of using histopathology as a way of identifying overlapping alopecias, rather than only to differentiate between two possible trichological diagnoses. Understanding the overlap may be of great clinical advantage, from avoiding agents that can worsen telogen

effluvium in a subject having an overlap of androgenetic alopecia (AGA) with telogen effluvium (TE), to considering the option of immunomodulating drugs, when there is an element of autoimmune alopecia, even when dominated by a stronger presence of AGA. There is at present minimal data on the proportion of true overlap syndromes as evidenced by histopathology,[2,4] and our study identifies several types of overlaps beyond the clinically expected combination of AGA and TE alone,[4] in keeping with the multifactorial nature of hair loss in women.

CONCLUSION

To conclude, overlap in roughly half the studied biopsies indicates that overlapping alopecias are quite common.

A biopsy may be used, especially in those with longstanding hair loss, to understand the predominant pattern, but also acknowledge that other pathophysiologies may coexist to present a true overlap of more than one type of alopecia.

Declaration of patient consent

The authors certify that they have obtained all appropriate patient consent.

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Conflict of interest

There are no conflicts of interest.

Table 1: Frequency of different alopecias on histopathology

Histopathological diagnosis	Frequency, n (%)
AGA with CTE overlap	87 (34.1%)
AGA with AA overlap	4 (1.6%)
AGA with CTE and diffuse AA overlap	16 (6.3%)
CTE with AA overlap	2 (0.8%)
AGA with tractional alopecia overlap	3 (1.2%)
CTE with tractional alopecia overlap	1 (0.4%)
AGA only	111 (43.5%)
CTE only	27 (10.6%)
AA only	3 (1.2%)
Others (LPP)	1 (0.4%)
Total	255

AGA- Androgenetic alopecia, CTE- Chronic telogen effluvium, AA- Alopecia areata, LPP- Lichen planopilaris

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