A Case of Altered Hair Texture After Resolution of Alopecia Areata

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Alopecia areata is a non-cicatricial alopecia that has a prevalence of approximately 0.1% to 0.2% in the US population.\(^1\)

Usually, up to 50% of patients recover within 1 year of treatment, but spontaneous remissions and frequent relapses have been reported in up to 90% of cases.\(^2,3\)

The chronic relapsing nature of alopecia areata and its profound effect on physical appearance make its development a distressing and life-changing event for many affected individuals.\(^4\)

Introduction

During recovery and regrowth, the new hair can have a smaller shaft size and may show pigment alternations ranging from total achromia to mild hypopigmentation with a tendency toward total repigmentation over time. 1,2

Usually, the shape of the new hair (ie curly or striaght) after regrowth is usually similar to the shape of the hair prior to the alopecia areata episode. 2,3

Herein, we will discuss a case of altered hair texture and shape after resolution of alopecia areata

14 year old African American male with a baseline of coarse curly hair presented with a 6 month history of alopecia areata.

Treatment with topical steroids and intra-lesional steroids was begun.

After 2 months of therapy, substantial regrowth of hair was observed.

Interestingly, there was alteration in the hair shape and texture following regrowth.

The patient’s coarse curly hair grew back fine and straight.

This change was limited to the area of the scalp affected by the alopecia areata.

The texture and shape of the surrounding hair was maintained.
Clinical Findings

At 3 months: note the straight hair with pigment alteration at the site of the alopecia areata. Unaffected areas have coarse/curly hair.
Discussion

In alopecia areata, immune dysregulation consisting of cytokines, hormones and T cells cause the hair cycle to become dysfunctional. ¹,²

Recent work on hair follicle development has suggested that each hair cycle is a distinct event. ³

During each hair cycle, the hair stem cells migrate from the bulge to promote new hair follicle growth. This is influenced by growth factors and cytokines. ³

Discussion

- Acquired straightening of the hair has been observed in those with human immunodeficiency virus and those with chronic malnutrition. Mineral deficiencies and hormonal dysfunction has been thought to play a role.¹ ²

- The exact mechanisms leading to texture change in our patient are unknown

- This change may be at the level of the hair stem cells, cytokines, or hormones.³

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Conclusion

More research is needed to determine triggers for change in hair texture in alopecia areata.

Given the interest of individuals in changing their hair texture, the above can have a significant impact on the hair styling industry.