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HAIR DISORDERS

TO STUDY SULFOTRANSFERASE ACTIVITY LEVELS IN PLUCKED HAIR FOLLICLES OF ANDROGENIC ALOPECIA PATIENTS IN INDIAN SUBCONTINENT

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Introduction: Several studies established that sulfotransferase enzyme activity in the outer root sheath of plucked hair follicles predicts response to topical minoxidil in the treatment of pattern hair loss; however, the prevalence of this enzyme activity among Indian patients has not been studied. We characterise sulfotransferase levels in 120 patients of pattern hair loss with regards to the activity based on sex, age, duration of hair loss, grade of hair loss and family history.

Method: One hundred twenty patients above 18 years of age with patterned hair loss treated or untreated were included in the study after obtaining informed consent. A total of 75 men and 45 women were recruited. Eight to ten hair samples were plucked with the help of tweezers from the border between the most prominent area of thinning and non-thinning at the vertex/mid-scalp and inspected visually for an intact bulb. Suitable anagen hairs were processed for sulfotransferase assay analysis.

Result: Overall, 40.83% of patients with AGA had low level of sulfotransferase (AU<0.4). Surprisingly, 49.3% men had low levels of sulfotransferase (i.e., OD<0.4) vs 26.6% of women No correlation was found between sulfotransferase activity and age, duration of hair loss, grade of hair loss or family history.

Conclusion: Our study shows high prevalence of patients having low levels of sulfotransferase activity in Indian population. Thus, it is high time to reconsider minoxidil as monotherapy for patterned hair loss. Sulfotransferase activity assay before commencement of therapy would be of great help in ruling out non-responders and also prescribing the accurate dose of minoxidil to AGA patients. Our study is first of its kind to characterise sulfotransferase activity levels.





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