

HAIR DISORDERS

## STUDY OF SERUM VITAMIN D LEVELS IN MEN WITH PREMATURE ANDROGENETIC ALOPECIA

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**Introduction:** Premature androgenetic alopecia (AGA) is a hereditary, androgen-dependent hair-loss occurring before the age of 30 years. Lack of vitamin D receptors reduces hair follicle growth, and an optimum concentration of Vitamin D3 is essential to delay aging and hair loss. However, no studies have been done to evaluate Vitamin D levels in AGA.

**Objective:** To evaluate the levels of serum Vitamin D in patients with premature AGA and to compare it with age matched men without any hair loss.

**Materials and Method:** Fifty men with premature AGA were taken as cases and 50 age matched men without any hair-loss were recruited as controls. Their clinical profile and average duration of daily sun-exposure was noted. The serum concentrations of Vitamin D were measured and compared with controls.

**Results:** The mean age of the cases was 23.4 years and that of controls was 24.2 years. Family history of AGA was present in 22% of the cases. Maximum number of patients had grade IV alopecia (32%), followed by grade III (30%), grade V (24%), grade VI (10%), grade VII (4%). The mean levels of serum Vitamin D were significantly decreased in cases as compared to controls ( 23.21 vs 42.32 nmol/L ;  $p = < 0.001$ ). Seventy eight % of the cases had deficiency of Vitamin D (  $< 30$  nmol/L ) , while 12% had insufficient Vitamin D (30-50 nmol/L). There was a positive correlation between Vitamin D deficiency and severity of grade of AGA.

**Conclusion:** Men with premature AGA are deficient in serum Vitamin D levels. Vitamin D could play an important role in the pathogenesis of premature AGA, and supplementing men with premature AGA with Vitamin D could be beneficial.