



ORIGINAL RESEARCH PAPER

Dermatology

STUDY OF VITAMIN D LEVELS IN MEN WITH PREMATURE ANDROGENETIC ALOPECIA

KEY WORDS: Androgenetic alopecia, Serum Vitamin D levels.

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ABSTRACT

Androgenetic alopecia is common dermatological problem among the young to middle aged population. Androgenetic alopecia is labeled as 'premature' or 'Early' androgenetic alopecia when the onset of disease is before 30 years of age. There is very little data available regarding the role of vitamin D in the Premature androgenetic alopecia. Vitamin D deficiency is diagnosed when the levels of vitamin D in the serum is <30 ng/ml. This study focuses on establishing association between serum vitamin D levels and severity of premature androgenetic alopecia.
Conclusion: Vitamin D plays a major role in premature onset of androgenetic alopecia.

INTRODUCTION:

Premature androgenetic alopecia is patterned hair loss occurring before the age of 30 years. Premature androgenetic alopecia in men is frequently reported as phenotypic equivalent of Polycystic ovarian syndrome (PCOS) in women, which carries the risk of developing obesity, metabolic syndrome & cardiovascular diseases.

Normal levels of serum vitamin D is >30 ng/ml. Vitamin D deficiency is defined as 25(OH)D of <20 ng/ml. vitamin D insufficiency is recognized as 25(OH)D of 21-29 ng/ml. Vitamin D plays an important role in immune regulation, cell growth, differentiation, and maintenance of hair cycle. Vitamin D deficiency is associated with various hair loss disorders such as telogen effluvium, alopecia areata [2][7] and female pattern hair loss [1][3].

However, Data on association between Premature Androgenetic alopecia in men & vitamin D levels in the blood is relatively scarce.

AIMS & OBJECTIVES:

To measure the vitamin D levels in men with premature Androgenetic alopecia & to demonstrate its relation with severity of disease.

Study Design:

Longitudinal follow up.

Study Population:

Patients of premature androgenetic alopecia attending dermatology OPD at Dr. Panjabrao Deshmukh Medical College, Amravati during the period of December 2020 to June 2021.

Study Setting:

Tertiary care hospital.

Inclusion Criteria:

1. Premature androgenetic alopecia patients attending dermatology OPD in tertiary care hospital.
2. Patient willing to participate in the study & have given written consent.
3. Patients in the age group of 18-30 years.

Exclusion Criteria:

1. Drug induced alopecia
2. Chemotherapy induced alopecia.

3. Alopecia due to other causes.

MATERIALS & METHODS:

Total 50 patients were included in the study. Patients were diagnosed with Androgenetic alopecia on the basis of clinical history & clinical examination.

We tested serum Vitamin D levels before starting treatment.

After initiation of treatment, follow up was taken every month for 6-7 months. Photographic evaluation of the response to the treatment was done.

At each visit, serum Vitamin D levels were tested and we tried to demonstrate the association between Vitamin D levels and severity of alopecia areata.

Follow Up:

Follow up of patients was taken every month for 6-8 months in the OPD.

Vitamin D levels were tested at each visit and the data was compared over the period of time.

RESULTS:

A total of 50 cases were recruited and analysed. The mean age of the cases was 24 years. 82% of the cases [41 patients] had deficiency of vitamin D (<20 ng/L), while 14% [7 patients] had insufficient vitamin D levels (21-29 ng/L). There was a positive correlation between vitamin D deficiency and severity of androgenetic alopecia (AGA).

CONCLUSION:

Our study showed a significant correlation between vitamin D deficiency and the severity of androgenetic alopecia [5]. This suggests that vitamin D may play a role in the premature onset of androgenetic alopecia [4]. However, further studies on a larger population and the effect of vitamin D supplementation on the progression of androgenetic alopecia are required to validate the above findings.

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