STUDENTS' CORNER
LETTER TO THE EDITOR

Delving into diversity: Exploring different risk factors of premature greying of hair

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Dear Madam, Hair is said to grey prematurely when a minimum of five grey hairs occur before the age of 20 in Caucasians, 25 in Asians and 30 in Africans.[1] Some authors propose using 25 years as a cut-off for people in the South Asian subcontinent. Also, there's no universal grading system for premature greying of hair (PGH). This letter addresses the various evolving risk factors for PGH in young adults worldwide.

PGH may be familial or genetically influenced, travelling in an Autosomal Dominant pattern. A positive family history, in particular the paternal history is the most powerful risk factor.[2] PGH is also linked to nutritional deficiencies including vitamins (especially B12) and minerals. For example in one study, significantly lower levels of serum calcium, ferritin, vitamin B12, and high HDL were observed in patients.[3] T3 and T4 act on hair follicles to cause melanogenesis and their deficiency is therefore associated with PGH, alopecia, and changes in hair morphology. Another study found notably reduced levels of copper in cases (PGH) as compared to the control group. This study, however, did not observe lower levels of zinc or iron among the affected population. A separate case-control study concerning the association of epidemiological and biochemical factors with PGH reported that a significantly higher percentage of individuals with premature greying had atopic diathesis, led sedentary lifestyles, had family histories of the condition, smoked, and had reported higher levels of perceived stress compared to controls. Though, interestingly enough, regular application of hair oil seemed to confer a safeguarding effect against premature greying. Upon further review of the literature, it became apparent that both BMI and exposure to sunlight emerged as substantial predictors of PGH.

Despite the prescription of various vitamins and minerals like biotin, calcium pantothenate, zinc, copper, and selenium (all of which have been recognized as risk factors), the outcomes have been disappointing. Calcium pantothenate is frequently recommended for premature greying of hair (PGH).[4] This highlights an existing knowledge gap concerning the precise causative risk factors, necessitating further investigation for a comprehensive understanding and improved management of individuals experiencing premature greying of hair.

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