

“Overnight Graying” Phenomenon: A case of Widespread Non-Pigmented Hair Regrowth in Diffuse Alopecia Areata

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Rec date: May 25, 2014; Acc date: June 25, 2014; Pub date: June 27, 2014

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Abstract

The rapid whitening of hair in a short period of time characterizes the phenomenon called "overnight graying". Diffuse alopecia areata is considered the most likely cause to explain this phenomenon, since there is predominant involvement of the dark pigmented hair and, subsequently, its fall. Thus, the patient who already has a few white hairs, when suffering the fall of dark pigmented hair, has the feeling that his/her hair became totally white "overnight". It is believed that this is an immune-mediated disease, although other factors may be involved: stress, neurological factors, infectious agents and intrinsic abnormalities of keratinocytes and melanocytes. We report a case of "overnight graying" phenomenon in a 56-year-old patient, after being diagnosed with prostate cancer.

Introduction

The phenomenon of “overnight graying” is characterized by rapid hair whitening in a short period of time [1]. This occurs in an adult who usually has a mixture of white and black hair (gray hair) and that suffers black hair loss preferably and whites remain [2,3,4]. The first episode reported was in the sacred book of the Babylonian Jews, Talmud, around the year 83aC [4]. Several explanations have been proposed to explain this phenomenon, among the most popular, vitiligo, telogen effluvium and diffuse alopecia areata, which is the most plausible, that can result in sudden alopecia and occur overnight [3].

Reporting of communication

A 56-year-old patient with a history of whitening hair over a period of about 1 week, after being diagnosed with prostate cancer in urological consultation, with cause him a period of major stress after the news. He denied prior chemotherapy or radiotherapy and has just personal history of hypertension, treated with losartan and hydrochlorothiazide. The physical examination revealed diffuse polyposis around the scalp, except occipital region where a small area of dark hair remained. In this area we noticed a positive “pull test” with telogen hairs. “Black dots”, dystrophic and exclamation mark hairs were observed at trichoscopy. Based on the clinical and dermoscopic examination, the hypothesis of the phenomenon of “overnight graying” was taken into account. The patient was informed about the disease and treatment was initiated with topical steroid associated with minoxidil 5% once a day.

Discussion

Alopecia areata is a common non-scarring hair loss condition of unknown etiology that can affect the scalp or any area of the body, ranging in severity from localized areas to universal involvement [3,6]. It affects both sexes and is found at any age, with the highest prevalence from 20 to 50 years of age [6]. Although it is believed to be an immune-mediated disease, other factors have been implicated:

stress, neurological factors, infectious agents and intrinsic abnormalities of keratinocytes and melanocytes [3]. In patients with localized alopecia areata, the regrowth with growing areas of non-pigmented hair (poliosis) is a recognized phenomenon, unlike what occurs in diffuse alopecia areata, which the widespread growth of non-pigmented hair has been rarely described [2]. The whitening of hair is attributable to two main factors. Pigmented hair is preferentially lost, possibly due to the presence of anti-melanocyte antibodies in its interior [1,2]. In addition, there is continuous inflammatory activity, marked by the existence of exclamation-mark hairs [1,2]. These strands have a few millimeters in length and normal stump, but the proximal portion to the scalp is thin and depigmented [6]. It has been shown that in the areas of growth there is reduced number of melanocytes and abnormal melanogenesis [1,2]. The spontaneous growth, or, resulting from the treatment, can be done by promoting non-pigmented hair, usually temporary, lasting no more than an anagen phase [2]. In the case of diffuse alopecia areata, the patient has diffuse loss of dark hair, usually for a short period of time, therefore, the patient remains only with white hair, creating an illusion of color change to white [3,5]. This phenomenon is known as the phenomenon of “overnight graying”. The absence of cutaneous hypopigmentation and selective loss of pigmented hairs exclude the hypothesis of vitiligo, as well as the absence of triggering diseases combined with the selective fall of the pigmented hairs makes it unlikely telogen effluvium as a cause [3].

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