



Pili Annulati associated with Hair Fragility: Case Report and Review of the Literature

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Abstract

Pili annulati is a disorder that produces a spangled appearance to the hair, caused by alternating light and dark banding of hair shafts. Complications of pili annulati are limited; the most noteworthy complication is increased breakage. We report a case of Pili annulati associated With Hair Fragility, based on clinical examination and dermoscopic examination findings.

Keywords: Pili annulati ; Hair fragility ; Dermoscopy

Introduction

Pili annulati is a rare hair anomaly characterized by the unique, dotted shiny appearance of alternating light and dark parts of hair. This hair disorder is considered to be inherited, although some sporadic cases have been seen. Most of the cases may show abundant scalp hair and some cases may show a fragility of hair and develop alopecia. We report a case of Pili annulati associated with Hair Fragility.

Case Presentation

A 40-year-old women consulted in our Department of Dermatology for whitish dots on her scalp hair that was coarse and broken easily for the first time about 10 years ago. The family and medical history were unremarkable. A physical examination revealed that the hair shafts were black mixed with alternating light brown color and a lot of small white-gray spots were evident .There were no other abnormalities; the skin nails and mucosal surfaces were normal . Dermoscopic examination showed the hair shafts had alternating light and dark bands with multiple white nodes (figure1(A-C)) Based on clinical and dermoscopic examination findings, a diagnosis of Pili annulati was made.

Discussion

Pili annulati , also known as « ringed » or “Morse alphabet” hair, is a rare benign disorder characterized by a unique speckled and banded appearance of the hair with alternate light and dark bands [1]. The disease is predominantly inherited in an

autosomal dominant fashion; however sporadic cases have also been reported [1,2]. Clinically, these individuals are noted to have a spangled appearance to their hair, which is caused by a pattern of light and dark banding of variable periodicity that is visible to the naked eye, The light bands that are visible with the unaided eye under a refracted light, actually correspond to dark bands when seen under light. This phenomenon is created by abnormal cavities in the cortex of the hair shaft, which produces lighter bands seen on clinical examination. Thus, the air filled spaces in cases of PA may be the reason for hair fragility, which would increase susceptibility to shearing stress. Dermoscopy is an invaluable technique that has revealed a new dimension of clinical morphologic features in dermatology. However the trichoscopy is the simple method increases considerably the diagnostic performance of the dermatologist in the hair diseases,



Figure 1 (A) Regular alternating bright bands on hair shafts. (B) Multiple white-gray spots appearing like grains of sand exist on the hair shaft. (C) Alternating dark and bright bands with intermittent whit spots on the hair shaft appeared on the dermoscopic examination.

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revealing an alternating white bands along the hair shafts themselves [3] as it was in our case. Although the diagnosis is confirmed by further microscopic examination of the hair shaft [2]. Complications of pili annulati are limited but include a possible increase in breakage from weathering of the abnormal hair shafts associated with Intermittent breaks in the affected hairs [4]. Monilethrix, pseudopili annulati should be considered in the differential diagnosis; it can present with similar spangling of the hair now days with Morse sig in tinea capitis can be excluded by light microscopy and trichoscopy [5-6]. Treatment in pili annulati is often not required as it is a benign condition but in rare forms associated with hair breakage and fragility, gentle hair care is the recommendation [7]. Finally, PA has sometimes been observed in association with immunological disorders including alopecia areata [8].

Conclusion

Pili annulati is a hair shaft disorder that does not cause cosmetic issues, but in our case we noted hair fragility. However an multidisciplinary healthcare team approach is essential to render to best patient care for prevention of complications.

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