

Woolly Hair Nevus Involving Entire Occipital and Temporal Scalp

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Dear Editor:

Woolly hair is an abnormal variant of the fine, curled hair on the scalps of non-Black people. These abnormal hairs are curly, short, thin and sparse. Woolly hair nevus is a rare condition that is characterized by curly hair in a circumscribed area of the scalp¹.

A 20-year-old woman visited our hospital complaining of sparse and curled hair on her scalp. On clinical examination, we observed a well-defined patch of abnormal

hairs over the occipital and lower temporal area. The abnormal hairs were curly, short, and appeared thinner and lighter than the other hairs on the scalp. The scalp surface on the lesion showed mild erythematous macules and patches (Fig. 1A, B). The patient reported that these findings have been present since she was 1 year old. She had a known past history of pectus excavatum but no other skin problems or visual abnormalities and no medical or family history. On histopathologic examina-

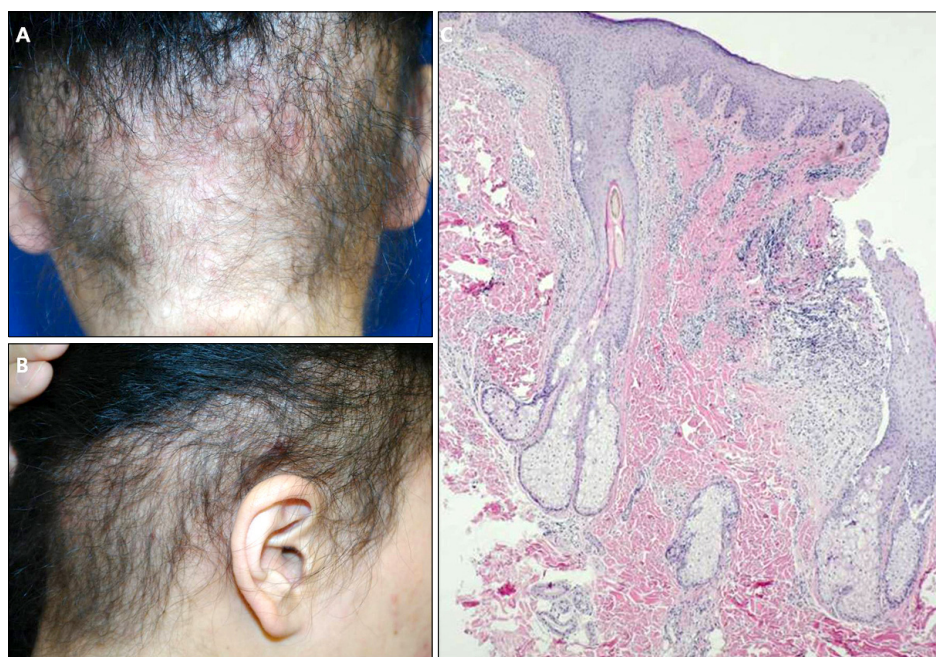


Fig. 1. Well-defined patch of abnormal curly hair over the occipital and lower temporal area. (A) Right 90° side view. (B) Posterior view. (C) Wavy hair follicles with perifollicular infiltration of the inflammatory cells (H&E, $\times 40$).

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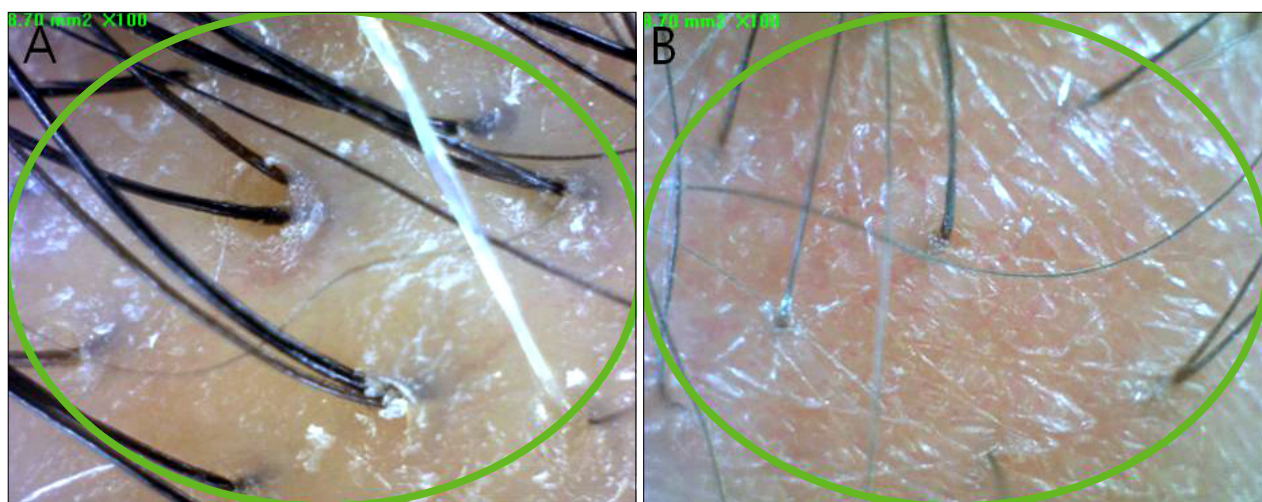


Fig. 2. Mean hair diameters were measured by phototrichogram. (A) Normal hairs on the vertex (0.086 mm). (B) Abnormal hairs on the occipital scalp (0.041 mm).

tion, hair follicles revealed a wavy appearance with perifollicular infiltration of the inflammatory cells (Fig. 1C). The diameter of five woolly hairs and five normal hairs on vertex area were measured by phototrichogram (Folli-scope 2.8; LeedM, Seoul, Korea). The mean diameters of the normal vertex area hairs and the woolly hairs were 0.086 mm (Fig. 2A) and 0.041 mm (Fig. 2B), respectively. Chest X-ray showed right heart border obliteration, and left atrial enlargement was shown on electrocardiography. We consulted with the department of cardiology for diagnosis of this abnormal finding, but no abnormalities were found in complete medical checkups. Other laboratory tests results were within normal ranges. These findings were consistent with a diagnosis of woolly hair nevus.

Woolly hair is characterized by curly and fine hair. It is presented at birth and is usually the most severe during childhood. The growth rate is usually normal, but the hair may not grow longer than a few centimeters, and it may be caused by a shortened growth cycle¹. Hutchinson et al.² classified three groups of woolly hair: autosomal dominant hereditary woolly hair, autosomal recessive familial woolly hair, and woolly hair nevus. Woolly hair nevus is a rare condition associated with unruly, curly hair. These hairs tend to be lighter in color, smaller in diameter than the surrounding normal hair without an increase in fragility, and appears to be sparse^{1,3}. It has

been commonly reported that the affected hair is smaller in diameter than normal hair and the area of involved scalp has been described as being several centimeters and round in shape^{1,3,4}. Our patient displayed woolly hair nevus on her entire occipital and lower temporal area. The involvement area is much larger than that of other cases in previous reports. To the best of our knowledge, this type of widespread woolly hair nevus has never been reported in the literature.

About 50% of woolly hair nevi are associated with an ipsilateral pigmented or epidermal nevus⁴. Our patient showed no other abnormalities except pectus excavatum, but it is uncertain whether the pectus excavatum is associated with the woolly hair nevus or not.

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