Ann Dermatol Vol. 24, No. 1, 2012 http://dx.doi.org/10.5021/ad.2012.24.1.109

LETTER TO THE EDITOR

Is Spontaneous Disappearance of Nevus Depigmentosus Possible?

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Dear Editor:

Nevus depigmentosus (ND) is characterized by a congenital hypopigmented macule or patch. The pathophysiology of ND is poorly understood, but likely associated with a functional defect in melanosome transfer from melanocytes to keratinocytes[1]. ND is known to remain generally stable in size and distribution throughout life[1]. Herein, we describe a case of a 6-year-old boy whose ND disappeared, suggesting the possibility of spontaneous resolution of ND.

A 10-month-old male was brought to our clinic because of whitish patches on his right leg that had been present since his birth. Physical examination revealed hypopigmented patches on the medial side of right thigh (Fig. 1a). A diffuse bluish patch that was suspected to be an aberrant Mongolian spot surrounded the hypopigmented areas. A 2-mm punch biopsy of the hypopigmented patches and adjacent perilesional normal skin at 1 cm from margin was performed. There were no remarkable findings on H&E staining (Fig. 2a). Fontana-Masson staining showed decreased epidermal pigmentation in the lesional skin compared to the perilesional normal skin (Fig. 2b). There was no difference in the number of NKI/beteb positive melanocytes between the lesional and perilesional normal skin (Fig. 2c). These findings were consistent with ND. The patient did not receive any treatment and was lost to follow-up until his recent revisit 6 years later. At that time, he returned with a facial mobiliform eruption, accompanied by fever and conjunctival injection, and was diagnosed with erythema infectiosum. Interestingly, during physical examination, it was noted that the previous ND and the surrounding aberrant Mongolian spot had completely disappeared (Fig. 1b). The patient's parents did not recall the time of the ND disappearance.

Spontaneous resolution of ND has never been reported. However, it should be noted that there has been no epidemiological study regarding the fate of ND. Moreover, there have been several reports suggesting the possibility that the functional defect of the melanocytes in ND is reversible[2,3]. Bardazzi et al.[2] described the development of lentigines within ND after narrow band ul-

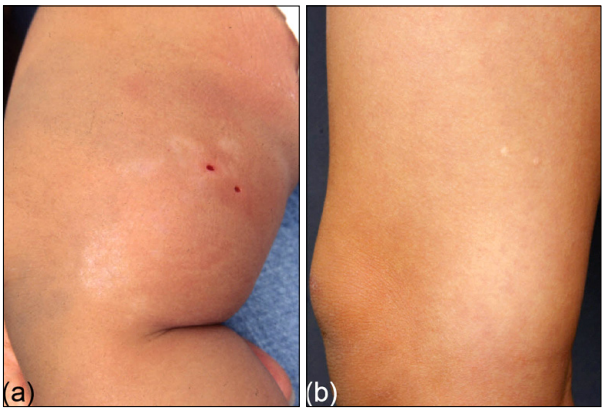

Fig. 1. Spontaneous disappearance of hypopigmented macules and patches. (a) A 10-month-old male presented with hypopigmented macules and patches on his right thigh in linear configuration since birth. A diffuse bluish patch that was suspected to be an aberrant Mongolian spot surrounded the hypopigmented areas. The holes were made by punch biopsy. (b) After 6 years, complete disappearance of the previous hypopigmented macules and patches and the surrounding aberrant Mongolian spot was noted.

Received December 2, 2010, Revised May 16, 2011, Accepted for publication May 23, 2011

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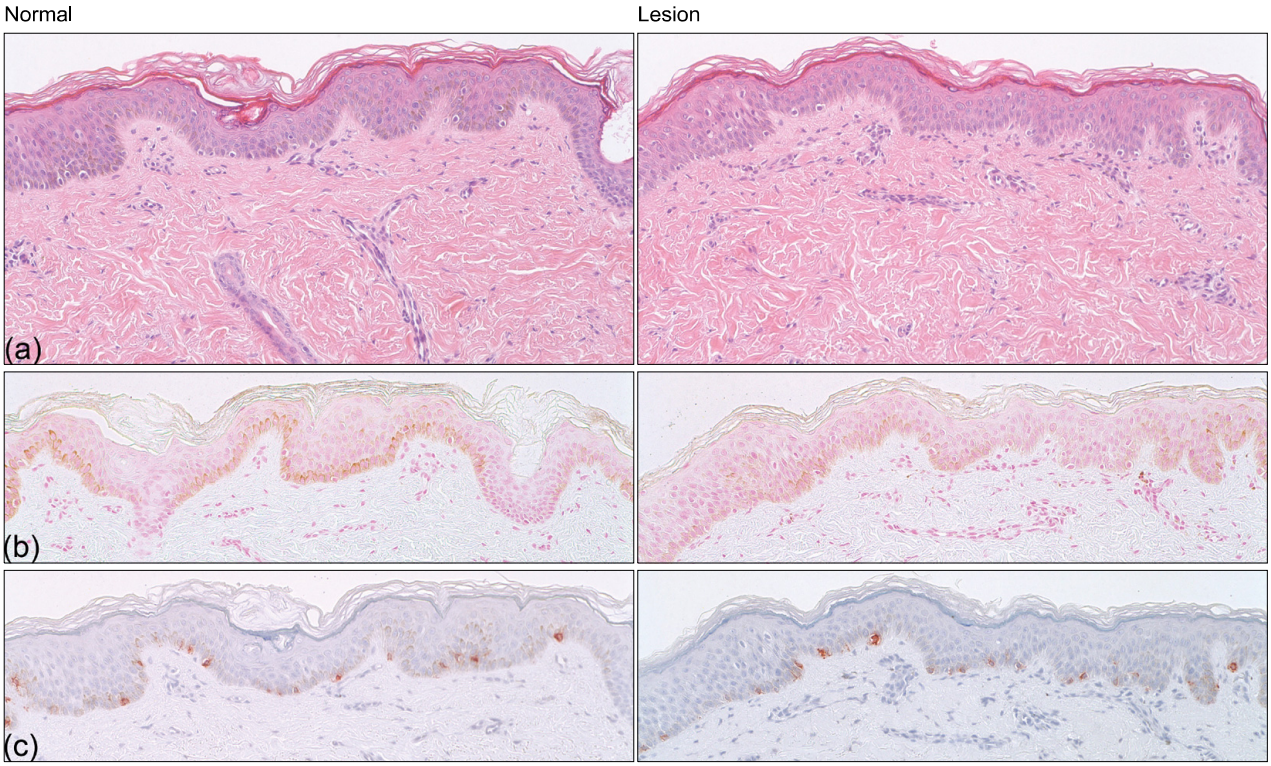

Fig. 2. Histological findings. (a) There were no remarkable findings on H&E staining. (b) Fontana-Masson staining showed decreased epidermal pigmentation in the lesional skin compared to the perilesional normal skin. (c) There was no difference in the number of NKI/beteb positive melanocytes between the lesional and perilesional normal skin. Original magnification was ×200.

traviolet B exposure. They suggested the possibility of partial activation of melanosome transfer, resulting in overproduction of melanin within ND. Oiso et al.[3] reported a case of acquired junctional melanocytic nevus development in ND. These cases suggest that melanocytes in ND could transform from a functionally defective stage to an active stage or shift to other forms such as nevus cells. Interestingly, in our case, the ND and Mongolian spots were coexistent at the initial visit and both had disappeared at the next visit. The possible relationship between Mongolian spots and spontaneous regression of ND could be suspected.

There was no confirmative diagnosis of ND. It is important to consider the other hypopigmenting conditions, such as postinflammatory hypopigmentation or hypomelanosis of Ito[4]. Because the lesion was present from birth and he did not have any history of inflammation on the hypopigmented lesion, postinflammatory hypopigmentation could be differed from our case. Hypomelanosis of Ito consists of hypopigmented zones or spots with irregular borders, whorls, patches, or linear streaks with various patterns of distribution[5]. It follows the lines of Blaschko that represent a peculiar pattern of distribution. In addition, hypomelanosis of Ito usually encounter the extracutaneous manifestation. Reviewed in aspect of distribution of lesions and extracutaneous symptoms, we thought that hypomelanosis of Ito was less likely in our case. Therefore, considering the congenital hypopigmented macules, distribution, and other clinical manifestations, the hypopigmented macules and patches were most likely ND.

In conclusion, our case suggests the possibility that ND could disappear. An epidemiological study of ND with long term follow up is further needed to know if ND could disappear, as in our case, or is persistent throughout life.

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