



## Mitten-Line Hyperpigmentation of an Infant

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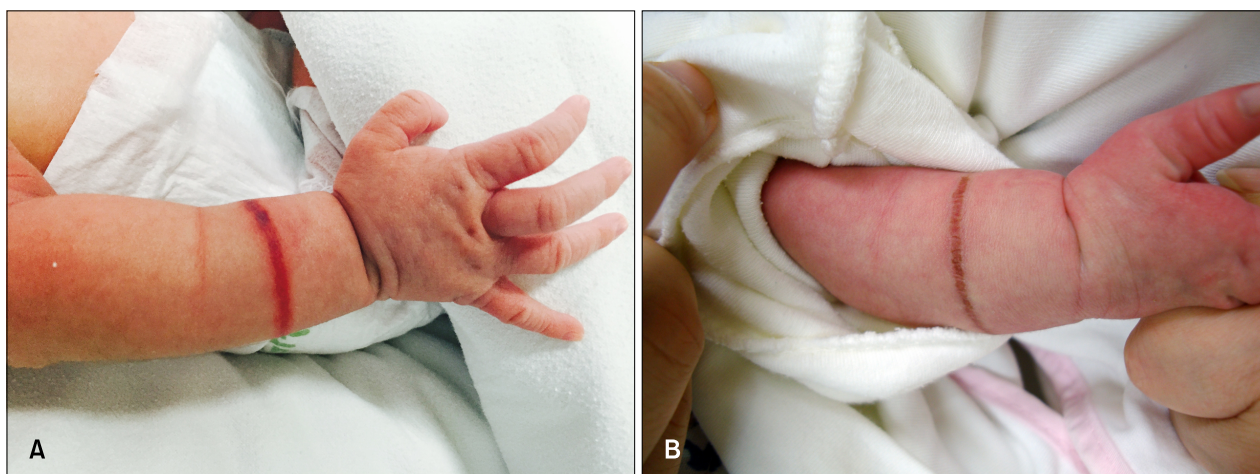
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Dear Editor:

A 9-day-old female infant recovering from respiratory distress syndrome was referred to us for linear skin eruption on her forearm during hospitalization. She was born at gestational age 38 weeks 1 day by normal spontaneous vaginal delivery and weighed 3,260 g at birth. For the 5 days preceding the development of the skin lesion, mittens had been placed on both her hands to prevent acrocyanosis. Physical examination revealed a linear, partially circumferential, erythematous and vesicular patch corresponding to the elastic band of the mitten on the dorsal side of the right forearm (Fig. 1A). Sensory and motor function of the affected area was intact and there were no

other skin or systemic abnormalities. After 1 week without mitten use and application of a topical steroid cream, the skin lesion healed and became an area of brown hyperpigmentation (Fig. 1B). During the 1-month follow-up period, the hyperpigmentation line gradually faded.

Mitten- or sock-line hyperpigmentation, also known as sock-line band or infantile garment band, is a recently described, rare infant skin condition<sup>1-4</sup>. In 2005, Zhu et al.<sup>5</sup> experienced two infants with linear hyperpigmentation of the calves, and first described this condition as 'congenital curvilinear palpable hyperpigmentation'. However, it is considered to be a misnomer since it was not actually congenital origin. To the best of our knowledge, there are



**Fig. 1.** (A) Linear, circumferential, erythematous and vesicular band on the forearm of a 9-day-old female at her first examination. (B) Brownish hyperpigmentation after one week.

Received July 20, 2015, Revised September 3, 2015, Accepted for publication September 10, 2015

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only 20 cases of this distinct condition in the literature<sup>1-5</sup>. It is characterized by a linear, partially or fully circumferential, hyperpigmented patch along the area compressed by a tight garment such as socks, mittens, pants or diapers<sup>1-3</sup>. This acquired lesion usually presents as a single, unilateral, brown-colored, flat configuration, but multiple, bilateral, raised as well as atrophic lesions have also been described. It occurs predominantly on the posterior aspect of the ankle or calf, and rarely on the wrist, thigh, or heel<sup>3,4</sup>. Although the pathogenesis is unclear, dermal inflammation or panniculitis related to local pressure may lead to post-inflammatory hyperpigmentation<sup>2</sup>. Characteristics of infantile skin, including vulnerability to physical trauma and high saturated fatty acid content, as well as the inability to remove the tight garment or effectively communicate discomfort, may be related to the development of this condition<sup>2</sup>. A diagnosis can be easily reached upon obtaining the history related to garment wear and the characteristic clinical features. Differential diagnosis should include other infant linear skin eruptions with different courses related to child abuse, amniotic band syndrome, acquired raised bands of infancy. In addition, congenital hyperpigmentation syndromes following Blaschko's lines, such as linear epidermal nevi, linear and whorled nevoid hypermelanosis, and incontinentia pigmenti should also be considered<sup>2,3</sup>. The distinct clinical features of mitten- or sock-line hyperpigmentation for distinguishing from other linear hyperpigmentation is that it typically presents as

one or two hyperpigmented patch perpendicular to the limb axis and does not follow the line of Blaschko. Avoiding local pressure from tight garments is the mainstay of preventive therapy. This condition typically resolves within a few months without any sequelae, although a few persistent cases longer than 2~3 years have been described in the literature<sup>3</sup>.

In conclusion, we report the first Korean case of mitten-line hyperpigmentation on the right forearm of a 9-day-old female.

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