

QUIZ SECTION

Linear Eruptions on the Calf in a Six-week-old Boy: A Quiz

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A 6-week-old boy was referred to the Department of Paediatrics with linear eruptions on his left calf. He was born at term with a birth weight of 4,300 g and length 54 cm. The day before admission his parents had noted a red streak on his leg. A new mark with small blisters was noticed on the day of admission (Fig. 1A). The paediatrician concluded that the skin lesions on the left leg had an artificial appearance. Physical examination revealed no other pathological findings. The boy appeared to have age-appropriate growth and development. Routine blood tests and skin culture were normal.

A suspicion of child abuse was raised and burns were considered. The relationship between parents and infant seemed unremarkable, however, and the parents denied that abuse could have happened.

What is your diagnosis? *See next page for answer.*

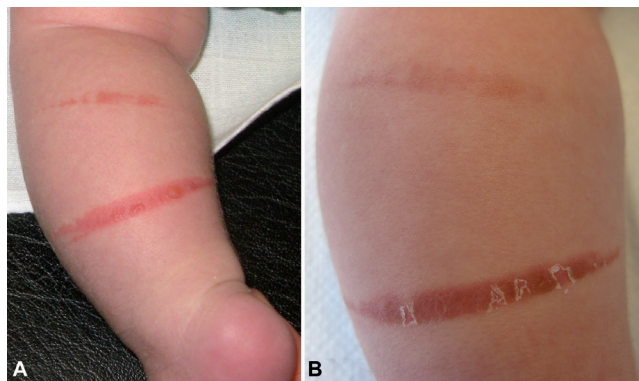


Fig. 1. (A) Six-week-old boy with erythematous and vesicular bands on his left calf. (B) Hyperpigmented and scaly linear bands seen after one week.

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ANSWERS TO QUIZ

Linear Eruptions on the Calf in a Six-week-old Boy: Comment

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Diagnosis: **Sock line bands**

The patient was referred to the Department of Dermatology for evaluation, where he was seen one week later. Skin examination revealed 2 demarcated hyperpigmented red horizontal bands on the left calf. The lesions were slightly elevated with scattered desquamation in the distal lesion (Fig. 1B). A clinical diagnosis of sock-line bands was made, and no skin biopsy was considered necessary. His parents were informed about the benign nature of this disorder and they accepted that the skin lesions could be secondary to injuries from elastic bands in tight socks. The pigmentation is still visible more than one year after onset.

Infantile garment bands have recently been described as a clinical entity characterized by linear and circumferential skin lesions developing in infants after wearing tight garments (1). The clinical picture was first described as sock-line bands after compression from elastic bands in socks, and later reported after wearing tight mittens, pant legs or nappies. Only approximately 20 cases of infantile sock-line bands or sock-line hyperpigmentation have been described in the literature in small children (2–4). These are acquired, linear circumferential or partially circumferential hyperpigmentations on the calf or ankle, representing a post-traumatic phenomenon associated with tight socks. In addition, mitten-line hyperpigmentation has been described after wearing tight mittens (5). Single or multiple, unilateral or bilateral raised, as well as atrophic, cases have been described, and blistering may be seen in the acute phase. Tight elastic bands of socks or pant legs may cause dermal inflammation or panniculitis, which may heal with post-inflammatory changes resembling sock lines. When patients have been biopsied the histology showed post-

inflammatory hyperpigmentation or lentiginous melanocytic hyperplasia or basal layer hyperpigmentation (2, 6). No other risk factors, such as atopic dermatitis or dermal defects, have been described in this condition.

It is important to recognize this benign condition and distinguish it from other infantile curvilinear lesions, such as child abuse, amniotic bands, acquired raised bands of infancy, pigmentary mosaicism, dermal melanocytosis, linear epidermal naevus, and incontinentia pigmenti.

Sock-line bands run a benign course and typically resolve within a few months, although persistence after 2–5 years of follow-up or even until adulthood has been reported (3–5). Knowledge of this characteristic and benign condition will lead to greater recognition in the clinical setting, rendering unnecessary any further diagnostic work-up, such as skin biopsy, and enabling parents to be reassured.

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