Multiple-band melanonychia striata

CASE HISTORY
A 10-year-old Moroccan boy was evaluated for the appearance of non-evolutive multiple longitudinal hyperpigmented streaks on fingernails and toenails (figure 1). The remaining physical examination and history were negative. A diagnosis of multiple-band melanonychia striata (MS) was made.

Nail pigmenitary condition remained stable at follow-up reviews, with no superimposed symptoms.

KEY LEARNING POINTS
MS is defined as a single or multiple black/brown pigmentation bands arranged lengthwise along the nail unit. Physiological MS is more commonly seen in darker phototype individuals and is quite unusual in fair-skinned ethnic groups. MS is the result of increased melanin production by nail matrix melanocytes, which produces a visible pigmentation band in the nail plate.

Distinction should be made between melanocytic activation (increased melanin synthesis with a normal number of melanocytes) and melanocytic hyperplasia (increased melanin synthesis with an increased number of melanocytes). The latter condition includes melanoma, which is the most concerning (albeit infrequent) cause of melanonychia in children.

Multiple-band MS (as in our patient) makes melanocytic naevus and melanoma less likely as a cause.

Our patient’s persistently good clinical condition since the appearance of MS (3 years ago) allowed us to exclude the rare systemic causes of multiple-band MS (eg, Cushing syndrome, hyperthyroidism, malnutrition, vitamin B12 deficiency, scleroderma and systemic lupus erythematosus inter alia).

CONCLUSIONS
MS represents a poorly known clinical picture in childhood. While this condition is physiological in dark phototype ethnicities, it may be an important clue to coexisting relevant systemic illness among fair-skinned ethnic groups.

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