A 7-month-old infant who was receiving an inadequate amount of diluted cow milk since birth was admitted with poor weight gain. Paired transverse lines were noted on all finger nails (Figure) suggestive of Muehrcke lines.

Muehrcke lines, paired transverse white lines, commonly are seen in patients with chronic hypoalbuminemia, malnutrition, and secondary to chemotherapy. These lines are believed to occur secondary to edematous nail bed causing abnormal nail bed vasculature resulting in transverse lines that typically disappear on compression of the nail bed.

Muehrcke lines are homogeneous with smooth borders, unlike Beau lines, which have a transverse indentation. They disappear on pressure, unlike Mees lines seen in arsenic poisoning, which do not blanch. Transverse white bands appearing in the nail plate often mimic those following trauma but can be differentiated from systemic disease in that they typically are more homogeneous and span the entire breadth of the nail bed or the nail plate.

These lines disappear with adequate treatment. The child had hypoalbuminemia, and the nail bed changes disappeared after nutritional rehabilitation.

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References