Beau’s Lines

A 5-year-old boy diagnosed as having Kawasaki disease during follow-up was noted to have transverse grooves on the nails of all the fingers. These were diagnosed as Beau’s lines (Fig. 1) suggestive of a recent, acute stressful condition.

Beau’s lines (also known as Beau-Reil cross furrows) are transverse grooves or furrows originating under the proximal nail fold. They develop due to any stress that temporarily interrupts nail growth and become visible several weeks after the occurrence of the insult. Nails grow at a rate of 1 mm per week and the distance and width of Beau’s lines from the nail cuticle may therefore help to time the insult and its duration. Acute onset of disease may be indicated by an abrupt leading edge to the groove with narrow depressions whereas a sloping trailing border with wide depressions represent a gradual protracted resolution of the illness. All the nails are equally affected, but deformities are frequently noted on thumbnails or toenails due to their slower growth rate. While their association with Kawasaki disease is well known, they are by no means specific to it. Other causes of Beau’s lines include exposure to severe cold, febrile illnesses (typhoid, Asian flu), hypocalcemia, hand trauma, chemotherapy, itraconazole usage, zinc deficiency, pemphigus vulgaris and even dysmenorrhea. They may also be seen in infants, probably as a sequel to birth trauma. In this situation they appear at about 4 weeks of age and generally disappear by 4 months of age.

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Fig. 1. Beau’s line. Note the transverse furrows across the finger nails.