



## The Polyonychia and Distal Phalangeal Bone Underdevelopment on Right Second Toe

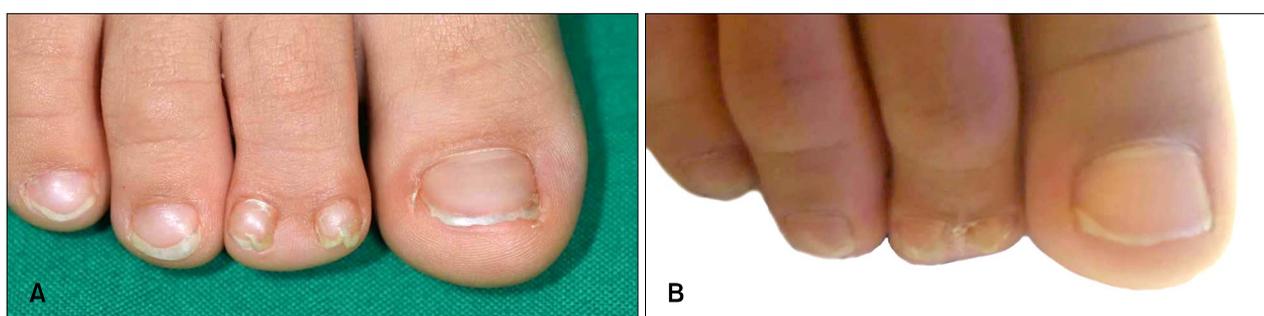
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Dear Editor:

When the distal phalanges are deformed, the nails are often affected. We describe a case of polyonychia on the deformed distal second toe of the right foot. A 3-year-old boy presented with polyonychia on the deformed distal second toe of the right foot at birth (Fig. 1A). He had no family history of the deformity and other associated anomalies. The second toe contained two small nail plates (micronychia). In addition, bony depletion probably due to delayed ossification in the distal second toe was observed on radiological examination (Fig. 2). Surgical restoration was performed to attain a good cosmesis (Fig. 1B). Several disorders are accompanied by nail deformities and underlying distal phalangeal anomalies. In particular, congenital onychodysplasia of the index fingers is termed Kikuchi syndrome. It is characterized by various nail deformities such as micronychia, anonychia, hemionychogryphosis,

and simple malalignment, and by bony abnormalities such as a Y-shaped bifurcation of the distal phalanx<sup>1,2</sup>. Polyonychia is also one of nail deformities in Kikuchi syndrome. This case may be Kikuchi syndrome presenting with polyonychia and bony defect of the right second toe. Recently, Kikuchi syndrome has been reported to include anomalies of the great toe<sup>3</sup>. However, cases of Kikuchi syndrome with polyonychia of the second toe are difficult to find. Polydactyly is classified into three broad groups, namely preaxial, postaxial, and central polydactyly, according to anatomic differences in bony structure<sup>4</sup>. This case should also be considered as a central polydactyly of the right second toe (especially, normal metatarsal with distal phalanx duplication according to Venn-Watson classification). Patients with central polydactyly usually have duplications of the second toe, commonly with unilateral involvement. They can have phalangeal bone depletion due to delayed



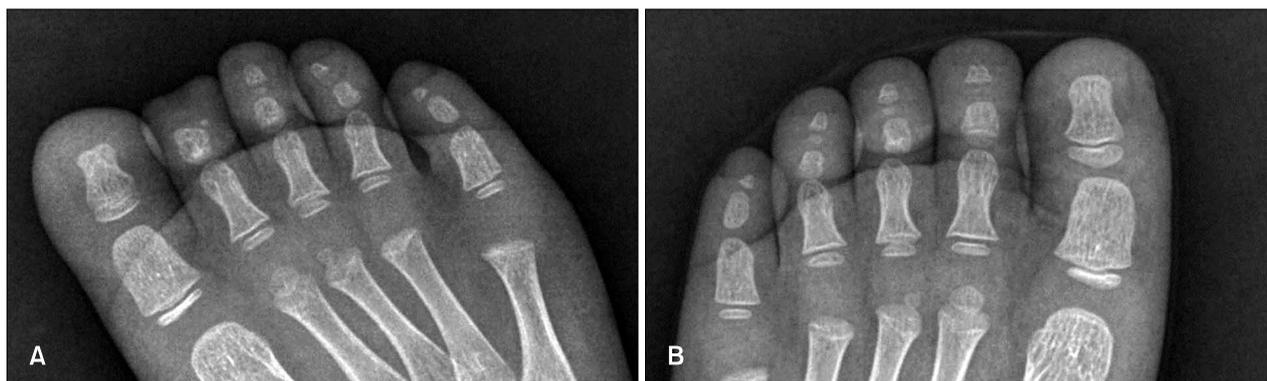
**Fig. 1.** (A) Polyonychia on the deformed distal phalanx of the right second toe. (B) One year after the operation.

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**Fig. 2.** Underdevelopment of ossification area of the right second toe (A) compared with the left second toe (B) on radiological examination.

ossification. However, central polydactyly with normal metatarsal with distal phalanx duplication is not easy to find. The nail deformity of the present patient was restored through surgical correction by removing the central portion of the distal digit and leaving a midline scar<sup>5</sup>. This surgical technique may be less satisfactory because of scarring and nail separation. We think this is a rare case of a polyonychia and distal phalangeal bony depletion on the right second toe.

### CONFLICTS OF INTEREST

The authors have nothing to disclose.

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