A Foot Deformity

Alexander K. C. Leung, MBBS, FRCPC, FRCP(UK and Irel), FRCPCH

A seven-month-old boy presents with deformities of his feet. The deformities have been noted since birth. There is no family history of a similar disorder.

What is your diagnosis?

This boy has syndactyly. Syndactyly is due to failure of segmentation of the digital rays in utero. The fusion of adjacent digits may involve only the soft tissue (*i.e.*, simple syndactyly) or soft tissue and bone (*i.e.*, complex syndactyly). Syndactyly may be classified as partial if only the proximal aspect of the digit is conjoined (*i.e.*, webbed) or complete if the fusion extends over the entire length of the digit. The condition is slightly more common in boys than girls. Approximately 50% of cases are bilateral and symmetrical.

Syndactyly may be inherited as an autosomal dominant trait with variable degrees of penetrance. Syndactyly may be an isolated finding or may also occur as a component of a number of syndromes, such as:

- Carpenter syndrome
- Alpert syndrome
- Pfeiffer syndrome
- Poland syndrome
- Amniotic band sequence
- Poland sequence
- Cornelia de Lange syndrome
- Greig cephalopolysyndactyly syndrome

Figure 1. Deformities of the feet.

- Holt-Oram syndrome
- Oral-facial-digital syndrome
- Oculodentodigital syndrome
- Smith-Lemli-Opitz syndrome

Radiographs of the affected digits should be performed in order to differentiate simple syndactyly from complex syndactyly. The condition is often asymptomatic and, except for cosmetic reasons, rarely requires surgical treatment.

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Dr. Leung is a Clinical Associate Professor of Pediatrics, University of Calgary, Calgary, Alberta.