

Bilateral Fibular Dimelia with Mirror Foot: An Additional Case Report

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A two-month-old male infant presented with peculiar bilateral lower limb malformations. He was born at term to unrelated healthy Egyptian parents after an uncomplicated pregnancy and delivery. There was no history of drug use, alcohol intake or exposure to teratogenic agents in pregnancy and the family history was also unremarkable.

On examination, the baby manifested striking shortening of lower limbs, especially rhizomelic shortening, with a prominence over left hip [A and B]. Clinically, the knee joints were not palpable and both ankles were fixed in an extreme equinus deformity [A]. The feet were short and very broad with extra digits in a mirror configuration and no identifiable great toes. There was nine and eight toes on his right and left foot, respectively [B and C]. Anteroposterior radiographs showed hypoplastic pelvis and femurs [D], while lateral radiographs showed two fibulae in each leg, with bilateral absence of the tibia, patella and knee joint [E]. Lateral radiographs also showed anterior subluxation of the distal ends of the fibulae over the talus [E]. The right foot had eight metatarsals while the left foot had seven [F]. The head circumference was within average for age and the upper limbs were clinically and radiologically normal. General visceral examination, US abdomen and echocardiogram were all free. A clinico-radiological diagnosis of tibial agenesis with fibular duplication and metatarsal diplopodia was made.

Mirror foot is a rare type of foot polydactyly that is characterized by mirror-image duplication around a midline axis on the leg, with absence of an identifiable hallux. Its association with tibial agenesis and fibular dimelia is extremely rare. As of July-2015, eleven cases had been registered worldwide according to the Orphanet Report Series (http://www.orpha.net/orphacom/cahiers/docs/GB/Prevalence_of_rare_diseases_by_decreasing_prevalence_or_cases.pdf). This limb defect is distinct from polydactyly, where accessory tarsal or metatarsal bones are not seen. Some reports have described the association of this rare defect with congenital heart defects and other congenital anomalies and some have incriminated teratogenic events in its etiology. Mirror foot may be a feature of Laurin-Sandrow syndrome (OMIM 135750), a genetic disease that comprises duplication of ulna and fibula with absence of radius and tibia and polydactyly of hands and feet, frequently in a mirror-like configuration.

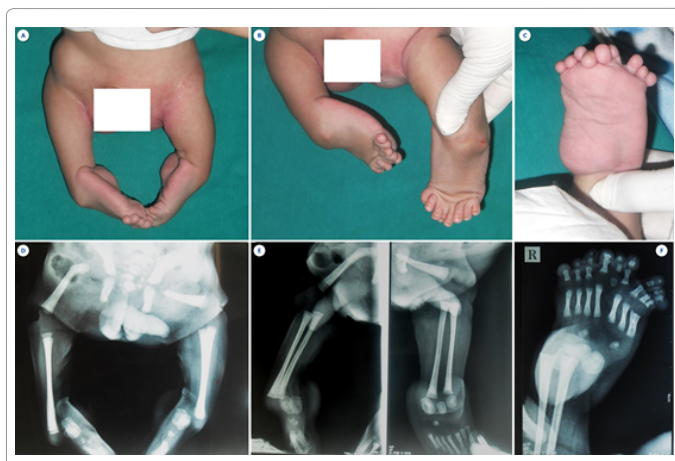
The presented case highlights an extremely rare condition, with bilateral agenesis of the tibia, bilateral duplication of the fibula and mirror foot, not associated with any other congenital anomalies.

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Competing Interests

The authors declare that they have no competing interests.



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