

Case Report

BIZARRE CASE OF POLYDACTYLY WITH RIGHT MIRROR FOOT

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ABSTRACT

Mirror foot, a form of polydactyly, is a rare congenital anomaly. In this form of congenital anomaly, there are several additional digits with accessory tarsal bones. It may be associated with fibular dimelia, tibial aplasia and tibial dysplasia. Cause of such anomaly is not known. On experimental basis it appears to involve ectopic SHH (Sonic hedgehog) signaling in the limb bud mesenchyme.

KEYWORDS: Polydactyly, Mutation, Autosomal dominant genes, Mirror foot.

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INTRODUCTION

Presence of supernumerary digits either on hand or foot is known as polydactyly. Polydactyly has been classified as preaxial, central or post axial depending on location of duplication[1]. Incidence of polydactyly has been reported to be 1 in 1000 live births [2]. Incidence of polydactyly is more in blacks (3.6-13.9 cases per 1000 live births) than in whites (0.3-1.3 cases per 1000 live births)[3]. It may be the result of mutation of autosomal dominant genes[4]. It is also a marker for diabetic embryopathy. In the 1990's it was proposed that preaxial hallucal polydactyly, particularly when proximally placed was a distinguishing feature of diabetic embryopathy [5]. Mirror foot is a rare case of polydactyly which bears several additional digits with accessory tarsal bones [6].

CASE REPORT

A forty year old woman attended Sainthia Nursing Home, in Birbhum district of West Bengal with complaint of pain in her left ankle joint.

On examination a gross congenital deformity was observed in her right foot. There were nine digits instead of five digits and the width of the right foot at the level of the webs of toes was almost twice than that of the left foot. As a case of polydactyly is regarded as hereditary malformation and is usually inherited as an autosomal dominant trait, family history was carefully elicited but was without any positive result.

The left foot revealed no malformations and the pain in the ankle joint may have been due to unnoticed sprain. Radiograph revealed the

following clinical features: 1. Entire right foot is duplicated except the bones of the great toe. 2. Presence of supernumerary digits. 3. Polymetatarsia (nine metatarsals) 4. Polytarsia (five cuneiform bones, one navicular, one cuboid, one talus and one calcaneus). 5. Hyperphalangy (nine proximal phalanges, eight middle phalanges and nine distal phalanges) 6. Cruciate sinus tarsi.