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Polydactyly 26 with Syndactyly of Bilateral Great Toes – A Case Report

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ABSTRACT

Presence of one or more digit is called polydactyly. Polydactyly may manifest singly or with other genetic disorder .We report a isolated non familial case of bilateral symmetrical polydactyly of hands with 6 finger in each and seven toes in both feet with syndactyly of both great toe, total of 26.

Keywords: Polydactyly, Syndactyly.

INTRODUCTION

Presence of one or more extra finger or toe is termed as polydactyly. It is one of the most common congenital anomalies of hands and feet. According to Barsky, polydactylism is a manifestation of general phenomenon of duplication of parts.[1] In an Arabian tribe of Hyabites hexadactyly was so common that any child born with 5 fingers was regarded as a variant and was sacrificed.[2] Polydactyly can be classified into five types as cutaneous nubbin, pedunculated digit, articulating digit with fifth metacarpal, fully developed digit with sixth metacarpal and polysyndactyly.[3] Classification of syndactyly contains type I- fingers are connected by skin and type B- webbing of fingers including bone structure. Syndactyly can be complete or partial, when usually only the bases of the fingers are joined.[13-16]

CASE REPORT

Our case is a 35 years old female, with Polydactyly 26 with 6 Fingers in both hands and 7 toes at both feet with complete Syndactyly of bilateral great toes. Other than these findings there are no other malformations or conditions noted after intensive investigation.

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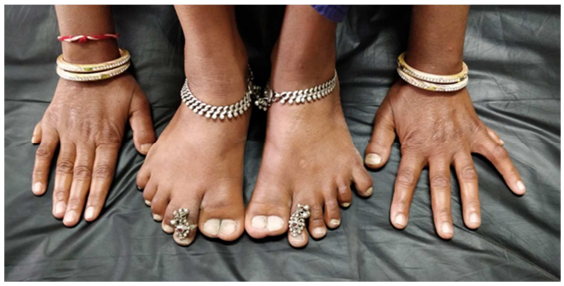

DISCUSSION

Syndactyly is a congenital deformity, with an incidence of approximately two or three per 10,000 live births. Inheritable syndactyism is associated with genetic defects on the second chromosome. Polydactyly occurs in similar approximately as syndactyly but it is ten times more frequent in Blacks than in Whites.[17-20] Gesase documented bilateral polydactyly of hands and feet associated with supernumerary renal vessels in right kidney.[5] Abnormalities involving polydactyly are usually bilateral.[6] But few researchers described unilateral involvement being more common than bilateral.[7] In polydactyly, extra digit may be functional or non-functional. In this case, we observed a functional digit in both feet Inherited cases represent only about 10% of polydactyly of hands and feet.[8] Polydactyly occurs usually due to some underlying genetic disorders in the form of autosomal dominant or recessive conditions. Recessive type is less commonly observed than dominant. Polydactyly, demonstrated as one of the presentation of autosomal recessive condition, Acrocallosal syndrome.[4] An

autosomal dominant inheritance, post axial polydactyly-progressive myopia syndrome was described in nine affected persons traced through four generations.[8] A Turkish family was traced through four generations showing polydactyly occurring singly and also in combination with cleft lip and cleft palate suggesting an autosomal dominant mode of inheritance.[9] Variability in genetic expression has been also observed. Karaaslan et al. reported mutation as a probable cause for the three cases of polydactyly in a family.[10]

The importance of polydactyly lies in the fact that, such finding can be helpful in antenatal diagnosis to see its inheritance, counselling of such families and at times may be treated by surgical correction. Surgery can be planned according to needs, may be for cosmetic reason or for maintenance of contour of the foot.[11,12]

CONCLUSION

In case of polydactyly, familial transmission should be kept in mind and in future investigated for prenatal diagnosis. Counselling of such families should be warranted. A corrective surgery should be planned as soon as possible.

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