Late Presentation of Metatarsal Epiphyseal Bracket in Previously Treated Pre-axial Polydactyly: How Can We Improve?

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INTRODUCTION:

Longitudinal epiphyseal bracket is an uncommon ossification anomaly affecting tubular bones, characterized by the abnormal formation of an epiphyseal bracket encircling the diaphysis of the bone. Longitudinal epiphyseal bracket is commonly associated with digital deformities, such as polydactyly. We reported a late presentation of metatarsal epiphyseal bracket in a child previously treated Preaxial polydactyly of the foot.

REPORT:

A 14-year-old gentleman presented with complaints of progressive deformity of bilateral foot and difficulties in wearing shoes. He had a history of congenital preaxial polydactyly of bilateral great toe which he underwent excision 6 years ago in another centre. He has a positive family history - whereby his mother had a similar presentation in her childhood.

Upon examination, there was an obvious hallux varus of bilateral foot, with the left is more severe than the right foot. The left great toe was also noticeably shorter than the right great toe.

Plain radiograph of the left foot showed a hallux varus with a shortened and trapezoidal shape of the 1st metatarsal bone.

The child underwent acute corrective opening wedge osteotomy of the 1st metatarsal bone for the angular deformity and monorail fixator for bone lengthening of the 1st metatarsal. Upon write of this report, the child has completed the bone lengthening phase and is being follow up for the consolidation phase.



Figure 1: Clinical Photo and Plain Radiograph.



Figure 2: Post Corrective osteotomy and lengthening.

CONCLUSION:

Metatarsal epiphyseal bracket usually associated with preaxial polydactyly of the great toe. Knowledge of this association is important in early diagnosis of epiphyseal bracket hence earlier and less complicated intervention can be done.

REFERENCES:

1. Choo AD, Mubarak SJ. Longitudinal epiphyseal bracket. J Child Orthop. 2013 Dec.