

CASE REPORT

Isolated Type II Preaxial Polydactyly with Radial Deviation of the Terminal Phalanges: A Case Report

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ABSTRACT

Isolated type II preaxial polydactyly is relatively less common compared with other types, moreover with radial deviation to proximal phalange. Treatment involves excision of the more hypoplastic thumb and reconstruction of the more developed thumb to improved both function and cosmesis. A girl, 4-year-old with isolated type II preaxial polydactyly with radial deviation of the terminal phalanges. She was found to have Z shaped preaxial polydactyly with a fully developed nail with an angle of 50° radial deviation to proximal phalange. Performed a repair surgery at the level of her right hand by resection of supernumerary hypoplastic thumb.

Keywords: Preaxial polydactyly, Thumb duplication, Supernumerary digit

INTRODUCTION

Polydactyly is the most common congenital digital anomaly of the hand. Although polydactyly is not rare, isolated type II preaxial polydactyly is relatively less common compared with other types, as described by Jain S¹. Different types of thumb polydactyly, classified by Wassel into seven types according to the level of the bifurcation and the extent of the deformation, as described by Morrissy et al.²

The pathoanatomy is dependent on the type of polydactyly. The nails, bones, joints, ligaments, muscles, tendons, nerves and blood vessels are split between the two digits. In addition, there can be hypoplasia or aplasia of any of the normal anatomic elements of a thumb. Plain radiographs will generally provide definitive information regarding skeletal pathoanatomy.

Treatment involves excision of the more hypoplastic thumb and reconstruction of the more developed thumb to improved both function and cosmesis.

CASE PRESENTATION AND METHOD

We report a girl, 4-year-old with Isolated type II preaxial polydactyly with radial deviation of the terminal phalanges. She was found to have Z shaped preaxial polydactyly with a fully developed nail with an angle of 50° radial deviation to proximal phalange. The patient cannot grasp perfectly. The patient is the first child, born normally in the midwife. There is no history like this for other family members. The fingers on the hand of the contralateral are not disturbed.

Performed a repair surgery at the level of her right hand by detaching the collateral ligament distally from the phalanx that is to be excised, resection of supernumerary hypoplastic thumb, centralize the remaining digit over the remaining articular surface and suture the collateral ligament. Restore anatomical alignment of the phalanges and maintain with a longitudinal Kirschner wire. This technique is along with Lamb, Marks, and Bayne technique as described by Jobe MT.³



Figure 1: Clinical Picture



Figure 2: Radiologic Finding



Figure 3: Intra Operation



Figure 4. X-Ray 4 Months after Operation



Figure 5. X-ray after 6 Months

RESULTS

After 6 months following the procedure, the patient is reassessed. There are no complications. The patient can now hold properly. Her family was satisfied with the cosmetic and functional result.

REFERENCES

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