

Case Report

Ulnar dimelia: a rare case

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Received: 14 December 2018

Revised: 11 January 2019

Accepted: 12 January 2019

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ABSTRACT

Mirror hand deformity or ulnar dimelia is a congenital anomaly and several papers presented in various journals. We received a patient a child of four years old with deformity of right upper limb. The child had fixed elbow of 10 and many fingers. Fingers were symmetrical to the midline axis and X-ray showed double ulna facing each other and Inner/medial ulna is longer than the lateral one. This is a rare entity and not reported till now in any literatures.

Keywords: Ulna, Dimelia, Pair ulna

INTRODUCTION

Ulnar dimelia or mirror hand deformity is very rare and reported in few journals and various surgeries were performed on children or neglected.¹ We wanted to give you to our four year old child a good, functional upper limb with usable hand. In this article we like to mention the rare malformation of one ulna longer than the other. a case report not reported globally.

CASE REPORT

We received a female child four years old with limited elbow movements with right upper limb deformities which is congenital, born to a non-consanguineous parents and the child was the first child in the family, delivered normally. On orthopaedic examination, shortening of the limb noticed, and FFD of 10 degrees and further flexion of 90* of elbow noticed. Radial deviation of hand, and all seven fingers arranged symmetrically. Shoulder ROM normal, forearm supination and pronation appeared normal, hand functions were normal like grasping an object, and lifting a small object. Left upper limb was totally normal roentgenogram showed two ulna facing each other and

the inner ulna is longer than the outer one which is a rare variant not reported. All metacarpals in one plane seen in the xray.¹

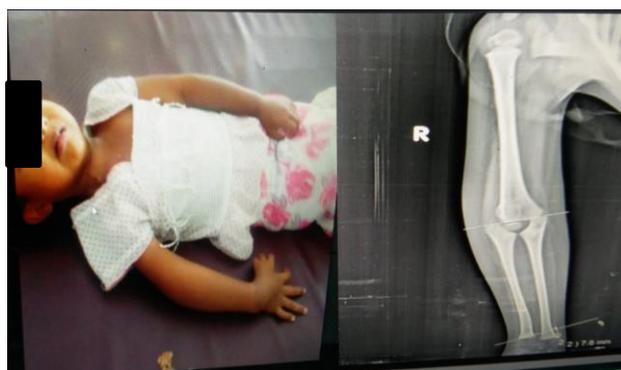


Figure 1: (A) Shown right upper limb with seven fingers; (B) X-ray right upper limb show two ulnar facing each other and the medial ulnar in longer.

Reconstructive surgery was planned in stages and muscles training was given,

Stage 1: Wrist distraction of soft tissues.

Stage 2: To have full length of one flexor muscle, and radially placed ulna proximal end cut and removed, to get more elbow movements

Stage 3: All lateral fingers removed except medial five with skin flap, all remaining all digits radially shortened. Normal above elbow pop applied for 1-1/2 months and then physiotherapy passively started.

DISCUSSION

Mirror hand is a rare congenital deformity reported in literatures.^{2,3} Usually the ulna is doubled and face each other or follow each other and reported literatures showed both ulna showed equal length. But in our case it showed outer ulna is shorter by 7.8 mm- a rare case report. Several classifications given by Al-Qattan and Thunayan classification do not mention this type of variation. No other literature mention this type of variation.^{5,6}

Considering the management though we have followed the previous procedures of Jafari did polizysation after excision of three digits in 20 year patient, AVADIES on a seven year old patient, Afshar also did in six digit patient.⁷⁻⁹

We found excision of radial ulna proximal part gave good elbow flexion, extension, supination and pronation of forearms.

Funding: No funding sources

Conflict of interest: None declared

Ethical approval: Not required

REFERENCES

1. Schmitt P, Guero S, Brunelle F. Ulnar dimelia: imaging modalities and surgical implications. *Radiol J.* 2000;81(3):219–22.
2. Sharif Z, Saleh DS. Ulnar dimelia. *J Orthop.* 2006;3(4):15.
3. Rabah S, Salati S, Wani S. Mirror hand deformity— a rare congenital anomaly of the upper limb. *Internet J Surg.* 2008;21(1):1-5.
4. Al-Qattan MM, Al-Thunayan A, De Cordier M, Nandagopal N, Pitkanen J. Classification of the mirror hand: multiple hand spectrum. *J Hand Surg (Br).* 1998;23:534.
5. Yang SS, Jackson L, Green DW, Weiland AJ. A rare variant of mirror hand: a case report. *J Hand Surg [Am].* 1996;21:1048–51.
6. Barton NJ, Buck-Gramcko D, Evans DM. Soft-tissue anatomy of mirror hand. *J Hand Surg [Br].* 1986;11:307–9.
7. Jafari D, Sharifi BA. Variant of mirror hand a case report. *J Bone Joint Surg [Br].* 2005;87:108–10.
8. Avadis AM, Haider AA. Ulnar dimelia, a case report. *Bas J Surg.* 2007;2:73–4.
9. Afshar A. Ulnar dimelia without duplicated arterial anatomy. *J Bone Joint Surg [Br].* 2010;92:293–6.

Cite this article as: Ram CM, Chidambaranathan G. Ulnar dimelia: a rare case. *Int J Res Orthop* 2019;5:350-1.