

Case Report – Reconstruction of hypoplastic duplicate thumb

Mr Clement Leung¹, Ms Rebecca Shirley², Ms Anca Breahna², Mr Mohammed Shibu²

¹Barts & The London School of Medicine

²Barts & The London NHS Trust

Introduction

Thumb duplication has an incidence of approximately 0.08 per 1,000 live births, with female-to-male ratio of 2.5:1, and is commonly graded according to the Wassel classification. Reconstruction of the thumb is aimed to restore normal structure and function, where the thumb should be sensate, stable and able to oppose to other digits. The importance of aesthetic appearance should be kept in mind as well.

Method

We report a case of a two-year-old girl with a right Wassel VI deformity with hypoplastic radial duplicate, which the child uses, and narrowed first web-space. The ulnar duplicate had well developed soft tissue.

Results

The patient underwent reconstructive surgery. The hypoplastic radial duplicate was preserved as it contained extensor pollicis longus and flexor pollicis longus tendons. Reflection of the skeleton from ulnar digit created the fillet flap. Dissection and elevation of a dorsal cutaneous flap from the radial digit was transposed ulnarly to recreate the first web-space. The fillet flap augmented the active radial digit. She was discharged the following day and to be reviewed in clinic in six-weeks time.

Discussion

Correct treatment of thumb duplication is vital to enable the child to meet functional developmental hand milestones. Soft tissue reconstruction is a fundamental aspect of the surgery.

Conclusion

Considerable care must be taken when planning excision of Wassel type thumb deformity. It is important to avoid soft tissue deficiency, which is a particular risk in the growing child. Physiotherapy, occupational therapy and specialist plastic surgery nurses are invaluable.