Reconstruction of a Supinated Hypoplastic Thumb with Combined Huber Transfer and Derotation Osteotomy: A Case Report

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Abstract

The use of the abductor digiti minimi transfer to restore opposition in patients with hypoplasia of the thumb has been widely described in the literature. It has been found to be effective in restoring abduction, but less so in restoring the rotational component of opposition. In cases where there is concomitant supination of the thumb, abductor digiti minimi transfer alone would not result in a good pinch as the thumb pulp is rotated away from the opposing finger. We present a case of a 6-year-old girl with a hypoplastic supinated left thumb which resembled a digit. There was also hypoplasia of the index finger. The hand had poor function as a result of lack of opposition of the thumb. The thumb function was restored by combining a derotational osteotomy (80°) with the abductor digiti minimi transfer originally described by Huber. Patient was able to hold small object using key pinch and she could pinch with opposition of the thumb pulp to the middle, ring and little finger pulps when reviewed 2 years post-surgery.

Key words: Congenital abnormal thumb, Corrective osteotomy, Tendon transfer

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