

Radialization v/s centralization procedures for high grade radial club hand: A randomised trial

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Background: Both radialization and centralization procedures have been described in literature for correction of radial club hand without any consensus as to which procedure has better results. This study aims to compare them in terms of radiological, clinical and functional outcomes.

Methods: 16 high grade (Heikel grade 3 and 4) radial club hands (14 patients) were randomized into 2 groups. 1st group (9 hands) underwent centralization and 2nd group (7 hands) underwent radialization. All patients were evaluated for clinical, radiological and functional outcome preoperatively and postoperatively at 3 months, 6 months and 1 year.

Results: Preoperative mean Clinical hand forearm angle (CHFA) in group 1 was 71.7° which improved to 10° at post operative 3 months and worsened to 14.4° and 21.1° at 6 months and 1 year respectively. In group 2 preoperative CHFA was 62.9° which improved to 1.4° at postoperative 3 months and deteriorated to 2.1° and 2.9° at 6 months and 1 year respectively. The radiological hand forearm angle (RHFA) for group 1 was 80.3° preoperatively which changed to 13°, 18.6° and 27.2° at postoperative 3 months, 6 months and 1 year respectively. The RHFA for group 2 was 65.1° preoperatively and changed to 2.1°, 3.6° and 7.0° at postoperative 3 months, 6 months and 1 year respectively. The functional outcome of both the groups was similar at all follow ups.

Conclusion: In our study, radialization fares better than centralization in terms of clinical and radiological outcome. However no significant difference in functional outcome was seen.

Biography

Samarth Mittal has completed his M.B.B.S at the age of 24 years from Goa Medical College, Goa University in India and M.S in orthopaedics from All India Institute of Medical Sciences, New Delhi in India in 2012. He is presently working on a teaching post as a senior resident in the Department of Orthopaedics at All India Institute of Medical Sciences, India. He has published 3 papers in indexed international journals and has also presented many papers at national and international conferences.

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