

LENGTHENING OF HAND SEGMENTS BY MINI-FIXATOR

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INTRODUCTION: Congenital and acquired segments' shortening or their absence is actual problem, because of hand dysfunction. **MATERIAL AND METHOD:** Last 6 years we had 399 patients with 571 congenital and acquired shortening of hand segments. Clinical, X-ray, electro-physiological, biometric and other examination methods were used before surgical treatment. **RESULTS:** Short segments' lengthening was done by Ilizarov mini-fixator. Distraction was performed in 7-8 days after osteotomy of short segment or its stump. Lengthening temp was 0.75mm 3 times per day. Distraction was finished after lengthening for 100-300% from original segment's size. After achievement of optical density of regenerate for 0.8 from maternal bone density we removed the frame. Frame removal without anesthesia and following fixation by plaster cast. In examination of late result we found out that achieved lengthening was kept, fingergrip restored, grip strength increased, cosmetic look improved. **CONCLUSION:** Mini-fixator construction work out in our Center help to restore short segments length, perform maximum possible restoration of hand anatomic shape and function; as a result, social adaptation and psychological status of patients improve.