I metacarpal lengthening after traumatic thumb amputation – case report

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Introduction:

Traumatic loss of hand fingers are common cases in emergency department. Not in every case is possible to rescue or replantate the finger. Sometimes is necessary to make an amputation. It is hard decision to make, especially in the thumb. We can reconstruct the thumb using toe, but there is also described method to lengthen metacarpal. In this study we present 2 cases of using such method.

Methods:

2 patients with traumatic thumb loss after working with the circular saw were admitted to Orthopedic Department in Kościerzyna. First of all they underwent operations of saving the thumb, but owing to the lack of neurovascular bundles they had to have an amputation. Because of good range of motion in CMC joint we decided to make two-step metacarpal lengthening. In first step patients have deepened the thumb web space. The second phase was osteotomy of the metacarpal bone and implantation of external fixator. Lengthening rate was 0,5mm twice a day.

Results:

After 7 months of lengthening, this procedure adds approximately 2 cm functional length to the thumb.

Conclusion:

Using distraction osteogenesis of I metacarpal bone, in cases of thumb amputations, can add some functional length to the thumb.