Delay treatment of intraarticular finger fractures.

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Results: Ten males and two females by mean age of 26.4 (range: 8-49) were treated and followed averagely for 9 months (range:4-34). The mean of total ROM was 207.5 (range: 105 -310) preoperatively and 270° (range: 95- 285) post operatively (p>0.01). Two fingers lost their fixation and had the stiff joint finally. One patient treated by hemi-hammate arthroplasty failed its fixation after 2 weeks and tolerated the revision surgery. This patient had clinically painless moving PIP (ROM: 5-65°) but radiologically subluxated join.

Background: The principles for treatment of intra-articular fractures include anatomic reduction, rigid internal fixation and mobilization of the joint as soon as possible. A paradox for these principles occurs when a displaced intra-articular fracture of finger joints is encountered after its acute phase. Delayed surgical intervention is notorious for resulting in a stiff finger. The purpose of this study is to assess the results of delayed open reduction and internal fixation of this type of finger fracture.

Method: Twelve intra-articular fractures of 12 patients were treated by mean delay of 26 days (range: 12 - 57). For 8 patients, open reduction by removing callus and fibrous tissue between osteo-cartilage fragments were cut by a number 11 blade knife and after reduction, fixation was achieved by screw, plate and screw, anchor suture and/or pins. For displaced and unstable fractures of one dorsal base P2 and 3 mallet fractures closed extension block pinning was done. Hemi-hammate arthroplasty was done for 4 patients by P2 volar base fracture.

Conclusion: The paradigm of / of fingers may be needed to be revised. More studies by large number of cases and comparison of different treatments are recommended.

Figure-1: A 23 year old male by 35 days delay after intraarticular fracture of PIP of small finger(a). After ORIF with screw(b), occupational therapy and dynamic extension splint near full ROM was achieved.

Figure-2: A 71 year old female with failed fixation of dorsal base fracture (a). After 56 weeks, pin removal led to redislocation. Extension block pinning (b)results in acceptable outcome (c&d).