

Flexor Tendon Injuries: A Protocol Based on Factors that Enhance Intrinsic Tendon Healing and Improves the Postoperative Outcome

Purpose: To evaluate the functional outcome after flexor tendon repair with application of simple postoperative protocols that advise early controlled movement aiming to enhance intrinsic tendon healing, minimizing adhesion formation and thus improving the functional outcome.

Methods: This study was done between June 2005 and May 2008, as a prospective study that included 225 cases with flexor tendon injuries. All the injured tendons were repaired using the Modified Kessler's technique, then splinting of the wrist and metacarpophalangeal joints was done in 20 and 40 degree flexion respectively and dynamic splinting of fingers was done. Early movement was induced starting from the first postoperative day with pain control. Evaluation of the outcome was assessed by the hand grip strength and by measuring the amount of active flexion of proximal and distal interphalangeal joints.

Results: 11 patients didn't attend for follow-up and were excluded from the final analysis. 205 patients out of 214 (95.8%) achieved an excellent to good functional grade in the final outcome, while 9 patients (4.2%) achieved a fair to poor outcome. Only 3 patients experienced tendon rupture (1.4%). Average follow up period was 5.2 months.

Conclusion: The use of proper technique for repair of flexor tendons of the hand, followed by early controlled movements as a method of choice that on scientific background should enhance intrinsic tendon he