

Towards a Splint-free Repair for Flexor Tendon Injuries

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Abstract

Flexor tendon injury has long been recognised as a difficult problem to tackle in hand surgery. Loss of active motion in the digits results in significant morbidity. The increased understanding in tendon healing, role of the tendon sheath, and the development of mobilisation and repair techniques have drastically improved results of flexor tendon injuries over the last 50 years. The treatment of flexor tendon injuries is based on evidence-based medicine, where clinical problems and new concepts were first evaluated in the biomechanical and animal laboratories and clinical practice is dictated by long-term outcome results. However, current surgical repairs are not strong enough to withstand active grip during rehabilitation and patients needed a prolonged period of protected rehabilitation until tendon healing is completed. The need for a more robust repair to allow a splint-free unprotected use of the hand should be the next step forward in the approach to flexor tendon injuries.

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