

Endobutton-Assisted Repair of Distal Biceps Tendon Ruptures in High-Performance Athletes.

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Summary:

Distal biceps tendon ruptures in high-performance athletes

Abstract:

BACKGROUND

The Endobutton technique of distal biceps tendon repair provides strong biomechanical fixation thus allowing for early postoperative rehabilitation especially in high performance athletes.

METHODS

Fourteen high level athletes with isolated traumatic distal biceps tendon ruptures underwent surgery using an anterior single-incision approach with the Endobutton technique. All patients were male, with a mean age of 27.5 years-old (range 20-42). The dominant side was involved in 11 patients and all refused addiction to tobacco, alcohol or steroids use. There were 6 weightlifters, 5 bodybuilders, 2 basketball players and 1 football player. Postoperatively, no splint was applied and passive full ROM was allowed for 2 weeks, followed by unrestricted active range of motion for the next 4 weeks. Return to athletic activities was allowed after 2-3 months. Patients were assessed at the final follow up using the Mayo Elbow and quick DASH questionnaires and they are examined for isokinetic flexion and supination strength and endurance testing.

RESULTS

At an average follow up period of 28 months, 12 patients (86%) returned to full athletic performance at the same level before injury. The mean Mayo Elbow score was 94.5 and the mean quick DASH 3.3. The mean strength for flexion was 98 % (SD 21.3) and for supination 96 % (SD 7.8), compared to the contralateral side. One patient developed postoperatively transient PIN palsy spontaneously resolved in 7 months. Two patients had marked heterotopic ossification in the radiographs without any clinical implication. No re-ruptures were happened and all patients were satisfied with the result.

CONCLUSIONS

This study shows that the distal biceps tendon repair using the endobutton technique, is a safe and reproducible method yielding excellent clinical results especially in high-performance athletes. Unrestricted full passive ROM immediately postoperatively and early active ROM after the first 2 weeks facilitates early return to high-level athletic performance.