Refixation of the distal biceps tendon with endobutton and tenodesis screw – preliminary results

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Introduction

Rupture of the distal biceps tendon is a relatevely rare injury with an incidence of ~1,2/100000 patients/ year. Most patients are male aged 30 – 60 years (1). There are a lot of different techniques for repair with – according to the literature – no big difference in the results (2). Looking for a simple and stable method, allowing early postoperative mobilisation, the Arthrex® Endobutton and Tenodesis Screw Set was chosen. We will report our preliminary results.

Patients/methods

During 11/2010 until 02/2012 17 male patients with a mean age of 46 (29 – 68) years had been operated on in the UKH Graz because of a distal biceps tendon rupture. Refixation was achieved by the "Tension Slide Technique" with the distal biceps tendon kit from Arthrex®. In this setting the tendon is anatomically reinserted by a volar approach. Radiological control is done intraoperatively (in 82%) and/or postoperatively (in 47%).

Results

According to the Score from Rantanen and Orava (3) ten atients (59%) scored excellent, five patients (29%) good and only two (12%) moderate. One patient had a partial rerupture, no revision surgery was necessary. In one case refixation was done too proximally – but nevertheless excellent result – and in one case too far distally with a loss of supination. In two patients we found temporary hypaesthesia in the region of the R. superficialis n. radialis. One patient suffered a partial lesion of the n. radialis with reduced function of the thumb. There was no infection.

Discussion

The presented technique is a very simple and stable technique which allows early range of motion exercise. The complication rate seems to be small, an intraoperative x-ray check is recommended to visualize the insertion point. The possibility of early functional aftercare could not be checked in this first series because the confidence in the new technique needed longer to be established as well in the mind of the surgeons as well in the physiotherapists' and patients' mind.

References

1. Safran MR, Graham SM. Distal biceps tendon ruptures: incidence, demographics, and the effect of smoking. Clin Orthop Relat Res. 2002;404:275-83.

2. Ryan G. Miyamoto, Florian Elser and Peter J. Millett. Distal Biceps Tendon Injuries. J Bone Joint Surg Am. 2010;92:2128-2138.

3. Rantanen J, Orava S. Rupture of the distal biceps tendon. Am J Sports Med 1999; 27: 128–132.