

# **THE ENDOSCOPIC REPAIR OF PARTIAL LESIONS OF THE DISTAL TRICEPS TENDON – FIRST PROSPECTIVE RESULTS OF 14 CASES**

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Partial tears of the distal triceps tendon are not well documented. Can the clinical and functional outcome by minimal invasive surgery of these injuries be improved?

We diagnosed a partial tear of the distal triceps tendon in 14 patients.

10 of these patients were suffering of chronic olecranon bursitis. All of these patients were treated with endoscopic surgery including a bursectomy and repair of the distal triceps tendon with double loaded suture anchors. First we performed an endoscopic bursectomy and created a subcutaneous working space. Then a mobilization of the tendon and a debridement of the footprint at the olecranon were done. One or two double loaded absorbable suture anchors were inserted in the olecranon. and the tendon was repaired with modified Mason Allen sutures.

We used the Mayo Elbow Performance index and the Quick DASH Score before surgery as well as 6 and 12 months after surgery in order to evaluate our results. Furthermore an isokinetic strength measurement in comparison to the unaffected contralateral side and a MRI was performed before surgery and 12 months after surgery.

All 14 patients were completely evaluated. This included 12 men and 2 women with an average age of 58.4 years. In 11 cases the dominant arm was affected and 12 patients remembered an at least a minor trauma in their history. 10 of 14 patients showed chronic olecranon bursitis, 6 of these patients had previous surgery.

The Mayo Elbow performance index preOP showed an average value of 67 points that increased after 6 months up to 89 points and after 12 months up to 91 points. The Quick DASH Score showed preOP 20.1 points, after 6 month 7.7 points and after 12 month 4.5 points.

In the preoperative isokinetic measurement we found 38.9% of the maximum isometric strength for the elbow extension compared to the contralateral arm. After 12 months we found an improvement of the isometric maximum strength up to 94.7%.

Two of our 14 patients developed a recurrent olecranon bursitis. In MRI we found one reruptured partial tear of the triceps tendon.

The rare partial tears of the distal triceps tendon are typically found in elderly patients or in power athletes. Nevertheless they are often masked by a more remarkable olecranon bursitis. The patients benefit from surgery especially with an improvement of extension strength. Endoscopic repair of partial distal triceps tendon tears leads to good clinical and radiological results after 12 months.