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Early Arthroscopic Repair of Acute Traumatic Massive Rotator Cuff Tears Leads to Reliable Reversal of Pseudoparesis: Clinical and Radiographic Outcome

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PURPOSE
It was the aim of this study to analyze the clinical and radiographic outcome after early arthroscopic repair regardless of the age of patients.

METHODS
Patients with massive traumatic cuff tear and clinical pseudoparesis for forward elevation treated by subsequent early arthroscopic repair from 2011 until 2014 were included in this retrospective study. Exclusion criteria were Goutallier grade ≥3 fatty infiltration and prior shoulder problems or surgery. Magnetic resonance imaging (MRI), radiographs, and functional assessments were performed preoperatively and at follow-up.

RESULTS
A total of 21 patients (male/female 15/6; age range: 30-83) were included. Preoperative MRI showed complete 2 tendon tears in 7 patients, 3 tendon tears in 13 patients and all tendons ruptured in one patient. All patients had full passive range of motion and the mean active elevation was 35.7° (range: 0°-60°). Nine patients also had a pseudoparesis for external rotation (mean: 10°, range: -30° to 40°). The mean delay until surgery was 33 days (range: 13-60). At follow-up (mean: 39 months, range: 24-60) all patients showed reversal of pseudoparesis, mean elevation of 165.2° (range: 110°-180°) and mean external rotation of 49.3° (range: -20° to 80°). The mean Constant score was 82 points (range: 56-95), and the mean subjective shoulder value was 93% (range: 50-100). The overall retear rate was 20% (n = 4). Fatty infiltration increased at least 1 grade in patients who had a retear and in 56% of patients (n = 9) without retear. Age was not a predictor for retear.

CONCLUSIONS
This study shows that early arthroscopic repair of traumatic massive RCT with pseudoparesis may lead to successful results regardless of patients' age. A complete restoration of the function can be expected even in patients with retear. The retear rate is low and the increase of fatty infiltration minimal.

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LEVEL OF EVIDENCE
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