

Good Functional Outcome after Late Surgical Treatment for Traumatic Rotator Cuff Tear, a Retrospective Cohort Study

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Abstract : Recommended treatment for traumatic rotator cuff tear (TRCT) is surgery within a few weeks after injury if the diagnosis is made early, especially if a functional impairment of the shoulder exists. This may lead to the assumption that a poor outcome then can be expected in delayed surgical treatment, when the patient is diagnosed at a later stage. The aim of this study was to investigate if a surgical repair later than three months after injury may result in successful outcomes and patient satisfaction. There is evidence in literature that good results of treatment can be expected up to three months after the injury, but little is known of later treatment with cuff repair. 73 patients (75 shoulders), 58 males/17 females, mean age 59 (range 34--72), who had undergone surgical intervention for TRCT between January 1999 to December 2011 at our clinic, were included in this study. Patients were assessed by MRI investigation, clinical examination, Western Ontario Rotator Cuff index (WORC), Oxford Shoulder Score, Constant--Murley Score, EQ--5D and patient subjective satisfaction at follow--up. The patients treated surgically within three months (< 12 weeks) after injury (39 cases) were compared with patients treated more than three months (≥ 12 weeks) after injury (36 cases). WORC was used as the primary outcome measure and the other variables as secondary. A senior consultant radiologist, blinded to patient category and clinical outcome, evaluated all MRI--images. Rotator cuff integrity, presence of arthritis, fatty degeneration and muscle atrophy was evaluated in all cases. The average follow--up time was 56 months (range 14--149) and the average time from injury to repair was 16 weeks (range 3--104). No statistically significant differences were found for any of the assessed parameters or scores between the two groups. The mean WORC score was 77 (early group, range 25-- 100 and late group, range 27--100) for both groups (p= 0.86), Constant--Murley Score (p= 0.91), Oxford Shoulder Score (p= 0.79), EQ--5D index (p= 0.86). Re--tear frequency was 24% for both groups, and the patients with re--tear reported less satisfaction with outcome. Discussion and conclusion: This study shows that surgical repair of TRCT performed later than three months after injury may result in good functional outcomes and patient satisfaction. However, this does not motivate an intentional delay in surgery when there is an indication for surgical repair as that delay may adversely affect the possibility to perform a repair. Our results show that surgeons may safely consider surgical repair even if a delay in diagnosis has occurred. A retrospective cohort study on 75 shoulders shows good functional result after traumatic rotator cuff tear (TRCT) treated surgically up to one year after the injury.

Keywords : traumatic rotator cuff injury, time to surgery, surgical outcome, retrospective cohort study

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