

LESS IS MORE

Arthroscopic
Trans
Osseo
Knotless



Arthroscopic Rotator Cuff Repair Using a Transosseous Knotless Anchor (ATOK)¹

Number of patients: 15 (Age > 60 years)

Results:

- No anchors displaced
- PROMs (Patient Reported Outcome Measures) from pre-operative to 2 years post repair
- ASES: 61 → 89
- Oxford Shoulder Scores: 26 → 44
- VAS Pain Score: 5 → 0.5
- Constant Score (Age adjusted): 62 → 91

Complications:

- 1 year clearly failed (failure of the tendon healing and connection to the suture rather than the hold of suture to the bone by the anchor, therefore demonstrating efficacy of the suture to bone fixation technique.)

Conclusion:

A true transosseous repair using the ATOK anchor via an arthroscopic approach rather than the Tran-Osseous equivalent (TOE) achieves the following benefits:

- Satisfactory clinical outcomes than published outcomes on a similar-aged cohort²
- Secure anchor stability in a patient group at risk of osteoporosis
- Improved blood supply, which may increase healing capacity
- Lower morbidity arthroscopic surgical approach

ATOK - OXSS (No failure)

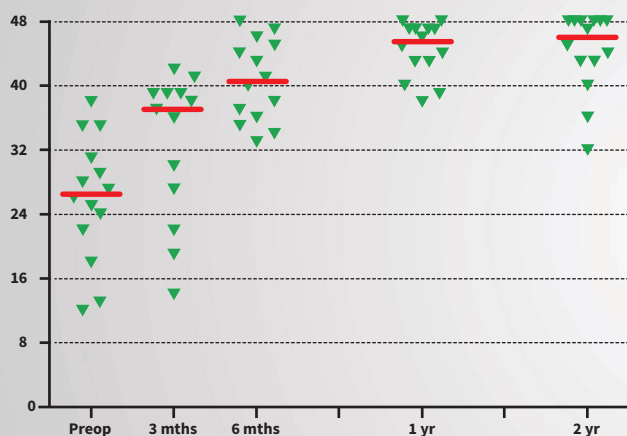


Figure 1: Oxford Shoulder Scores, preoperative and up to 24 months, excluding single failure (scatter plot with median).

ATOK - CONSTANT (No failure)

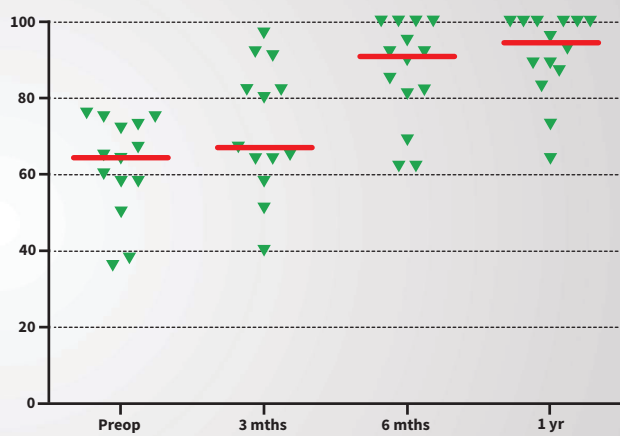


Figure 2: Constant score (age-adjusted), preoperative and up to 12 months. Scores were only recorded up to 12 months post-operatively, excluding single failure (scatter plot with median).

ATOK - ASES (No failure)

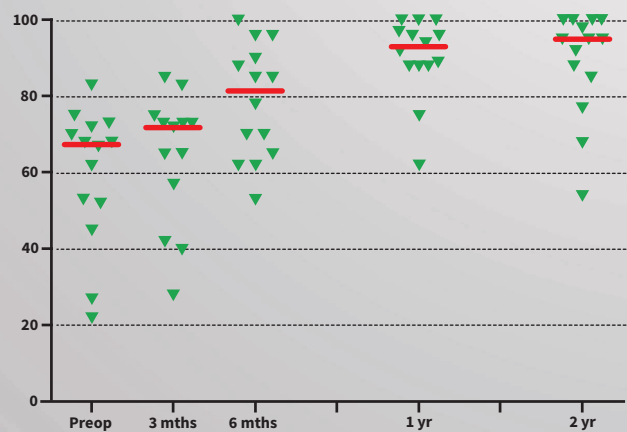


Figure 3: ASES Scores, preoperative and up to 24 months, excluding single failure (scatter plot with median). ASES, American Shoulder and Elbow Surgeons Standardized Shoulder Assessment Form.

ATOK - PAIN (No failure)

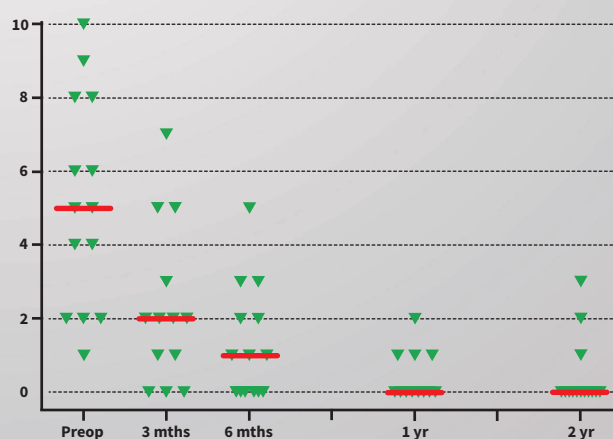


Figure 4: Pain score (0 = no pain to 10 = severe pain), pre-operative and up to 24 months, excluding single failure (scatter plot with median).

Sandow MJ, Schutz CR. Arthroscopic rotator cuff repair using a transosseous knotless anchor (ATOK). J Shoulder Elbow Surg. 2020 Mar;29(3):527-533. doi: 10.1016/j.jse.2019.07.017. Epub 2019 Sep 25. PMID: 31563504.

Gwark JY, Sung CM, Na JB, Park HB. Outcomes of arthroscopic rotator cuff repair in patients who are 70 years of age or older versus under 70 years of age: a sex- and tear size-matched case-control study. Arthroscopy 2018;34:2045-53.