

# ARTHROSCOPIC TENODESIS HAS A HIGHER RATE OF POPEYE DEFORMITY WHEN PERFORMED WITHOUT CUFF REPAIR

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# CONFLICT OF INTEREST

- Disclosure for Dr. Amini is available on the AAOS website.
- Remainder authors have no conflicts of interest

# INTRODUCTION

- A risk of clinical failure with Popeye deformity exists for all bicep tenodesis techniques
- The effect of concomitant rotator cuff repair on the failure rate of bicep tenodesis is unknown
- We hypothesized there would be no difference in rate of failure of bicep tenodesis with or without a concomitant cuff repair

# OBJECTIVE

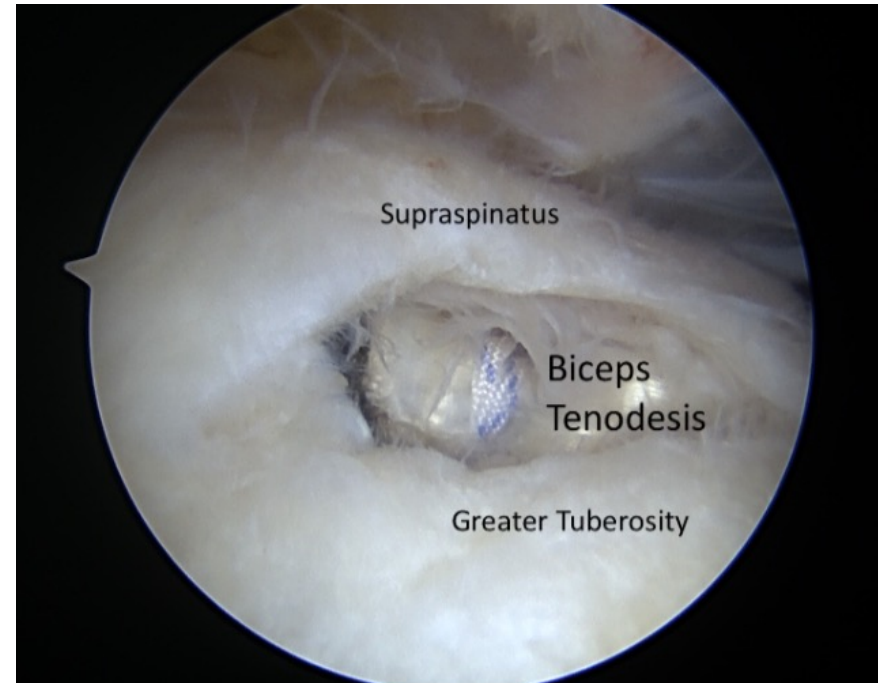
- To compare the rate of clinical bicep tenodesis failure, defined as a Popeye deformity post-operatively, in patients who underwent an isolated bicep tenodesis to those with concomitant rotator cuff repair

# METHODS

- A comparative retrospective cohort study of bicep tenodesis, with and without cuff repair
- Single surgeon (MHA) performed all procedures using same technique (arthroscopic intraarticular tenodesis)
- Same rehabilitation protocol: motion at 2 weeks, active motion at 6 weeks, strengthening at 3 months
- Minimum follow up: 6 months

# KNOTLESS ALL-ARTHROSCOPIC INTRA-ARTICULAR TENODESIS OF BICEP (KATOB)

- The technique uses a suture anchor to secure the biceps tendon in the intertubercular groove without tying a knot, minimizing the risk of complications.



# RESULTS

- 438 patients (101 isolated tenodesis, 337 with RCR)
- Failures:
  - Overall cohort: 3.4%
  - RCR cohort: 1.7%
  - Isolated bicep tenodesis cohort: 8.9%

# RESULTS

<b>Cohort</b>	<b>Rate of failure</b>
<b>Isolated Bicep Tenodesis</b>	8.90%
<b>Concomitant RCR</b>	1.70%

- p-value: 0.002
- Odds ratio: 4.4 (1.1-13.1, p=0.007)



# RESULTS

- Similar times to failure
- Predominately males
- Most failures (12/15) occurred within the first three months

<b>Cohort</b>	<b>Average Time to Failure (Days)</b>	<b>Percentage Male</b>	<b>Age (Average)</b>
<b>Isolated Bicep Tenodesis</b>	62 (47)	100% (6/6)	49 (12)
<b>Concomitant RCR</b>	57 (32)	78% (7/9)	57 (4)

# DISCUSSION

- Arthroscopic intraarticular biceps tenodesis has a higher failure rate when performed without concomitant RCR.
- Further studies are needed to understand the underlying mechanism for this finding.

# CONCLUSIONS

- Patients who undergo isolated biceps tenodesis have a higher rate of clinical failure with Popeye deformity than those who have a concomitant rotator cuff repair