

## **Biceps Tenodesis versus Superior-Labrum Anterior to Posterior (SLAP) Repair for SLAP Tears in Younger Patients: A Systematic Review and Meta-Analysis**

Eoghan T Hurley, Rafeal L Baker, Richard Michael Danilkowicz<sup>1</sup>, Jay Micael Levin<sup>2</sup>, Richard Michael Danilkowicz<sup>1</sup>, Jonathan F Dickens, Oke A Anakwenze<sup>3</sup>, Christopher Klifto

<sup>1</sup>Duke University Medical Center, <sup>2</sup>Duke Health, <sup>3</sup>Duke Orthopedics Arrington

**INTRODUCTION:** Arthroscopic superior-labrum anterior to posterior (SLAP) repair is the most commonly performed procedure for type II SLAP tears in younger patients, but there has been a recent shift in performing more primary biceps tenodesis in younger patients. The purpose of this study is to systematically review the comparative studies in the literature to ascertain if biceps tenodesis or SLAP repair results in superior clinical outcomes in the treatment of type II SLAP tears in patients under 40.

**METHODS:** A systematic search of articles in PubMed, EMBASE and The Cochrane Library databases was carried out according to the PRISMA guidelines. Cohort studies comparing biceps tenodesis to repair in type II SLAP tears in patients under 40 were included. All statistical analysis was performed using same software. A p-value of < 0.5 was considered to be statistically significant.

**RESULTS:** Five studies with 299 patients were included. Biceps tenodesis resulted in similar rates of return to play (78.5% vs. 67.7%,  $p = 0.33$ ), compared to SLAP repair, and there was no significant difference in return to play in overhead athletes (83.6% vs. 74%,  $p = 0.82$ ). There was a significant difference in SANE score in favor of biceps tenodesis ( $p = 0.04$ ), but no difference in ASES score ( $p = 0.27$ ) or VAS score ( $p = 0.48$ ). There was no significant difference in reoperation rates (2.9% vs. 10.8%,  $p = 0.22$ ).

### **DISCUSSION AND CONCLUSION:**

This study found that biceps tenodesis resulted in similar rates of return to play in athletes, as well as functional outcome scores and rates of revision surgery in younger patients.