

+ Evidence in focus

Publication summary: Bushnell BD, et al. *J Shoulder Elbow Surg Int* (2021)*

The use of the REGENETEN[®] Bioinductive Implant in repair of medium-sized and large full-thickness rotator cuff tears leads to low re-tear rates at 3 and 12 months

+ Plus points

89.5%

Patients with large tears free from re-tear at 12 months (34/38) after a double-row repair with a REGENETEN Implant

91.7%

Patients had improvements that exceeded the MCID in ASES score at 12 months

96.5%

Patients were satisfied at 12 months

Overview

- Interim analysis of a prospective, multicentre case series evaluating the REGENETEN Implant to augment single- or double-row repair of medium-sized (1–3cm; n=66) and large (3–5cm; n=49) full-thickness rotator cuff tears
- Outcomes assessed 3 and 12 months postoperatively included:
 - MRI evaluation of re-tear, tendon thickness and implant resorption
 - Clinical outcomes: American Shoulder and Elbow Surgeons (ASES) and Constant-Murley Shoulder (CMS) scores

Results

- Overall re-tear rate of 11.3% at 3 months (13/114) and 16.5% at 12 months (19/114)
- At 12 months, re-tear rates in large tears were significantly lower with double-row (10.5%; 4/38) than single-row repair (72.7%; 8/11; $p < 0.001$)
 - Re-tear rates in medium tears were not significantly different between double-row (11.3%; 6/53) and single-row repair (7.7%; 1/13; $p = 0.425$)
- More than 85% of patients had postoperative improvements in ASES and CMS scores that exceeded minimal clinically important differences (MCIDs; Figure)
- 96.5% of patients were satisfied; all 113 surveyed patients would recommend the procedure to a friend
- Nine reoperations: 7 for persistent symptoms, 1 for superficial infection and 1 for inflammation and osteopenia

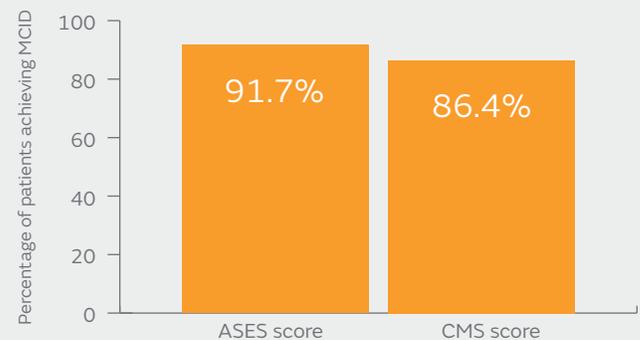


Figure. Percentage of patients with postoperative improvements in ASES and CMS scores that exceeded MCIDs at 12 months

Conclusions

In conjunction with repair of full-thickness rotator cuff tears, the REGENETEN Implant led to low 12-month re-tear rates, improvements in pain and function and very high patient satisfaction. The authors suggest that REGENETEN Implant re-tear rates were lower than reported in studies evaluating standard repairs, especially in double-row repairs of large tears.

Citation

*Bushnell BD, Connor PM, Harris HW, Ho CP, Trenhaile SW, Abrams JS. Re-tear rates and clinical outcomes at 1 year following repair of full-thickness rotator cuff tears augmented with a bioinductive collagen implant: A prospective multicenter study. *J Shoulder Elbow Surg Int*. 2021;5:228-37.

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