

+ Evidence in focus

Publication summary: Schlegel TF, et al. *J Shoulder Elbow Surg* (2020)*

REGENETEN[®] Bioinductive Implant reduced the size of partial-thickness rotator cuff tears by over 50% in all tear locations

+ Plus points

87%

partial-thickness tears treated with a REGENETEN Implant reduced in size by >50%



No tear progression

in patients compliant with the rehabilitation protocol



Consistent results

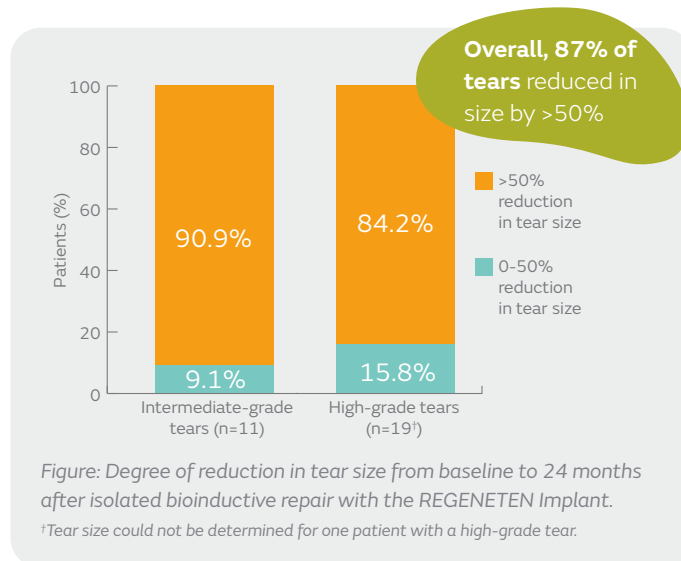
in all tear locations: articular-sided, bursal-sided, intrasubstance and hybrid tears

Overview

- Prospective, multicentre case series of isolated bioinductive repair with the REGENETEN Implant for intermediate- (n=12) or high-grade (n=21) partial-thickness rotator cuff tears
 - 11 articular-sided, 10 bursal-sided, 4 intrasubstance and 8 hybrid tears were enrolled
- 31/33 patients were available at 24-month follow-up
- Outcomes assessed at 3, 12 and 24 months included:
 - MRI assessment of defect fill, tendon thickness and progression to a full-thickness tear
 - Clinical outcomes: American Shoulder and Elbow Surgeons (ASES) and Constant-Murley Shoulder (CMS) scores

Results

- At 24 months, 87% of tears (26/30) had reduced in size by >50% from preoperative measurements (Figure)
- No compliant patient progressed to a full-thickness tear; one non-compliant patient progressed ~1 month after surgery
- Significant increase in mean tendon thickness from preoperative values to 24 months of 1.2 and 1.8mm in intermediate- and high-grade tears, respectively (p<0.012)
- Improvements in CMS score met or exceeded minimal clinically important differences (MCIDs) for all patients with intermediate-grade tears and 94% of patients with high-grade tears
- No significant difference in clinical outcomes, tear healing or tendon thickness based on tear location: articular-sided, bursal-sided, intrasubstance or hybrid
- All 28 surveyed patients would recommend the procedure to a friend



Conclusions

In a prospective, multicentre case series of isolated bioinductive repair with the REGENETEN Implant, 87% of partial-thickness tears reduced in size by >50% at 24 months. Improvements in clinical outcomes, tear healing and tendon thickness were consistent in all tear locations including articular-sided and intrasubstance tears.

Citation

*Schlegel TF, Abrams JS, Angelo RL, et al. Isolated bioinductive repair of rotator cuff tears. *J Shoulder Elbow Surg*. 2020;Nov 18 [ePub ahead of print]

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