REGENETEN® Bioinductive Implant promotes rapid and sustained healing of partial-thickness (PT) rotator cuff tears

Tear healing is linked to significant improvement in function and reduction in pain compared to preoperative values over 24 months

Study overview

- A prospective study of 13 patients (mean age, 53.8 years) with various grades and locations of PT tears of the supraspinatus tendon
- All patients received a REGENETEN Bioinductive Implant over the bursal surface of the tendon following arthroscopic subacromial decompression without repair
- MRI and clinical outcome assessments were conducted preoperatively and at 3, 6, 12 and 24 months postoperatively

Key results

- Significant mean increase in tendon thickness of 2.2mm at 3 months versus preoperative values (p<0.0001)
- At 12 months, new tissue was indistinguishable from underlying tissue in 12/13 patients (92%)
- Tendon thickness at 24 months was significantly thicker (p<0.0001) than preoperative values
- At 12 months, all assessable patients had a reduction in tear size of ≥1 grade, with complete tear disappearance in 7 of 10 patients with measurable tear size (70%) [Figure]
- Significant improvement in clinical scores throughout 24-month follow-up period
  - Constant-Murley score (p≤0.01) and Constant-Murley pain score (p≤0.001)
  - American Shoulder and Elbow Surgeons (ASES) total score and ASES pain score (both p<0.001)
- Outcomes were satisfactory for 12/13 patients (92%) at 24 months, suggesting a benefit over acromioplasty alone

Conclusion

When treated with REGENETEN Bioinductive Implant, partial-thickness rotator cuff tears can decrease in size and in most cases completely heal. Tear healing is associated with the formation of load-bearing, tendon-like tissue, ultimately leading to improved clinical outcomes.

Study citation

Available at: Muscle, Ligaments and Tendons Journal