

Late Revision Surgeries for Scaphotrapeziotrapezoid Limited Wrist Arthrodesis: Case Series STT to SLAC

Reconstruction

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Background:

Triscaphe arthrodesis is a well described treatment option for a variety of wrist conditions, including STT arthritis, Kienbocks disease, carpal instability, and rotary subluxation of the scaphoid. Currently there is not a clear algorithm for patients with a history of STT fusion who develop late radioscaphoid degenerative joint disease (DJD). The objective of our study was to determine how patients requiring late revision present and how they fare with conversion to SLAC wrist reconstruction.

Methods:

We performed a retrospective chart review based on CPT codes over the past 15 years. We included patients who had late conversion of STT fusion to SLAC wrist reconstruction and had at least one year follow-up after the SLAC reconstruction. Presenting symptoms, radiographic results, operative findings, and postoperative results were analyzed.

Results:

A total of 5 patients were identified based on the inclusion criteria. The average time to conversion was 25 years. Presenting symptoms included radial-sided wrist pain and decreased arc of wrist motion. Examination revealed significant dorsal radiocarpal tenderness with periscaphoid irritability. Radiographic findings included mature and remodeled STT fusions but also evidence of advanced radioscaphoid degenerative disease with preservation of the radiolunate interval. The patients were converted to SLAC wrist reconstruction by taking down of earlier limited wrist arthrodesis, scaphoid excision, synovectomy, and capitate, lunate, hamate, and triquetrum limited wrist arthrodesis with autologous bone graft from the resected scaphoid. There were no superficial pin tract or deep wound infections. No patients developed nonunion. The average follow-up period after conversion was 11.6 months. At follow up, results revealed preservation of wrist motion and good patient satisfaction postoperatively.

Conclusion:

Conversion to SLAC wrist reconstruction is a safe and viable option for patients with prior STT fusion who go on to develop advanced radioscaphoid DJD.