Arthroscopic Radial Styloidectomy for SLAC and SNAC Wrists

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OBJECTIVE
To report the early results of arthroscopic radial styloidectomy (ARS) for scapholunate advanced collapse (SLAC) and scaphoid nonunion advanced collapse (SNAC) wrists.

METHODS
Subjective and objective data were collected by an occupational hand therapist preoperatively and at 1, 3, 6, and 12 month follow-up intervals.

Measurements included: wrist ranges of motion, grip strength, disabilities of arm, shoulder, and hand (DASH) questionnaire (0-100, higher score= greater disability), numeric rating scale (NRS) for pain (0-10; 0= no pain, 10= worst possible pain), satisfaction (0-5; 0= not at all satisfied, 5= completely satisfied).

RESULTS
One patient failed and underwent revision surgery for persistent pain. Mean age was 56 years (range 39 - 78). Average follow-up was 16 months. There were 10 males and 2 females.

The dominant hand was involved in 6 cases. Preoperative indication was SNAC in 2 cases and SLAC in 10 cases. Two cases involved worker’s compensation claims. Mean pain score improved from 7 preoperatively to 2, 2, 1 and 1 at 1, 3, 6, and 12 month postoperative follow-up respectively. Mean grip strength improved from 19kg preoperatively to 24kg postoperatively. Mean 1 year satisfaction score was 4.7. Mean flexion was 37° preoperatively, 47° at 6 months and 50° at 1 year. Mean extension was 50° preoperatively, 51° at 6 months, and 58° at 1 year. Preoperative radial-ulnar deviation arc was 35° compared to 44° at 1 year. Average tourniquet time was 36 minutes (range 27-45).

CONCLUSION
Short-term analysis suggests that ARS for SNAC and SLAC wrists is a viable surgical alternative, which seems to allow faster recovery than more traditional surgical interventions such as four corner fusion and proximal row carpectomy. Pain improves rapidly and does not change significantly after 6 months. Surgical indication and patient selection require further study. Continued surveillance is required to determine long-term outcomes.