



High Survivorship and Few Complications With Cementless Total Wrist Arthroplasty at a Mean Followup of 9 Years

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Objective

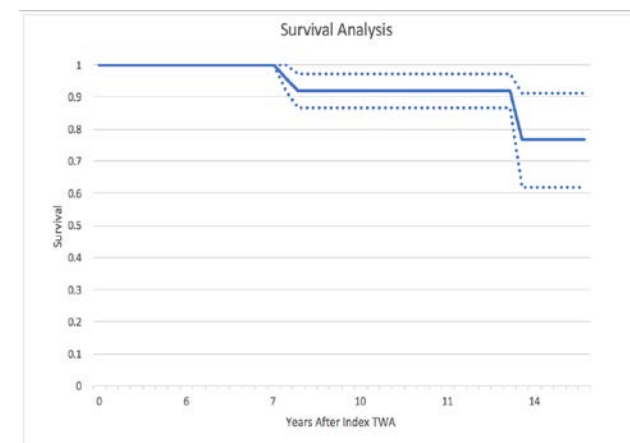
- (1) To report ROM and pain scores after wrist reconstruction with cementless fourth-generation TWA at a mean followup of 9 years (range, 4.8-14.7 years).
- (2) To report complications of a cementless fourth-generation TWA and the cumulative probability of not undergoing a revision at a mean followup of 9 years.

Methods

- Retrospective case series of 69 patients treated for pancarpal wrist arthritis between 2002 and 2014
- Mean age of the 39 patients who had TWA was 56 ± 8.9 years (range: 31-78) at the time of surgery; 36 were women and three were men.
- The patients who underwent TWA were seen at a minimum of 4 years (mean, 9 years; range, 4-15 years).
- Subjective pain score was assessed by a verbal pain scale (0-10) and ROM was measured with a goniometer.
- At latest followup, radiographs were analyzed for evidence of loosening.
- Complications were recorded
- Kaplan Meier survival analysis was performed to estimate the cumulative probability of not undergoing a revision.

Results

- Mean preoperative active ROM was $34^\circ \pm 18^\circ$ flexion and $36 \pm 18^\circ$ extension.
- Postop: mean active ROM was $37^\circ \pm 14^\circ$ flexion and $29^\circ \pm 13^\circ$ extension.
- Mean difference between the preoperative pain score (8.6 ± 1.2) and postoperative pain score (0.4 ± 0.8) was 8.1 ± 1.9 ($p < 0.001$).
- Implant loosening occurred in three (7.7%) patients. No other complications occurred in this series.
- The cumulative probability of remaining free from revision was 78% (95% CI, 62%-91%) at 15 years



Conclusion

- Cementless fourth-generation TWA improves pain while generally preserving the preoperative arc of motion.
- The cumulative probability of remaining free from revision at 14.7 years after the index procedure is 77.7% (95% CI, 62.0%-91.4%).

Reference

Gil JA, Kamal RN, Cone E, Weiss A-PC. High Survivorship and Few Complications With Cementless Total Wrist Arthroplasty at a Mean Followup of 9 Years. *Clin Orthop Relat Res.* 2017;475(12):3082-3087.