Clinical Outcomes of Revision Arthroscopic Osteocapsular Arthroplasty in Primary Elbow Osteoarthritis: A Retrospective Cohort Study

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INTRODUCTION:
Arthroscopic osteocapsular arthroplasty (OCA) achieves significant medium-term outcomes in patients with primary elbow osteoarthritis (OA); however, outcomes after revision arthroscopic OCA are not well known. This study was to assess clinical outcomes after revision arthroscopic OCA as compared with those after primary surgery in patients with OA.
METHODS: Patients who underwent arthroscopic OCA attributed to primary elbow OA between January 2010 and July 2020 were enrolled. Range of motion (ROM), visual analog scale (VAS) pain score, and Mayo Elbow Performance Score (MEPS) were assessed. Operation time and complications were assessed by chart review. Clinical outcomes between the primary and revision surgery groups were compared, and subgroup analysis for radiologically severe OA was performed.
RESULTS: Data from 61 patients were analyzed (primary, n = 53; revision, n = 8). The mean ± SD age was 56.3 ± 8.5 and 54.3 ± 8.9 years in the primary and revision groups, respectively. The primary group had significantly better ROM arcs preoperatively (89.9°± 20.3° vs 71.3°± 22.3°; P = .021) and postoperatively (112.4°± 17.1° vs 96.9°± 16.5°; P = .019) than the revision group; however, the degree of improvement was comparable (P = .445). Postoperative VAS pain score (P = .164) and MEPS (P = .581) were comparable between the groups, as were the degrees of improvement in VAS pain score (P = .691) and MEPS (P = .604). The revision group required a significantly longer operative time than the primary group (P = .004) and had a nonsignificant higher complication rate (P = .065). Subgroup analysis showed that radiologically severe cases in the primary group had significantly better preoperative (P = .010) and postoperative (P = .030) ROM arcs than the revision group and a comparable postoperative VAS pain score (P = .155) and MEPS (P = .658).
DISCUSSION AND CONCLUSION: Revision arthroscopic OCA is a favorable treatment option for primary elbow OA with recurrent symptoms. Postoperative ROM arc was worse after revision surgery as compared with primary surgery; however, the degree of improvement was comparable. Postoperative VAS pain score and MEPS were comparable with primary surgery.