Survivorship after Arthroscopic Management of Glenohumeral Osteoarthritis with a Minimum 5 year Follow-up

Justin J. Mitchell, MD, Marilee P. Horan, MPH, Joshua A. Greenspoon, BSc, Dimitri S. Tahal, MSc, Peter J. Millett, MD, MSc

Center for Outcomes-based Orthopaedic Research at the SteadmanPhillipson Research Institute, Vail, Colorado, USA

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INTRODUCTION

Glenohumeral osteoarthritis (GHOA) is a common cause of shoulder pain and dysfunction. Total shoulder arthroplasty (TSA) is not ideal in younger patients due to durability concerns, component loosening, risk of revision, and decreased component survival.\(^1,2\)

Arthroscopic management is the preferred treatment strategy in patients aged < 47 years & TSA for those aged > 66 years.\(^3,4\)

There have been promising results in managing GHOA and delaying TSA at minimum 2-year follow-up with CAM.\(^3,4\)

The purpose of this study was to report mid-term outcomes and survivorship for the CAM procedure for the treatment of GHOA at a minimum of 5-years follow-up.

METHODS

This was an IRB-approved study.

Between 1/2006 & 6/2010 on consecutive patients

CAM surgery for GHOA by PJM (Figure 1)\(^2\)

Inclusion criteria:

- Kellgren-Lawrence Grade II, Iii, or IV changes
- Failed non-op modalities
- Met clinical & radiographic criteria for TSA but desired a joint preserving option

Exclusion criteria:

- Patients with mild OA, irreparable cuff tears, humeral head flattening
- Pre-op & post-op outcomes were assessed with ASES, QuickDASH, SF-12 PCS, SANE, VAS pain today, & at worst patient satisfaction
- Kaplan-Meier Survivorship analysis
- TSA as failure endpoint

RESULTS

- 49 shoulders (46 consecutive patients) who underwent a CAM procedure
  - 2 shoulders (2 patients) were excluded for refusing to participate
  - Leasing, 47 shoulders (44 patients) for analysis. Mean age at surgery was 52 years (range, 27-68 years) in 15 women & 29 men
  - For survivorship analysis, defined as preservation of native shoulder or progression to TSA at 5 years was known for 45/47 (96%) of the shoulders
  - 12 shoulders (25%), in 9 men & 3 women progressed to TSA
  - A mean of 2.6 years (range 0.5 - 8 years) (Table 1).
  - Survivorship was found to be 95.8% at 1-year, 86.7% at 3-years, and 76.9% at 5-years (Figure 2).
  - Of the 35 shoulders that did not progress to TSA, 3 patients declined completing outcome scores
  - 28/32 (87.5%) patients completed outcome scores at a mean of 5.7 years (range, 5–8 years) (Table 1). In this patient population, no intraoperative or postoperative complications were noted.

CONCLUSIONS

This study demonstrates significant improvements in mid-term clinical outcomes and high satisfaction following the arthroscopic CAM procedure for GHOA.

76.3% survivorship at a minimum of 5 years post-op.

For patients looking for an alternative to TSA, the CAM procedure can provide reasonable outcomes and should be considered an effective procedure in appropriate patients.

Further studies are warranted to evaluate long-term outcomes and durability following this procedure.

REFERENCES