

Short-Term Postoperative Outcomes of Arthroscopic Surgery for Femoroacetabular Impingement in the Presence of Osteoarthritis

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Summary:

Short-term postoperative outcomes of arthroscopic surgery for femoroacetabular impingement in the presence of osteoarthritis

Abstract:

BACKGROUND

Some studies have shown the poor clinical outcomes following hip arthroscopy for FAI in the presence of osteoarthritis (OA). In the vast majority of studies, surgeons performed labral debridement if labrum irreparable. Thus we hypothesize that labral preservation including labral reconstruction and/or repair could improve clinical outcomes following hip arthroscopic FAI correction in FAI patients with OA.

PURPOSE

To investigate the clinical outcomes following arthroscopic labrum repair and/or reconstruction surgery for FAI in the presence of OA.

METHOD

Ninety-eight FAI patients with age of 30 years and older who underwent hip arthroscopic surgery between March 2009 and December 2012 were enrolled in this study. We exclude the patients with follow-up period was 1 year or less, center edge (CE) angle was 20 degree or less, bilateral surgery, a history of previous surgery, or a concomitant osteochondromatosis. Patients were divided into two groups; FAI group (89 hips), with Tonnis grade 0 or 1 on preoperative X-ray, FAI-OA group (9 hips), with Tonnis grade 2 or 3. We examined clinical outcomes at 1 year postoperatively and at the final follow-up using the Modified Harris Hip Score (MHHS) and Non-arthritis Hip Score (NHS). We also evaluated the rates of conversion to total hip arthroplasty (THA).

RESULTS

There were no significant differences between two groups regarding age (48.9 ± 11.7 [30-76] years vs. 50.8 ± 11.2 [30-65] years), follow-up period (21 ± 9 [12-42] months vs. 18 ± 6 [12-30] months), or proportion of women (60% vs. 44%). The MHHS and NHS at the time of the final follow-up were significantly lower in the FAI-OA group than those in the FAI group (MHHS: 91.0 ± 12.4 [31.9-100] vs. 73.5 ± 16.2 [50.6-92.4], $P=0.001$, NHS: 83.9 ± 14.6 [37.5-100] vs. 69.8 ± 16.4 [46.3-95], $P=0.016$; Mann-Whitney U test). Two patients in the FAI group converted to THA after arthroscopic surgery (including 1 who converted within 1 year after surgery), while 3 patients in FAI-OA group converted to THA (2 converted within 1 year after surgery). Significant difference was seen in the rate of conversion to THA (2% vs. 27%, $P=0.009$; Fisher's exact test).

DISCUSSION

Regardless arthroscopic labrum repair and/or reconstruction, clinical outcomes in FAI in the presence of OA were lower than those in FAI without OA. The limitation of this study is the small number of patients, retrospective study

ISAKOS

**International Society of Arthroscopy, Knee Surgery and
Orthopaedic Sports Medicine**

10th Biennial ISAKOS Congress • June 7-11, 2015 • Lyon, France

Paper #187

and no control group (conservative treatment).

CONCLUSION

Patients with radiographic advanced arthritis did not improve after hip arthroscopy regardless labral preservation and had better be continued with conservative treatment and consequently hip arthroplasty.