Independent Risk Factors for Poor Outcome after Hip Arthroscopy: Results after minimum two-year follow up in 258 patients

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Disclosures

• Consultant (TY)
  • Arthrex
  • Smith and Nephew
Introduction

• Hip arthroscopy increased 18x from 1999-2009
  • Colvin, JBJS 2012

• Why?
  • Increased awareness of hip pathology
  • Radiologic advances (MRI, diagnostic injections)
  • Increase exposure/training during residency/fellowship
  • Expanding indications
Predictors of poor outcomes

- Arthritic changes
  - Tonnis grade 2 or greater
  - Joint space < 2mm

- Older age

- Longer duration of symptoms
  - >1.5 years

- Worse pre-operative mHHS
Methods

• **Prospectively-collected data** from patients who underwent primary hip arthroscopy by single sports fellowship trained surgeon

  • Collection period: 2009 – Present

• Database with *demographic, surgical, and outcome data*

• Patient reported outcome (PRO) scores
  • mHHS (Modified Harris Hip Score)

  Baseline → 1 month → 3 months → 6 months → 1 year → 2 years
Statistical Analysis

• SAS® version 9.3 (SAS Institute, Cary NC) used for statistical analysis
  • Continuous variables analyzed with Student’s T-test
  • Categorical variables evaluated with the Fisher Exact test or Chi-squared analysis

• P-values <0.05 were considered statistically significant for all calculations.

• Poor outcome defined as requiring revision procedure, conversion to THA, or mHSS < 70

• Multivariate logistic regression was performed to identify independent risk factors for “poor outcome”
Results

- 70 patients in study population who met criteria for “poor outcome” at two years
  - 43 revised or converted to THA (61%)
  - 27 reported mHSS < 70 (39%)

- Compared to 188 patients defined as success at two years

- For the 258 patients included mHSS improved from an average of 49.6 to 83.6 at two years resulting in mean improvement of 34.1 ($p<0.001$)
Independent risk factors

• Obesity (OR 2.1; p=0.04)

• Pre-operative mHHS < 40 (OR 3.34, p<0.001)

• Female gender (OR 1.79; p=0.03)
Discussion

- Statistically significant improvements in mHHS and NAHS at two-year follow-up

- Consistent with previous reports of poorer outcome at two-year follow-up in:
  - Females
  - Patients with lower pre-operative hip scores
  - Obese patients
Conclusion

• Hip arthroscopy can lead to favorable outcomes in the appropriately selected patient

• The authors used strict criteria to define poor outcomes after hip arthroscopy including requiring any revision procedure, conversion to THA, or post-operative 2-year mHSS < 70

• Further prospective trials are required to further narrow the focus on appropriately selected patients for this surgical modality

• Surgeons should discuss the possibility of requiring revision surgery or conversion to THA especially in females, obese patients, or those with pre-operative mHSS lower than 40
References


