

Predictors Of Inferior Outcomes Following Hip Arthroscopy For Femoroacetabular Impingement.

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Introduction

- A few number of patients after hip arthroscopy for the treatment of FAI progress to failure .
- Not every patient with inferior clinical outcome after hip arthroscopy will undergo revision or progress to THA.

Purpose: our objective was to identify clinical and radiographic characteristics predictive of inferior outcomes 2-years following hip arthroscopy for FAI.

Method

Patient Selection: Consecutive patients undergoing primary hip arthroscopy for FAI with a minimum of 2 year outcome were identified using our institutional hip registry between 1/2012 and 1/2014.

Intraoperative data: Procedures performed included labral debridement and repair, acetabular rim trimming, femoral osteochondroplasty and capsular plication.

Methods

- **Primary outcome measure:** HOS-ADL questionnaire.
- **Secondary outcome measures:** HOS-SS and HHS.
- **Exclusion criteria:** Patients that progressed to revision hip arthroscopy or THA.

Patient groups:

Using the HOS-ADL scores patients were divided into top and bottom quartiles forming the superior outcome group and Inferior outcome groups respectively. Multivariate and bivariate analysis were used to compare demographic, preoperative, intraoperative and postoperative variables between these groups.

Results

- 98 patients in each group. Superior outcome group were younger, had lower BMI, higher HOS -ADL (97.06 or higher) than the inferior group (80.5 or less) with higher preoperative average joint space width ($4.2 \pm 0.5\text{mm}$ vs. $3.7 \pm 0.4\text{mm}$; $p=0.009$) and postoperative alpha angle (42.3 ± 4.4 vs. 38.4 ± 3.7 $p=0.001$).
- The inferior outcome group had higher incidence of smoking ($P=0.005$), workers compensation claims ($p=0.04$) and history of psychiatric diagnosis ($p=0.007$)

Results

	Superior group	Inferior group	P-value
No of patients	98	98	
HOS-ADL	> or =97.06	< or =80.5	
Age	30.7 ± 12.8 vs 3	38.0 ± 11.8	0.001
BMI	24.1 ± 4.1	26.5 ± 5.1	0.005
Average joint space width	4.2 ± 0.5mm	3.7 ± 0.4mm	0.009
postoperative alpha angle	42.3 ± 4.4	38.4 ± 3.7	p=0.001

Results

- Multivariate logistic regression analysis revealed that older age ($p=0.00674$), higher BMI ($p=0.02629$), and smoking ($p=0.01863$) were independent predictive factors of inferior outcome.
- Both groups demonstrated significant improvements in HOS-ADL, and HHS scores, however the inferior outcome group did not have significantly improved HOS-SS scores ($p=0.06$).

Conclusion

- This study showed that preoperative factors such as psychiatric history, workers compensation status, reduced preoperative joint space, age, BMI and smoking are all predictors of inferior clinical outcomes in the 2 years following arthroscopic treatment of FAI.
- This knowledge can be considered while counselling patients undergoing arthroscopic procedures of FAI.