

Responsiveness of Faber Distance and Hip Range of Motion Following Arthroscopic Surgery in Patients with Symptomatic Femoroacetabular Impingement

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Disclosures

- Allston J. Stubbs, M.D., M.B.A.
 - I have financial relationships with the following companies:
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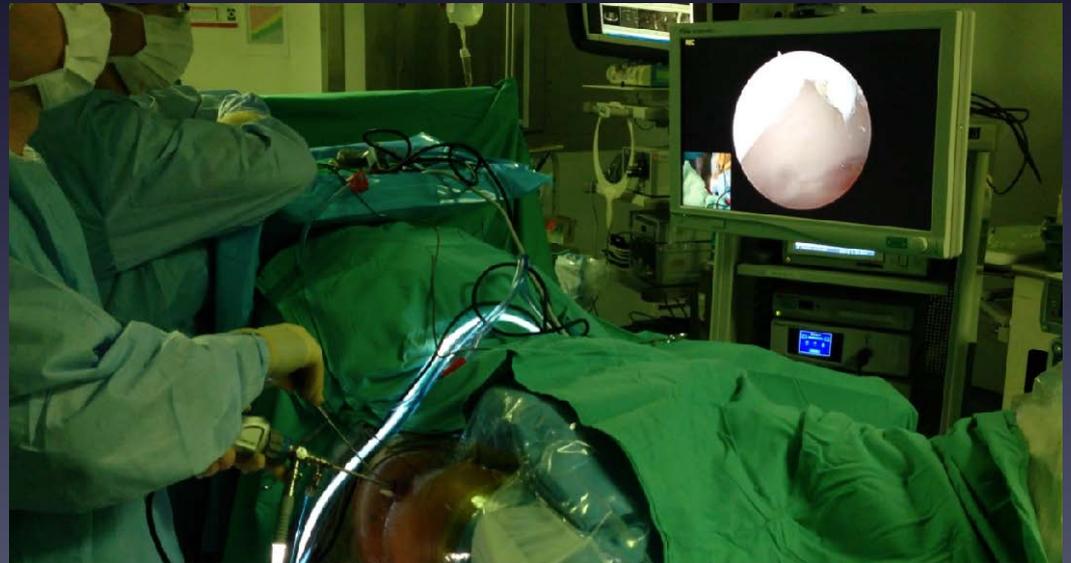
Introduction



- Femoroacetabular impingement is considered a precursor to chondrolabral disease and secondary hip osteoarthritis.
- Hip osteoarthritis and its precursors typically impair range of motion, and recovery of motion after open surgical hip dislocation for femoroacetabular impingement may be limited.
- The purpose of this study is to examine the progression of clinical motion impairments immediately, 1 month, and 4 months post hip arthroscopy for femoroacetabular impingement.

Hypothesis

- Our hypothesis is that range of motion will have a positive short term improvement after arthroscopic surgery for femoroacetabular impingement.



Methods

- Operative reports and medical records of 600 consecutive patients who had first time hip arthroscopy performed by a single orthopedic surgeon were reviewed.
- Hip impairment measures were prospectively administered at four time points pre-operatively, intra-operatively after surgical treatment, and at 1 month and 4 months post-operatively.

Statistics

- The mean and 95% confidence interval were calculated for all measures for each of the four time points.
- Statistical analysis comprised a paired samples t- to characterize the relative change among the measures at each corresponding assessment point.
- Three change scores were created for each measure, by taking the difference between the preoperative assessment values and the intra-operative, first and second postoperative assessment values.
- Significance was determined at $p < 0.05$.



Results

Pre-Operative vs. Intra-Operative

| | Pre-Operative | Immediately Post-Operative | P-Value |
|------------------------|----------------------|---------------------------------------|----------------|
| Mean Flexion Values | 98.1° (14.4) | 107.1° (8.4) | <0.001 |
| Mean Internal Rotation | 13.4° (12.0) | 23.3° (11.9) | <0.001 |
| Mean FABER distance | 24.1cm (8.9) | 16.7cm (7.4) | <0.001 |

Hip flexion, internal rotation, and FABER measurements all improved significantly over the first assessment period (pre-op to intra-operatively).



Results

1 month vs. 4 months Post-Operative

| | 1 Month | 4 Months | P-Value |
|------------------------|----------------|-----------------|----------------|
| Mean Flexion Values | 104.8° (8.0) | 110.0° (10.3) | <0.001 |
| Mean Internal Rotation | 20.9° (9.2) | 22.7° (11.3) | <0.001 |
| Mean FABER distance | 24.8cm (8.2) | 16.7cm (7.5) | <0.001 |

All measures again showed significant improvements from 1 month post-operatively to 4 months post-operatively.

Conclusions

- Our data from a large surgical database supports our hypothesis of short term improvement in hip range of motion and FABER distance after hip arthroscopy for femoroacetabular impingement.
- These improvements in hip range of motion and FABER measures were seen in patients both intra-operatively immediately after surgical treatment and four months post-operative arthroscopic surgery.

Thank You!



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