Hip Arthroscopy For Bilateral Femoroacetabular Impingement In Competitive Athletes

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Introduction

Femoroacetabular impingement (FAI) has been recognized as a cause of hip pain in athletes. Arthroscopic treatment for unilateral FAI has been proved very successful; yet there are no other reports on the clinical outcomes of bilateral symptomatic FAI in athletes.
Materials and methods

154 hips (n= 77 patients) were treated arthroscopically for bilateral FAI and any associated chondrolabral damage.

We selected the competitive athletes from mixed levels and varied sports out of this cohort.

All athletes completed pre and postoperatively MHHS, Sports Score-HOOS, VAS and patient satisfaction questionnaire scoring systems.

Mean follow-up 30 months.
Standard work up

- Clinical examination
- X-rays: AP true pelvis & cross table lateral views; assessment for FAI, dysplasia
- MRI arthrogram with intra-articular local anaesthetic
Results

- 52 hips (26 athletes); 24 males and 2 females
- 12 professional, six high-level and eight recreational athletes
- Median age at the time of surgery 27.1 years (IQR: 14.8, range: 15.1-54)
- The interval between the two arthroscopies ranged between 2 and 26 months (median 5.5 months)
FAI: mixed-type 34 hips (65.4%)
  isolated cam-type 9 hips (17.3%)
  pincer-type 9 hips (17.3%)
Labral repair (n=46 hips, 88.5%);
  Selective labral debridement (6 hips, 11.5%)
Return to full competitive activity when symptoms-free
Average return to play 12 weeks (IQR:12-16, range: 5.5-26) after the 2nd hip arthroscopy
Follow-up mean time 30 months (13 to 59):

23 athletes (88.5%) are still competing at their pre-injury level of sports.

2 professional athletes are rehabilitating because of spinal operations and 1 recreational elected to compete at a lower level because of his age.
Statistical analysis

- Average VAS from 7 preop to 0.5 postoperatively (SD= 0.9)
- Mean MHHS from 64 preop to 97.5 postoperatively (SD= 6.1)
- Mean Sports score-HOOS from 53.5 preop to 96.5 postoperatively (SD= 10)
- Average patient’s satisfaction 9 (SD= 1.8)
A highly significant improvement after the 2\textsuperscript{nd} operation with a mean change in:

- VAS (post - preoperatively) -6.12 (p = 6.3 \times 10^{-12} for testing against zero change)
- MHHS mean change 30.62 (p = 1.6 \times 10^{-10})
- Sports score-HOOS 39.38 (p = 2.3 \times 10^{-7})

The pairwise correlations using change data:
- between VAS and MHHS: -0.66, MHHS and Sports score-HOOS: 0.69 and VAS and Sports score-HOOS: -0.5
Conclusion

This study demonstrates good outcomes and a prompt return of athletes at their previous level of competition following sequential bilateral arthroscopic treatment of FAI and associated intra-articular pathology in a mixed group of athletes of varied sports.
References


Haviv H, O'Donnell J. Arthroscopic Treatment for Symptomatic Bilateral Cam-type Femoroacetabular Impingement. Orthopedics 2010;33:874

