Clinical Outcomes For Hip Arthroscopy Performed On Patients With Pre-Operative Radiologically Established Osteoarthritis

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Disclosures

- Jon Conroy
  - I have financial relationships with the following companies:
    - Consulting: Stryker, Conmed, Surgical Innovations
    - Royalties: Invibio

- Colin Holton - None
Introduction

- Recent literature reveals Hip arthroscopy in patient with established OA derive moderate to large benefit following hip arthroscopy (Kemp JL 2014 CORR).

- Greater improvement post surgery for patients with no OA, when compared to patients with OA pre-operatively (Eggertonon & Philipon).

- Other studies reveal worse outcome in patients with OA & FAI following hip arthroscopy (Kemp JL 2012 Br J Sports Med)

- No clear consensus in current literature as to whether to operate or not on pre-operative established osteoarthritic patients
Aims

- To investigate the potential benefit of hip arthroscopy in patients who have established articular damage with femoral acetabular impingement on pre-operative magnetic resonance imaging (MRI).
Methods

- A prospectively collected database of over 200 hip arthroscopies performed over a 3 year period by a single surgeon in a district general hospital in the United Kingdom.

- Modified Harris Hip score (MHHS), Non-arthritic Hip score (NAHS), SF-36 and UCLA score where performed at the following intervals; pre-operatively, 6 weeks, 3 months, 6 months, 1 year and 2 years.

- All patients underwent pre-operative MRI arthograms.

- Patients with no radiological pre-operative osteoarthritis were compared to those with radiological established pre-operative osteoarthritic changes.
Results

- Study group demographics (Group 1 – OA on pre-op MRI arthogram vs Group 2 – No OA on pre-op MRI arthogram)

<table>
<thead>
<tr>
<th></th>
<th>Group 1</th>
<th>Group 2</th>
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</thead>
<tbody>
<tr>
<td>Total number of patients</td>
<td>68</td>
<td>143</td>
</tr>
<tr>
<td>Average Age (years)</td>
<td>34.4</td>
<td>35.6</td>
</tr>
<tr>
<td>Average Follow-up (months)</td>
<td>19.4</td>
<td>17.9</td>
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<tr>
<td>Male:Female ratio</td>
<td>1:2.5</td>
<td>1:2.4</td>
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</tbody>
</table>
Results

Patients with OA on X-ray against those without OA on X-ray
Results

- Improvement in post-operative scoring methods was noted at all time periods post-operatively in the non-arthritic and arthritic groups.

- The most significant improvement was noted in the non-arthritic groups MHHS score post operatively.

- NAHS score improved by a greater margin in the arthritic group compared to the non-arthritic hip group at 2 year follow-up.
Discussion

- Hip arthroscopy for FAI in patient who are under the age of 50 and have already established articular damage on MRI provides a good clinical outcome in the short term.

- Drawbacks
  - We have not reviewed out outcomes with regards to THR as final outcome as we do not have long-term outcome data
  - We did not measure the pre-op duration of symptoms compared to outcome results
  - We did not account for different surgical procedures performed at time of hip arthroscopy
Conclusions

- Regardless of surgical procedure at Hip Arthroscopy patients with established radiological OA pre-operatively had similar improvement in short-term patient outcome results compared with a control group (no OA on pre-op radiographic imaging).
References