The Prevalence of Os Acetabuli in Sports

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Introduction

Acetabular rim ossicles known as os acetabuli

Are unfused secondary centres of ossification or fatigue fractures caused by overload
Introduction

Competitive athletes subject their hips to a significant amount of stress and therefore make them more prone to hip injuries.
Purpose

Assess the presence of os acetabuli in athletes undergoing hip arthroscopy

Report its prevalence in different type of sports
Materials and Methods

- Mixed group of competitive athletes
- Hip arthroscopy for symptomatic FAI
- Level and type of sports recorded
- Sports categorised according to movement: predictable-unpredictable
Materials and Methods

- Clinical examination
- Radiographic features
- Operative findings
- Return to sports
Results

- 378 competitive athletes treated for FAI
- 139 (36.7%) in sports with predictable movements
- 239 (63.2%) in sports with unpredictable movements
- 30 athletes diagnosed with os acetabuli in imaging modalities
Results
Sports with predictable movements

<table>
<thead>
<tr>
<th>Sports</th>
<th>Nr athletes</th>
<th>Nr os acetabuli</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Golf</td>
<td>34 (24.4%)</td>
<td>1</td>
<td>2.9%</td>
</tr>
<tr>
<td>Cycling</td>
<td>64 (46%)</td>
<td>2</td>
<td>3.1%</td>
</tr>
<tr>
<td>Dressage</td>
<td>13 (9.3%)</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td>Ballet</td>
<td>28 (20.14%)</td>
<td>-</td>
<td>0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3 athletes</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Results

Sports with unpredictable movements

<table>
<thead>
<tr>
<th>Sports</th>
<th>Nr athletes</th>
<th>Nr os acetabuli</th>
<th>Prevalence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soccer</td>
<td>177 (74%)</td>
<td>21</td>
<td>11.8%</td>
</tr>
<tr>
<td>Rugby</td>
<td>42 (17.5%)</td>
<td>5</td>
<td>11.5%</td>
</tr>
<tr>
<td>Cricket</td>
<td>20 (8.3%)</td>
<td>1</td>
<td>5%</td>
</tr>
</tbody>
</table>

**Total** 27 athletes
Conclusion

This study demonstrates a higher prevalence of os acetabuli in sports with unpredictable movements such as soccer, rugby and cricket compared to those with predictable movements such as golf, dressage and ballet.
References


Larson CM, Stone RM. The rarely encountered rim fracture that contributes to both femoroacetabular impingement and hip stability: a report of 2 cases of arthroscopic partial excision and internal fixation. Arthroscopy 2011;27(7):1018-22