Outcomes In Professional Golfers Following Hip Arthroscopy

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Statement of Problem

- Golf is a noncontact sport that can be played at almost any age or skill level.
- Hip injuries such as those involving the acetabular labrum and capsule can cause rotational instability and pain, limiting the ability to play at a professional level.
Introduction

• The golf swing is a complex and multi-dimensional movement requiring the coordinated effort of several muscle groups to generate power
  – Hip muscles, particularly the extensors and abductors, have a critical role initiating the forward swing phase which creates the energy transferred to the ball at impact

• Crawford et al.
  – Over time, the repetitive twisting and pivoting required by the golf swing can damage and destabilize the hip joint
Role of Hip Arthroscopy

- Philippon et al.
  - Hip injuries recognized as a source of pain and decreased performance among professional golfers
    - Injuries include acetabular labral tears, capsular laxity, and acetabular or femoral cartilage defects
  - Hip arthroscopy proven to allow return to competitive play in elite level athletes
  - Among 45 professional athletes, 42 (93%), and specifically 6 (100%) returned to professional competition following arthroscopy for FAI

Philippon, Knee Surg Sport Trauma, 2007
Hypothesis

• Arthroscopic surgical intervention for the treatment of intra-articular hip pathology will allow a golfer to return to the same level of play as before their hip injury
Methods/Study Design

• Retrospective review of professional golfers who underwent hip arthroscopy because of activity limiting pain
  – Surgeries reviewed from 2000 – 2009
  – Single surgeon (MJP)

• Surgical procedures performed
  – Femoral neck osteoplasty
  – Chondroplasty
  – Acetabular rim trimming
  – Labral debridement
  – Labral repair
Methods/Study Design

• Golf performance data analyzed
  – Greens in regulation
  – Average driving distance

• Averages were recorded for the two years prior to surgery as well as the first two complete seasons following surgery
  – Databases at pgatour.com and databasegolf.com were utilized for golf data
Results

- 14 golfers with 20 hip arthroscopies included
  - All of the patients were male
  - 20% (4/20) of surgeries analyzed were revisions
  - One golfer required revision surgery twice
- Age at surgery:
  - 38 years (range: 27 – 51 years)
- Every hip was treated with capsular plication for redundant capsule and laxity
## Results

<table>
<thead>
<tr>
<th></th>
<th>Pre-injury</th>
<th>Std. Dev.</th>
<th>Post-surgery</th>
<th>Std. Dev.</th>
<th>Change</th>
<th>T-test</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average Greens in Regulation Percentage (%)</td>
<td>64.0</td>
<td>2.1</td>
<td>63.1</td>
<td>6.0</td>
<td>-0.8</td>
<td>.71</td>
</tr>
<tr>
<td>Average drive distance (yards)</td>
<td>277.5</td>
<td>8.8</td>
<td>287.2</td>
<td>7.5</td>
<td>10.2</td>
<td>&lt;0.001</td>
</tr>
</tbody>
</table>
Results

• 6 of 14 golfers showed improvement in greens in regulation
• Only one golfer had a decrease in average drive distance
• Overall, average drive distance increased by 10 yards following arthroscopy
Conclusions/Clinical Relevance

• Arthroscopic treatment of intra-articular hip pathology in golfers allowed for return to play at the same level prior to surgery

• Average drive found to improve by 10 yards in professional golfers post operatively
References


