Iliopsoas pathology, treatment, and outcomes in patients undergoing hip arthroscopy for femoroacetabular impingement

D. MATSUDA 1, B. KIVLAN 2, S. NHO 3, A. WOLFF 4, J. SALVO 5, J. CHRISTOFORETTI 6, T. ELLIS 7, D CARREIRA 8

1 DISC Sports and Spine Center, Marina del Rey, CA; 2 Duquesne University, Pittsburgh, PA; 3 Rush University Medical Center, Chicago, IL; 4 Washington Orthopaedics and Sports Medicine, Washington D.C.; 5 Rothman Orthopedic Institute, Marlton, NJ; 6 Texas Health Sports Medicine, Allen, TX; 7 Orthopedic One, Dublin, OH; 8 Peachtree Orthopedics, Atlanta, GA
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Introduction

- Iliopsoas tenotomy has been used to treat internal snapping hip and psoas impingement.
- Recent studies have reported residual flexor weakness and/or anterior instability following iliopsoas tenotomy\(^1\)\(^-\)\(^3\).

Aim:

To report the prevalence, associated findings, rendered arthroscopic surgical procedures, and outcomes of hips with iliopsoas-related pathology.

We hypothesized the incidence of iliopsoas tenotomy in the presence of iliopsoas-related pathology to be lower than historical incidence.
Method

- Inclusion criteria: enrolled patients that underwent isolated hip arthroscopy that reached 2-year minimum follow-up with PROs (iHOT-12, VAS for pain)
- Stratification: Iliopsoas group defined as pre-operative diagnosis of iliopsoas tendonitis, internal snapping hip symptoms, history of psoas injection, and/or intra-operative anteroinferior labral bruising or tear (at generic 3 O’clock position). Compared with control group.
- The prevalence of iliopsoas-related pathology, radiographic and intra-operative findings, and rendered procedures between study and control groups were compared using Chi square analysis.
- Minimum 2-year outcomes were compared using analysis of variance (a priori alpha set at 0.05).
Method

N = 629

Stratify by iliopsoas pathology

Control group

Iliopsoas group

Minimum 2 year i-HOT 12
## Results

<table>
<thead>
<tr>
<th></th>
<th>Control Group</th>
<th>Iliopsoas pathology</th>
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</thead>
<tbody>
<tr>
<td>N (%)</td>
<td>560 (89%)</td>
<td>69 (11%)</td>
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<tr>
<td>Incidence of focal impingement</td>
<td>22%</td>
<td>37%</td>
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<tr>
<td>Post-operative Pain Vas scores (mean ± SD)</td>
<td>20.2 ±22</td>
<td>21.9 ± 23</td>
</tr>
<tr>
<td>Post-operative iHOT-12 scores (mean ± SD)</td>
<td>73.0 ± 25.1</td>
<td>70.2 ±26.7</td>
</tr>
</tbody>
</table>
Results

- 629 patients met the inclusion criteria of which 69 patients (11%) comprised the iliopsoas group and 560 patients (89%), the control group.
- Iliopsoas tenotomy was performed in 5 patients (7% of the iliopsoas group, 0.8% of the total patients undergoing hip arthroscopy), all via the transcapsular approach.
- Demographics did not differ between groups (p>0.05).
- There was no significant difference in the prevalence of cam deformity, global pincer deformity, or dysplasia between cohorts but there was a lower incidence of focal pincer impingement among patients with iliopsoas involvement (22 % vs 37%, p=0.001).
- Post-operative iHOT-12 scores similarly improved to 70.2 (SD: 26.7) for the iliopsoas group and 73.0 (SD: 25.1) for the control group (p=0.68).
- Post-operative pain scores similarly reduced to 21.9 (SD 23.0) for the iliopsoas group and 20.2 (SD: 22) for the control group (p=0.74).
No significant difference in iHOT12 scores or in Pain VAS scores were observed between patients with iliopsoas pathology and patients without.
The most significant finding from this large multicenter study is the extremely low incidence of arthroscopic iliopsoas tenotomies (2.7%) despite the not uncommon prevalence of iliopsoas-related pathology.

The incidence of iliopsoas tenotomy (2.7%) has significantly decreased in patients undergoing hip arthroscopy and the presence of iliopsoas-related pathology even untreated with tenotomy is not a predictor of poorer outcomes.
