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Arthroscopic Partial Meniscectomy versus Nonoperative Therapy in the Treatment of Degenerative Meniscus Tears

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INTRODUCTION

Arthroscopic partial meniscectomy (APM) is the most commonly performed orthopedic procedure in the United States. Currently, APMs are offered to patients with a degenerative meniscus tear experiencing knee pain with mechanical symptoms. Significant variation exists among surgeons regarding the decision to perform APM. Currently, there is no consensus on an evidence-based treatment of choice; practitioners continue to question whether operative or nonoperative treatment yields better short- and long-term results, particularly for those aged 30 and over and those with baseline evidence of osteoarthritis. The goal of this study is to compile evidence and determine the efficacy of the traditional treatment (APM) and compare it with nonoperative therapy.

Tegner Lysholm Knee Scoring Tool

A patient reported qualitative, condition-specific, scoring questionnaire that assesses both pain and activity levels. Lower scores indicate more severe symptoms.

Western Ontario Meniscal Evaluation Tool (WOMET)

An 11-item, patient-reported, condition-specific, scoring questionnaire used to evaluate meniscal pathology based on pain, stiffness, and physical functioning of the joints. Higher scores indicate more severe symptoms.

Clinical Question: Does arthroscopic partial meniscectomy provide long term pain relief to those with degenerative meniscus tears >35 y/o?

RESULTS

Table 1. Cumulative Study Data: Overview

<table>
<thead>
<tr>
<th>Study</th>
<th>Year</th>
<th>Country</th>
<th>Design</th>
<th>Mean age, year</th>
<th>Male sex %</th>
<th>Conservative</th>
<th>Surgical</th>
<th>OA Inclusion</th>
<th>Loss to follow up</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yim et al</td>
<td>2013</td>
<td>South Korea</td>
<td>Multicenter, randomized control trial</td>
<td>56</td>
<td>21</td>
<td>52</td>
<td>6</td>
<td>1</td>
<td>6</td>
<td>161</td>
</tr>
<tr>
<td>Katz et al</td>
<td>2013</td>
<td>United States</td>
<td>Multicenter, randomized control trial</td>
<td>58</td>
<td>43</td>
<td>61</td>
<td>70</td>
<td>2</td>
<td>2, 12 months</td>
<td>161</td>
</tr>
<tr>
<td>Silvonen et al</td>
<td>2013</td>
<td>Finland</td>
<td>Multicenter, randomized, double-blind, sham-controlled study</td>
<td>52</td>
<td>61</td>
<td>1</td>
<td>1.8</td>
<td>0</td>
<td>0</td>
<td>161</td>
</tr>
</tbody>
</table>

NSAIDS = Nonsteroidal anti-inflammatory drugs; KOOS = Knee injury and osteoarthritis outcome score; VAS = Visual analogue scale; WOMAC = Western Ontario and McMaster Universities Osteoarthritis Index.

RESULTS, cont.

Figure 2. Lysholm Knee Score Comparison Yim et al. vs. Silvonen et al.

CONCLUSION

A well-adhered-to physical therapy regimen is shown to be an effective treatment option for middle aged adults with non-traumatic, degenerative meniscal tears. At 12 months post-treatment, there is no significant benefit to undergoing APM compared to physical therapy alone in relation to patient satisfaction, functional status of the knee, and pain. Since the research suggests structured physical therapy provides similar outcomes and fewer risks than the now commonly performed APM, a standardized physical therapy regimen should be first line treatment.

ACKNOWLEDGEMENTS

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REFERENCES