Clinical Scenario:

1. Camanho G, Viegas A, Bitar A, Demang MK, et al. Conservative versus surgical treatment with physical therapy versus conservative treatment on re-dislocation rate? Search Strategy: Inclusion criteria consisted of the injury needing to be an acute primary patellar dislocation, no previous history of knee surgeries on the effected knee and a positive apprehension test. Exclusion criteria was history of chronic patellar instability, previous surgeries on the effected knee, or a history of a major lesion on the effected side. Databases used were PubMed, Cochrane summaries, CINAHL complete, and ProQuest Nursing Collection. Search terms used were patellar dislocation treatment, Patelar dislocation, surgical treatment, conservative treatment, operative treatment, non-operative treatment. Nine articles were selected after the search was complete. Evidence Quality Assessment: All studies received either a 6/10 or a 7/10 on the PEDro scale. The studies were rated a level 2 or level 3 on the 2011 Oxford Centre for Evidence-Based Medicine levels of evidence scale. Results and Summary of Search: The studies show that there were no significant differences between the surgical and conservative treatments in re-dislocation rate. Although conservative treatment was found to be a viable treatment choice, surgical reconstruction and repair of the medial structures showed to have better results. The results showed that re-dislocation with surgery ranged between 0% to 67% while conservative treatment showed re-dislocation rates between 4% to 75%. Strengths of the studies are the having very similar physical therapy regimens and similar surgical procedures. Weakness in these studies are that there is a wide range of ages between the patients which other factors such as anatomical factors may play a role in weakness of stabilization. With younger populations ligaments and muscles have not fully developed leading to weakened stabilization. With older population, ligaments and muscles may become weaker as people begin to slow down in life and become less active. Clinical Bottom Line: 5 of the 9 studies found no significant differences between the two treatments in regards to re-dislocation rate. This study received a SORT score of B. Implications: Athletic trainers commonly work with acute injuries, they may encounter acute patellar dislocations throughout their careers. They will need to be able to recognize the injury then determine whether surgery or conservative treatment will lead to the lowest re-dislocation rate for the patient. Having the knowledge of which treatment is will have better results for re-dislocation rates will enable the athletic trainer to know when to refer the patient for follow-up with an orthopedic surgeon. Word Count: 446

Results and Summary of Search, Cont.


Table 1. Comparison of re-dislocation rates between surgical treatment and conservative treatment.

<table>
<thead>
<tr>
<th>Author/Study</th>
<th>Surgical Re-dislocation Rate</th>
<th>Conservative Re-dislocation Rate</th>
<th>P-value</th>
<th>Time of Last FU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Apostolovic M, et al</td>
<td>71% (20/28)</td>
<td>67% (24/36)</td>
<td>p &gt; 0.05</td>
<td>14 years</td>
</tr>
<tr>
<td>Buchner M, et al</td>
<td>29% (17/63)</td>
<td>26% (10/37)</td>
<td>p &gt; 0.05</td>
<td>8.1 years</td>
</tr>
<tr>
<td>Campo G, H, et al</td>
<td>50% (8/16)</td>
<td>0% (0/17)</td>
<td>p &gt; 0.05</td>
<td>25% months</td>
</tr>
<tr>
<td>Mostrom EB, et al</td>
<td>7% (22/33)</td>
<td>43% (3/7)</td>
<td>p &lt; 0.05</td>
<td>7.35 years</td>
</tr>
</tbody>
</table>

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<tr>
<th>Author/Study</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Lee H, et al</td>
<td>33% (9/27)</td>
<td>0% (0/11)</td>
<td>p = 0.07</td>
<td>1 year</td>
</tr>
<tr>
<td>Petri M, et al</td>
<td>37.5% (3/8)</td>
<td>16.7% (2/12)</td>
<td>p = 0.347</td>
<td>2 years</td>
</tr>
<tr>
<td>Regalado G, et al</td>
<td>78% (11/15)</td>
<td>33% (5/15)</td>
<td>p = 0.02</td>
<td>6 years</td>
</tr>
<tr>
<td>Sillanpaa P, et al</td>
<td>29% (6/21)</td>
<td>0% (0/17)</td>
<td>p = 0.02</td>
<td>7 years</td>
</tr>
</tbody>
</table>

References:


Clinical Bottom Line:

• 5 of 9 studies showed no significant differences between surgical and conservative treatment in re-dislocation outcomes.
• 4 of the 9 studies favored surgical treatment in regards to re-dislocations.
• One study stated finding a tendency of better results towards surgical treatment but it was not a significant finding.
• This study received a SORT score of B.

Implications:

• Athletic trainers work with acute injuries, such as patellar dislocations, so it is likely that they will need to treat patellar dislocations.
• They need to recognize patellar dislocations and know which treatment will lead to the optimal outcomes for the patients.
• Having the knowledge of which treatment is will have better results for re-dislocation rates will enable the athletic trainer to know when to refer the patient for follow-up with an orthopedic surgeon.

Focused Clinical Question:

With patients who have sustained an acute primary patellar dislocation, what are the effects of surgical treatment with physical therapy versus conservative treatment on re-dislocation rate?