Reviewer's report

Title: High-intensity mechanical therapy for loss of knee extension for worker's compensation and non-compensation patients

Version: 2 Date: 10 June 2010

Reviewer number: 3

Reviewer's report:

Major Revisions

1) Passive extension without identifying how much overpressure is applied can be variable. Authors should quantify overpressure.

2) Improvement in Passive extension if not supplemented with active extension and improved quadriceps strength does lead to improved function. Authors should at very least add a section regarding this and comment on gait and function improvement.

3) It is not clear if Physical Therapy continued during the High Intensity Mechanical Therapy. It is important for readers to know this since majority of functional improvement comes from continued Physical Therapy through active exercises and improvement in strength.

4) It is not clear if diagnosis criteria were similar in non-compensation and workman compensation patients. It is much better to present all patients individually in a Table form as shown below then the reader will be able get more information.

<table>
<thead>
<tr>
<th>Patient ID</th>
<th>Diagnosis</th>
<th>Compensation</th>
<th>Time to HIS</th>
<th>Time in HIS</th>
<th>Pre Knee extension</th>
<th>Post Knee extension</th>
<th>Final Extension</th>
<th>Pre Gait</th>
<th>Post Gait</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>TKA no</td>
<td>2 mnths</td>
<td>7 wks</td>
<td>-10</td>
<td>0</td>
<td>0</td>
<td>Mod Limp</td>
<td>No limp</td>
<td></td>
</tr>
</tbody>
</table>

5) Manuscript is not clear about this but I presume standard Goniometer was employed to measure passive knee extension. If so was some one else applying passive tension as the other author was measuring or all the measurements were performed in HIS device.

6) The device that authors used is a non hinged device and in a unstable knee it can cause posterior subluxation of the proximal tibia over distal femur. In many cases this seems like improved knee extension clinically but is not. Did authors review patients x rays?

Minor Revisions

1) Since the groups of compensation and non compensation are not homogeneous, direct comparisons between the groups for outcome should not be made.
2) Identify type of TKA and ACL reconstruction performed.

3) What is multiple ligament reconstruction, Identify ligaments reconstructed.

4) Did the patients with Osteoarthritis have long lasting result?

5) It would be helpful to the reader if results are broken down by etiology and identify failure of HIS device and give reasons why it failed in those cases.

**Level of interest:** An article of importance in its field

**Quality of written English:** Acceptable

**Statistical review:** Yes, but I do not feel adequately qualified to assess the statistics.