Proprioceptive Neuromuscular Facilitation In A Male Wrestler Post Type II Slap Lesion Surgical Repair

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PURPOSE

A Type II SLAP lesion is described as degenerative fraying in conjunction with a detached superior labrum and biceps from the glenoid causing an unstable labral-biceps anchor. The mechanism of injury for these types of lesions may vary from isolated trauma of the shoulder to repetitive microtraumas in overuse. Traditionally following surgical repair of a Type II SLAP lesion, patients are recommended for physical therapy to help facilitate improved functional outcomes.

The primary purpose of this case report was to assess the effects of a specific progression of PNF and Rhythmic Stabilization Exercises (RSE) in conjunction with traditional physical therapy for a seventeen-year-old wrestler post Type II SLAP lesion surgical repair.

CASE DISCRIPTION

Phase 1 (weeks 1-6): Gentle therapeutic exercises

Phase 2 (weeks 7-13): Full ROM

Phase 3 (weeks 14-19): Advanced Strengthening

Phase 4 (weeks 20-24): Return to Sport

PNF and RSE program highlights

Phase 1

Week 6: gentle RSE in supine with shoulder in elevation: 3 sets x 30 seconds

Phase 2

Week 10: PNF with patient supine resisting D1 and D2 pattern: 3 sets x 30 seconds

Phase 3

Week 15: single arm plank on elbow in sidelying with perturbations on unstable surface: 3 sets x 30 seconds

RESULTS

Test and Measures: Initial Examination Week 7 Week 14 Week 24

<table>
<thead>
<tr>
<th></th>
<th>Shoulder Flexion</th>
<th>Shoulder Abduction</th>
<th>Shoulder External Rotation with pain</th>
<th>Shoulder Internal Rotation</th>
<th>Shoulder Extension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Active Range of Motion (AROM)</td>
<td>Not tested</td>
<td>Not tested</td>
<td>Not tested</td>
<td>Not tested</td>
<td>Not tested</td>
</tr>
<tr>
<td></td>
<td>155 degrees</td>
<td>150 degrees</td>
<td>60 degrees with pain</td>
<td>75 degrees</td>
<td>45 degrees</td>
</tr>
<tr>
<td></td>
<td>180 degrees</td>
<td>180 degrees</td>
<td>85 degrees with pain</td>
<td>90 degrees</td>
<td>60 degrees</td>
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<tr>
<td></td>
<td>180 degrees</td>
<td>180 degrees</td>
<td>90 degrees</td>
<td>90 degrees</td>
<td>60 degrees</td>
</tr>
</tbody>
</table>

Visual Analog Scale (VAS)

- At Rest: 5/10, 3/10, 2/10, 0/10
- Manual Muscle Tests:
  - Shoulder flexion: 3+/5, 5/5, 5/5
  - Shoulder abduction: 3+/5, 4+/5, 5/5
  - Shoulder external rotation: 3/5, 4/5, 5/5
  - Shoulder internal rotation: 3/5, 4/5, 5/5

Functional Self Report

- Upper Extremity Functional Index: 4/80, 27/80, 70/80, 75/80

CLINICAL RELAVANCE

This case report indicated that the utilization of PNF and RSE is a beneficial component to physical therapy treatment of a seventeen-year-old wrestling athlete with a Type II SLAP lesion surgical repair. Designing a treatment plan with emphasis on PNF and RSE is cost efficient, as it does not require expensive equipment or additional certifications. Also, physical therapists utilizing PNF and RSE could further control the safety of therapeutic interventions by providing manually controlled resistance and perturbations.

REFERENCES

George Eskander, SPT and Matthew Daugherty, PT, DPT, OCS, MTC, FAAOMPT