High Velocity, Low Amplitude Thoracic Spine Thrust Mobilization Intervention for a Primary Thoracic Spine Injury: A Case Report
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BACKGROUND
Current literature on thoracic spine mobilizations largely focuses on high velocity, low amplitude thrust mobilizations as an intervention for cervical spine and/or shoulder dysfunction. There is a lack of clinical research on this type of intervention implementation for a primary presentation of thoracic spine symptoms.

PURPOSE
The purpose of this case report is to present a successful episode of physical therapy utilizing high velocity, low amplitude thoracic spine thrust mobilizations as the primary intervention for reducing thoracic spine pain and stiffness.

PATIENT DESCRIPTION
- 19 year old male weightlifter
- 1st episode of thoracic spine symptoms
- Chief complaint:
  - intermittent, sharp mid-thoracic spine pain and stiffness after overhead lifting activities
- PMH: L5 vertebral fracture in 2013
- Primary Personal Goal:
  - return to weightlifting routine safely and without pain

INTERVENTIONS
- high velocity, low amplitude thoracic spine thrust mobilizations
- muscle energy technique
- correction of body form in high load overhead strengthening exercises
- dural mobility, muscle flexibility, and strengthening HEP prescription
- 1x/week totaling 5 physical therapy visits

RESULTS

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<thead>
<tr>
<th></th>
<th>Visit 1</th>
<th>Visit 2</th>
<th>Visit 3</th>
<th>Visit 4</th>
<th>Visit 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pain</td>
<td>3→2/10</td>
<td>2→1/10</td>
<td>1→0-1/10</td>
<td>1→0-1/10</td>
<td>0→0/10</td>
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</tr>
<tr>
<td>L Side Bend</td>
<td>Pain at 50%</td>
<td>No pain at 100%</td>
<td></td>
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<tr>
<td>R Side Bend</td>
<td>Pain at 25%</td>
<td>No pain at 100%</td>
<td></td>
<td></td>
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<tr>
<td>L Rotation</td>
<td>+ at 45°</td>
<td>No pain at 100%</td>
<td>Pain at 100%</td>
<td>+ at 20°</td>
<td>+ at 15°</td>
</tr>
<tr>
<td>R Rotation</td>
<td>+ at 45°</td>
<td>Pain at 75%</td>
<td>+ at 15°</td>
<td>+ at 15°</td>
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</tr>
</tbody>
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Normal Thoracic ROM
- Flexion 40°
- Extension 30°
- Side bending 30°
- Rotation 20°

DISCUSSION POINTS
- Consistent thrust mobilization intervention administered despite positional and side variation of comparable sign. Treatment effect achieved.
  - few studies provide evidence that back pain fluctuations are not uncommon
- Dural mobility was included to assess effectiveness of spinal mobilization
- Self-discharge after visit 5 considered a successful episode of rehabilitation

CONCLUSION
- Thoracic spine thrust mobilization intervention effectively rehabilitated this patient to achieve his goal
- This intervention can be considered for individuals with similar primary thoracic spine symptom presentation
- More clinical reports are needed to continue to fill the gap in literature for use of effective thrust mobilization in thoracic spine presentations

REFERENCES

METHODOLOGY and OUTCOMES MEASURES
Focus On Therapeutic Outcomes (FOTO) used for recording and reporting objective data
Test-Retest model used to assess pre- and post-intervention changes