Postoperative Management and Core Stabilization Interventions for a Semi-pro Football Athlete Following Lumbar Discectomy: A Case Report
I Iaea, BS
University of New England, Portland, Maine

Background
- Many cases of low back pain (LBP) are idiopathic in nature, however, LBP in result of a herniated intervertebral disc exerting pressure on the nerve root may require lumbar discectomy to relieve sciatica and radiating pain.
- Although there is evidence to support successful return to work in the general population and return to sports in professional athletes, less is known regarding the interventions that played a role in their return.

Purpose
- The purpose of this case report is to describe the physical therapy management and core stabilization interventions for a semi-pro football athlete following lumbar discectomy who sustained a herniated disc during recreational exercise and football.

Interventions
- Phase 1 (Neuromuscular re-education and motor control during bed exercises)
- Phase 2 (Gross body movements and use of equipment)
- Phase 3 (Dynamic and football related drills)

Exercise progression based on symptoms of pain and proper demonstration and technique.
- Manual therapy included soft tissue massage, joint mobilization, and strain-counterstrain to improve mobility and decrease pain.

Outcomes

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Initial Evaluation</th>
<th>Discharge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manual Muscle Test</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hip Flexion</td>
<td>4+/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Hip Extension</td>
<td>4+/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Hip Adduction</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Knee Flexion</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Knee Extension</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Ankle dorsiflexion</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Toe Extension</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Eversion</td>
<td>5/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Abdominals (upper)</td>
<td>4/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Abdominals (lower)</td>
<td>4/5</td>
<td>5/5</td>
</tr>
<tr>
<td>Lumbar multifidus (LM)</td>
<td>4/5</td>
<td>5/5</td>
</tr>
</tbody>
</table>

Range of Motion
- Lumbar Flexion
- Lumbar Extension
- Right Side Bend
- Left Side Bend
- Hamstring Muscle

Sensation
- In tact with crude and light touch.
- No changes found.

Joint Integrity / Mobilization of the Spine
- Grade 2 grossly.
- Grade 3 thoracic and cervical.

Functional Assessment
- Poor body mechanics during squat.
- Proper demonstration of squat.

Numeric Pain Rating Scale
- 6/10
- 0/10

Conclusion
- Disability and functional limitations following discectomy improved following core exercises, soft tissue mobilization, and education.
- Research is warranted to investigate the long term implications following discectomy.