Conservative Management of Lumbar Disc Herniation with Radiculopathy: A Case Report

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CONSERVATIVE MANAGEMENT OF LUMBAR DISC HERNIATION WITH RADICULOPATHY: A CASE REPORT

by

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This Scholarly Project, submitted by Mary Joyce Barthel in partial fulfillment of the requirements for the Degree of Doctor of Physical Therapy from the University of North Dakota, has been read by the Advisor and Chairperson of Physical Therapy under whom the work has been done and is hereby approved.

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Title Conservative Management of Lumbar Disc Herniation with Radiculopathy: A Case Report

Department Physical Therapy

Degree Doctor of Physical Therapy

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Date 10/5/17
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ABSTRACT

Background and Purpose: Low back pain affects millions of people annually. The most common cause of low back pain is intervertebral disc herniation and is often accompanied by radiculopathy symptoms in one or both lower extremities. Patients with disc herniation are typically prescribed conservative management prior to surgical intervention.

Case Description: The patient in this case report was a 53-year-old female diagnosed with a posterior-lateral herniation of the L5-S1 vertebral disc. Her chief complaint was pain in her low back with radiating pain into the right buttock, with occasional peripheralization of symptoms down her right lower extremity to the lateral knee and toes.

Intervention: The patient was seen in physical therapy 2 times a week for 5 weeks for conservative management. Interventions used during the episode of care included therapeutic exercise, mechanical traction, and patient education.

Outcomes: At the end of 5 weeks of treatment, the patient did not see any functional improvement and was discharged to undergo elective spinal surgery. The patient did, however, report improvement of pain symptoms following the use of mechanical traction.

Discussion: Conservative management prior to surgical intervention remains a controversial topic. The patient in this case reported satisfaction following application of mechanical traction which may suggest possible clinical benefits of this intervention for pain relief in patients with intervertebral disc pathologies. However, the length of conservative treatment such as mechanical traction and therapeutic exercise required to show successful functional recovery from disc herniation needs further research.
CHAPTER 1

BACKGROUND AND PURPOSE

Low back pain is a common musculoskeletal problem faced by many people. In 2002, the National Health Interview Survey (NHIS)\(^1\) showed that 26.4 percent of Americans surveyed reported at least one episode of back pain within the last three months. This corresponds to approximately 54 million adult Americans with low back pain each year. The origin of low back pain varies and may include: structural changes in the spine or pelvis, neurological lesions, congenital deformities, and/or systemic diseases.\(^2\)

The most common cause of low back pain in adults is intervertebral disc herniation.\(^3\) The term herniation is used to describe the displacement of disc material (nucleus pulposus and/or annulus fibrosus) beyond its natural border and into the spinal column which may result in spinal cord or nerve root compression that can manifest into neurological symptoms.\(^4\) Patients with lumbar disc herniation may experience a variety of symptoms depending on the level of lesion and severity of nerve root compression. In addition to pain in the low back, patient may experience radicular pain and numbness that travels distally into one or both lower extremities, following the distribution of the nerve root indicating neurological involvement. Patients may also exhibit motor deficits such as muscle weakness, matching the myotome pattern corresponding to the level of disc herniation. Patients diagnosed with lumbar disc herniation are often referred to physical
therapy by their primary care physicians for evaluation and trial of conservative treatment, prior to attempting more invasive treatment options.⁴

Effective treatment for low back pain remains a controversial topic among therapists. Some research suggest that non-pharmacologic therapies show effective moderate relief of symptoms for patients with low back pain. These therapies include exercise therapy, massage therapy, yoga, progressive relaxation, and spinal manipulation.⁵ Another source has shown that many conservative therapies, apart from therapeutic exercise, are not as effective as once previously thought.

In 2001, a Philadelphia Panel⁶ performed a review of many popular treatment prescriptions for patients with low back pain. The treatments they reviewed included: thermotherapy, therapeutic massage, therapeutic exercises, electromyographic biofeedback, mechanical traction, ultrasound, TENS, electrical stimulation, and combined rehabilitation interventions. They found that therapeutic exercise was beneficial for patients with chronic, subacute, and postsurgical low back pain. Continuation of normal activities was shown to be superior to bedrest. There was insufficient evidence to support the inclusion or exclusion of the other 8 therapies in the treatment of low back pain in physical therapy.

Traction is another conservative treatment approach common for patients with low back pain, especially those with herniated lumbar disc.⁷ Sari Akarirmak and colleagues⁸ evaluated structural changes to the lumbar spine during mechanical traction in patients with lumbar disc herniation. They found a 25% reduction in disc herniation as well as a 22% increase in spinal canal area and 27% widening of the vertebral foramina.
These findings suggest, as the authors hypothesized, that the decompression of the herniated disc on the spinal nerve root would provide relief of the patient's symptoms.

Theoretically, it seems traction should provide pain relief to patients suffering from lumbar disc herniation. However, there is little significant evidence to support these assumptions. Borman, et al\textsuperscript{9}, conducted a study investigating the efficacy of lumbar traction in the management of low back pain. They compared a group of patients receiving standard physical therapy with a group receiving standard physical therapy in conjunction with mechanical traction. The experiment revealed significant improvements in pain intensity and disability at the end of treatment in both groups. While both groups improved, there was no significant difference found between groups, suggesting that traction has no specific effect on physical therapy in the treatment of low back pain. Although there is little research backing the use of mechanical traction, the case under investigation shows there may be benefits to performing traction clinically, especially for pain relief.

Patients who do not respond to conservative treatment for low back pain may be candidates for surgical referral, however there is little research reporting on the appropriate amount of time needed to allow for results from conservative treatment prior to surgical intervention.\textsuperscript{5} The purpose of this report is to explore conservative treatment, including traction and therapeutic exercise measures, in a patient with low back pain caused by disc herniation.
CHAPTER 2

CASE DESCRIPTION

The patient, a 53-year-old female, was referred to outpatient physical therapy from the hospital emergency department after experiencing unbearable pain in her low back and right buttock. Magnetic resonance imaging (MRI) performed at the hospital indicated a posterior-lateral bulge of the L5-S1 vertebral disc. The initial onset of low back pain occurred after the patient scraped popcorn ceilings in her home, approximately six weeks prior to her visit in the emergency room. The patient was seen two days after her referral from the hospital.

The patient's chief complaint was pain in her low back with radiating pain into her right buttock, which was progressively getting worse. The pain occasionally radiated down her right lower extremity to her lateral knee and toes. The patient was not able to provide clear explanation on what caused this exacerbation in her symptoms. She explained that her pain was consistently 3/10 on the visual analog scale (VAS). Intense sharp pain of 10/10 in her low back and right buttock would occur intermittently, depending on her position. The patient reported no history of back pain or spinal pathology prior to this episode and was in overall good health. The patient was an office manager and often sat for prolonged (two to four hours) periods of time while talking on the phone or working at her computer. She reported that this episode of low back pain was interfering with her hobbies which include walking, gardening, and accomplishing projects around the house.
The patient’s symptoms were worse during the morning hours, especially when rising out of bed. She reported waking a minimum of six times per night due to severe pain in her low back. The patient had noticed increasing difficulty with functional activities due to increased pain in her low back and right buttock. These activities include: donning and doffing shoes and socks, vacuuming, and pressing the pedals while driving. She often required assistance from her husband to complete tasks around the house that she normally completed independently. Some of these tasks included vacuuming, carrying the laundry up/down the stairs, and loading the dishwasher. The patient’s symptoms were aggravated by prolonged sitting (30 minutes to one hour), forward bending, and lying flat on her back. Standing and walking improved her pain symptoms to a tolerable level. She often paced around the room to alleviate her symptoms. Ice provided some relieve, but only temporarily. The day before her first physical therapy visit, she received an injection of cortisone at the level of L5-S1 disc herniation when she presented to the emergency department in severe pain. The patient had not noticed any change in her symptoms as a result of the injection when she presented for her initial physical therapy evaluation. She was prescribed oxycodone and diazepam by her doctor for pain control but only took them at night, in order to transport herself to work during the day.

The patient did not report any significant medical history, symptoms, or no red flag signs to contraindicate physical therapy treatment. The patient signed an informed consent document prior to initiation of physical therapy. She was eager and excited to begin physical therapy. Her chief goal was to decrease pain and right lower extremity radiculopathy to improve her sitting tolerance and regain her functional independence.
Examination

In standing observation, it was noted that the patient presented with a slight increase in lumbar lordosis from a lateral view. No other postural abnormalities were detected in standing. In sitting, the patient displayed a noticeable weight shift off the right buttock towards the left.

A range of motion screen was performed on the lower extremities and lumbar spine. The patient’s hip, knee, and ankle active range of motion was within functional limits bilaterally, but reproduction of symptoms was noted with right hip flexion, lumbar flexion, and extension. Pain with lumbar flexion was greater than lumbar extension. Active lumbar range of motion was measured using an inclinometer placed on the lumbar spine. The patient’s lumbar flexion and extension range of motion measured 70 degrees and 15 degrees, respectively. Normal lumbar range of motion for forward flexion ranges from 40 to 60 degrees and 20 to 25 degrees for lumbar extension.10 Lumbar rotation and side bending were screened and found to be within functional limits. Dermatome testing for nerve root involvement was performed using light touch from the pads of the therapist index and middle finger to assess for neurological tissue involvement. Sensation was found to be equally bilaterally for dermatomes L1-S2.

Multiple examination techniques were deferred during the first visit due to the patient’s high level of pain. Assessment was resumed at the patients second visit. Spinal segment and SI mobility testing yielded no significant results. Myotome testing for neurological weakness found L2 and L5 myotomes on the right to be weak and pain free,
indicating neurological involvement. Manual testing of muscular strength revealed 4/5 strength for right hip flexion (L2) and 4/5 for right hip extension (L5).

A variety of special tests were performed to confirm the medical diagnosis and assist in determining the course of physical therapy intervention. Majlesi, et al\textsuperscript{11}, found the Straight Leg Raise (SLR) test to be highly specific (89\%) in diagnosing lumbar disc herniation; however, the test was not found to be sensitive (52\%). The study also showed that the Seated Slump test was a better clinical diagnostic tool then the SLR with sensitivity of 84\% and specificity of 83\%.\textsuperscript{11} Both the Seated Slump test and the SLR were used in this case. These results of these tests are summarized in Table 1. The SLR in this case was negative on the left and positive on the right at 40 degrees of hip flexion indicating neural tissue involvement. The patient reported reproduction of symptoms during the Seated Slump test when knee extension was performed on the right lower extremity. These symptoms decreased with neck extension suggesting a positive slump test for neural tension. The patient responded positively to spinal unloading indicating she may benefit from traction.\textsuperscript{12}

<table>
<thead>
<tr>
<th>Table 1. Summary of special test findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Special Test</strong></td>
</tr>
<tr>
<td>Straight Leg Raise (SLR)</td>
</tr>
<tr>
<td>Seated Slump Test</td>
</tr>
<tr>
<td>Spinal Unloading</td>
</tr>
</tbody>
</table>

Repeated flexion and extension was used to determine if the patient presented with a directional preference. The patient’s pain became worse with 10 repetitions in both standing flexion and extension. Centralization of her symptoms occurred with 10
repetitions of lumbar extension in prone on elbows suggesting a directional preference for lumbar extension (Table 2).

Table 2. Summary of directional preference testing

<table>
<thead>
<tr>
<th>Direction Tested</th>
<th>Centralize</th>
<th>Peripheralize</th>
<th>No Change</th>
<th>Better</th>
<th>Worse</th>
</tr>
</thead>
<tbody>
<tr>
<td>Repeated flexion: Standing x 10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Repeated Extension: Standing x 10</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>+</td>
</tr>
<tr>
<td>Repeated Extension: lying x 10</td>
<td>+</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Evaluation and Diagnosis

Prior to the initial evaluation the patient completed the Oswestry Disability index with a score reporting 34% disability. Following the completion of the physical therapist’s examination, the patient was found to have the following impairments: Pain in the lumbar region from L4 to S2, radicular pain without paresthesias in the right lower extremity, and painful lumbar flexion and extension. Given the history, examination, and MRI results, the patient was diagnosed with acute low back pain with right lower extremity radiculopathy.13

Prognosis

Research completed on the diagnosis of patients experiencing low back pain has produced heterogeneous conclusions regarding factors that may assist in determining the prognosis of patients specifically with radicular leg pain. Ashworth, et al14, were unable to determine any firm conclusions regarding prognostic factors for conservative treatment of low back pain with sciatica in a systematic review. Another review cited that there was no prognostic association in low back pain recovery found for age, BMI, smoking, increase abdominal pressures due to coughing, sneezing, or straining, pain on sitting,
slowly start of symptoms, pain intensity, sensory disturbance, Kemp's sign, and finger-floor distance. The only factor with strong evidence to predict the need for surgery as treatment for disc herniation was leg pain intensity at baseline. Current guidelines for physicians, recommend a trial of conservative therapy for at least six weeks prior to surgical intervention.

**Plan of Care**

The patient was to be seen in outpatient physical therapy two/three times a week for a total of six weeks. After the initial six weeks of therapy were completed, the patient would be re-evaluated. At that time and with therapist discretion, the patient would be discharged or admitted with a new plan of care. Treatment during the initial plan of care involved therapeutic exercise, mechanical traction, patient education, manual therapy, and modalities as necessary. Short-term and long-term goals in response to physical therapy intervention were included in the plan of care. The goals were stated as follows: 1) to improve Oswestry Disability Index (ODI) score from 34% to less than 20% within six weeks to show meaningful clinical change, 2) to decrease pain to 2/10 to allow the patient to independently don and doff shoes and socks by week four of treatment, 3) to centralize right buttock pain to the lumbar spine to allow the patient to sit for periods greater than one hour to allow her to work comfortably at her desk by the end of week six of therapy.
CHAPTER 3

INTERVENTION

The patient was seen in outpatient physical therapy two times a week for five weeks. The goal during this plan of care was to decrease the patient’s low back pain and radicular symptoms to allow the patient to return to her prior level of function. Another goal was to increase abdominal strength and lumbar stability to assist with pain control and prevent another episode of back pain from occurring. During the patient’s 10 visits the main interventions utilized included therapeutic exercise to improve spine stabilization, mechanical lumbar traction to decrease pain and radicular symptoms, and patient education to prevent further injury.

Therapeutic Exercise

In this case, therapeutic exercises were administered prior to traction and within patient’s tolerance, to improve abdominal strength, lumbar stability and decrease peripheralization of the patient’s symptoms into her right lower extremity. A summary of all exercises completed during the plan of care can be found in Table 3.

<table>
<thead>
<tr>
<th>Table 3. Therapeutic exercises performed during intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Exercise</strong></td>
</tr>
<tr>
<td>Transverse Abdominal Sets</td>
</tr>
<tr>
<td>Hooklyng March</td>
</tr>
<tr>
<td>Prone on Elbows</td>
</tr>
<tr>
<td>Prone Press Up</td>
</tr>
</tbody>
</table>


The two exercises chosen to increase abdominal strength and stability were transverse abdominal sets and hooklying marches. Both exercises were taught using a pressure biofeedback device, as well as, verbal and tactile cues. The patient was not able to progress abdominal strengthening as planned due to an increased in pain and radicular symptoms following a mammogram procedure and subsequent corticosteroid injection in her lumbar spine prior to her sixth visit.

During the plan of care, extension based exercises were used to centralize the radicular pain experienced by the patient. Static prone on elbow holds were completed during the first four visits starting with a two-minute hold and progressed by adding another minute at each visit. When the patient was able tolerate a four-minute prone on elbow holds, 10 repetitions of prone press ups without overpressure were added. Both exercises were given as part of a home exercise program. At her fifth visit, the patient reported an increase in pain and radicular symptoms during the extension exercises, which were discontinued for the reminder of treatment.

**Mechanical Traction**

Intermittent mechanical lumbar traction was initiated on the first visit to help provide decompression and pain relief. The patient was positioned supine on the traction table with her lower extremities elevated with knee bolsters (hips and knees flexed to approximately 45 degrees). Traction forces oscillated between a maximum force of 60 and 30 pounds with a hold time of 60 seconds and relax time of 20 seconds. During the initial treatment, total traction time prescribed was 10 minutes and progressed to 12 and 15 minutes during her second and third visits, respectively. Traction was completed at the end of each treatment session, following therapeutic exercise. A summary of parameters
for all visits can be found in Table 4. The patient responded well to this intervention and no adverse effects were reported during the treatment sessions. The patient expressed high satisfaction with traction and reported centralization of symptoms from buttock to low back lasting up to 24-36 hours after traction sessions. Force and total traction time were not progressed further due to patient tolerance and worsening of symptoms after her sixth visit.

Table 4. Intermittent mechanical traction protocols

<table>
<thead>
<tr>
<th></th>
<th>Visit 1</th>
<th>Visit 2</th>
<th>Visit 3</th>
<th>Visit 4</th>
<th>Visit 5</th>
<th>Visit 6</th>
<th>Visit 7</th>
<th>Visit 8</th>
<th>Visit 9</th>
<th>Visit 10</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Load in Lbs.</strong></td>
<td>60/30</td>
<td>60/30</td>
<td>60/30</td>
<td>60/30</td>
<td>60/30</td>
<td>60/30</td>
<td>60/30</td>
<td>60/30</td>
<td>60/30</td>
<td>60/30</td>
</tr>
<tr>
<td><strong>(Max/Min)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Duration in minutes</strong></td>
<td>10</td>
<td>12</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td><strong>Patient Position</strong></td>
<td>Supine</td>
<td>Supine</td>
<td>Supine</td>
<td>Supine</td>
<td>Supine</td>
<td>Supine</td>
<td>Supine</td>
<td>Supine</td>
<td>Supine</td>
<td>Supine</td>
</tr>
</tbody>
</table>

**Patient Education**

During the episode of care, patient education was provided on transfers, bed mobility, body mechanics, and ergonomics in the work place. The patient had experienced increased pain especially while rolling in bed or rising from a chair. The patient was taught how to perform transverse abdominal contractions to assist with lumbar stabilization during bed mobility and sit-to-stand transfers. When successfully utilizing this technique, the patient reported a decrease in symptoms during these motions. The use of proper body mechanics and lifting techniques were also discussed. Education on bending at the knees and not the waist was highlighted and the patient was encouraged to seek assistance to lift items heavier than 15-20 pounds. Picking up light items off the ground was taught to the patient by using the golfers pick-up to avoid increased strain on the lumbar spine. Finally, proper ergonomics in the patient’s work
environment were explained. It was suggested that the patient find a desk chair that was adjusted to the proper height for good hip alignment and one that also provided sufficient lumbar support.
CHAPTER 4
OUTCOMES

The Oswestry Disability Index (ODI) was used to assess functional outcomes. This measure has been shown to be valid and reliable for patients with low back pain and is easy to administer and score.\textsuperscript{16} The ODI was administered at the patient’s initial visit, two subsequent visits during her plan of care, and again at discharge, five weeks after initial evaluation. Overall, the patient’s Oswestry score improved from 34\% disability at initial visit to 26\% disability at discharge. An improvement of 12\% -15\% is required to reflect a minimal detectable change.\textsuperscript{17} Therefore, according to the functional measure the patient in this case did not significantly improve in function over the course of care. A summary of all Oswestry scores during the episodes of care can be found in Figure 1.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{oswestry_scores.png}
\caption{Oswestry Score Variation During Episode of Care}
\end{figure}

14
The patient was progressing as expected until the sixth visit. The patient reported for an annual mammogram procedure where she stated she was in an uncomfortable position for an extended period. By the evening after the procedure, the patient was experiencing 10/10 pain in her low back, right buttock, and right calf. The patient was brought to the emergency room by her husband two days after her mammogram procedure. The emergency room staff administered another corticosteroid injection, to the L5-S1 region, which failed to lessen the patient’s pain symptoms. The patient returned to physical therapy for her sixth visit and expressed an increase in peripheralized pain extending to her calf. She also reported numbness on the lateral border of her right 5th metatarsal.

Due to the patients change in condition, the following evaluation components were reassessed: range of motion, myotomes, and dermatomes. The patient demonstrated a significant change in lumbar spine range of motion from her initial visit. Lumbar flexion decreased from 70 degrees at the initial visit to 30 degrees at the sixth visit and lumbar extension also decreased from 15 degrees to 8 degrees.

At the initial evaluation, the patient showed possible neurological involvement of the L2 and L5 myotomes on the right. During reassessment at the sixth visit, neurological involvement had worsened to include the right S1 myotome. Manual muscle testing of the gastrocnemius muscle showed 2/5 weakness on the right. Dermatome testing showed a decrease in light touch sensation on the lateral border of the right foot compared to the lateral border of the left foot suggesting right S1 nerve root involvement.
With the change in symptoms, the patient was advised to return to her primary care physician. Continuation of physical therapy was recommended by the doctor while the patient waited for a surgical consultation. The patient was seen four more times after her setback. The patient continued to respond well to traction and felt centralization of her symptoms to the right buttock, lasting for approximately 24 hours after treatment. Abdominal exercises were not able to be progressed due to increased level of pain during low level transverse abdominal sets.

The patient was discharge from physical therapy after her 10th visit to receive elective micro-discectomy of the L5-S1 vertebral disc. The patient did not make any significant functional improvements during her time in physical therapy, although, her discharge Oswestry score did suggest some improvement. No plan of care goals were met prior to patient discharge. The patient could don and doff shoes independently but only with slip on shoes. She was still not able to bend over far enough or bring her foot to rest on her thigh to tie her shoes. The patient was agreeable to the terms of discharge and expressed her satisfaction with the care she received at the physical therapy clinic.
CHAPTER 5
DISCUSSION

This case report explored the physical therapy intervention used to conservatively treat a 53-year-old female patient with radiological evidence of a L5-S1 intervertebral disc herniation. She experienced pain in her low back, right buttock, right calf, and lateral border of the right foot along with neurological involvement of the S1 nerve root causing sensation loss in the right foot and weakness of the right gastrocnemius muscle. Although the patient in this case did not significantly improve in functional status, she did report improvement in pain symptoms following the application of mechanical traction. This improvement suggests a benefit of using mechanical traction as a method of pain relief in clinical practice even though there is little conclusive evidence to support the effectiveness of traction in research.

There is controversy surrounding the use of conservative treatment versus surgical intervention for patients with lumbar disc herniation. According to The New England Journal of Medicine, surgery is generally offered to patients after six weeks of conservative treatment that yields no change in or worsening of symptoms. However, there is not a clear consensus between medical professionals dictating an optimal length of conservative management prior to seeking surgical intervention in order to provide successful outcomes for patients. Studies comparing operative and non-operative lumbar disc herniation treatment suggest that both options provide the same functional recovery after a one to two-year period. However, according to Peul and colleges
patients who underwent surgical intervention felt relief from symptoms twice as fast as those who were treated conservatively, specifically from radicular leg pain caused from disc herniation. This leads to the assumption that patients are more likely to have elective surgery if they are not able to cope with the intensity of their radicular symptoms or if they want to minimize recovery time. As always, with surgical procedures, there are risks involved; however, there is little evidence to show that either form of treatment causes harm.

The patient in this investigation elected to have a microdiscectomy procedure after an increase in pain and neurological symptoms at the completion of five weeks of conservative treatment. Treatment involved corticosteroid injections, oral pain medications, and physical therapy interventions such as mechanical traction and core stability exercises. At week two of physical therapy treatment, the patient showed promising results of recovery with a clinically significant ODI score improvement by 14 percent. A setback in week three brought new neurological symptoms and decreases in function, prompting a surgical referral. The patient in this case was presented with options regarding her care and made an informed decision to terminate physical therapy services and schedule the surgical procedure.

A limitation of this case report was lack of time to fulfill the plan of care. The patient was discharged from physical therapy by her request to have elective surgery. Additional time given to conservative physical therapy may have produced beneficial results in symptom reduction and return to baseline functional status. Research on length of recovery from lumbar disc herniation because of conservative treatment should be explored.
Reflective Practice

The experience with this patient was one of my first exposures to someone with a herniated disc. Looking retrospectively there are a few things I may do differently in the future. First, I may try using other interventions in the treatment of this patient because she was not able to perform many exercises due to her high level of pain. One of these interventions would be manual therapy. We could have tried mobilizations of specific vertebral segments to target the effected tissues or massage techniques to help decrease muscle spasm. I would also not be as quick to give up on the repeated extension movements in the future. The patient was finding some relief at the beginning of treatment from extension exercises, however, after she experienced a change in her symptoms these exercises were removed from her plan of care. It would have been beneficial to continue the motions for a few more sessions to see if she may have eventually shown centralization of symptoms.

Second, I would have tried tweaking the traction protocols used with this patient. She seemed to find pain relief, however, mechanical traction didn’t seem to influence the structural pathologies. We could have changed from intermittent to static to give the disc material greater chance to migrate back within its borders. It may have also been a good idea to change from supine to prone lying during traction because extension was her preferred position. It is unknown if these changes would have increased our chances of reducing the herniation, but it may have been beneficial to attempt multiple therapies when current interventions are not progressing or if symptoms have plateaued. I would have also liked more time with this patient, but with her change in symptoms and request
for surgical consult that was out of my hands. Overall, I was disappointed with the conservative management outcome of this patient, but it was a great learning experience for future practice.
REFERENCES


