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Case Report

Case Study on Prolapsed Lumbar Intervertebral Disease (PLID): An Acupuncture Treatment in Bangladesh

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Abstract

Back pain and sciatica are common afflictions for adults. Working hours are reduced significantly, as well as financial losses for people and the government as a consequence of these changes. These individuals require a comprehensive assessment before treatment can begin. Medical or surgical therapy that falls short of a patient's needs may wreak havoc and exacerbate their condition. The aim of this case report see the effects of acupuncture in the treatment of PLID. This observational study was done in Suo-Xi Hospital, Shantinagar, Dhaka. A 30 years old male patient's patient visited in the clinic complaining of low back discomfort that has been spreading down her left leg for the past two months. Diagnosis was confirmed by MRI of lumbo sacral spine. The results of the follow-up study were excellent. The Low back pain for 14 months which radiate towards left leg showed signs of healing after the 12th day of acupuncture. The patient's lower back pain, which had been spreading down his left leg, was no longer present. ***Conclusion*:** Acupuncture can confirmatively promote the functional recovery for patients with PLID.

Keywords: PLID, Acupuncture, Chinese technique, Physiotherapy, Low Back-pain, lumbar disc, Lumbar Inter Vertebral Disc, Disc dehydration, Lumber mobilization, Manipulation, Stretching.

INTRODUCTION

Intervertebral disc prolapse is common in the clinic and can cause pain in the lower back and/or legs. There is a 1.9%- 7.6% chance of a man developing the condition and 2.2% of women developing it [1]. Chronic lumbar vertebral column disease (PLID) is one of the most common, chronic lumbar vertebral column diseases of elderly people, leading to back pain, low-back pain, sciatica, quadra equines syndromes, radicular pain, and neurological deficit due to nerve root compression that causes radiating pain up to the whole lower limb [2, 3]. Collagen, proteoglycan and glycosaminoglycan are the building blocks of the lumbar intervertebral disc. These components work together to disperse the stresses that are applied to our spines. The disc fibro chondrocytes may senesce and their proteoglycan synthesis decreases naturally as we age. Due to dehydration and collapsing discs, the surrounding annulus fibrosus is put under more pressure. If the disc is subjected to enough pressure, tears and fissures in the annulus may form, making it easier for disc material to herniate [4, 5]. The ejection of disc material may occur in the event of a catastrophic breakdown of the annular fibers in the presence of a significant biomechanical stress. Medical condiververtibral dissection of the spine, often known as a slid disc, is a condition in which a rupture in an intervertebral disc's outer fibrous ring disallows the soft, core component to protrude out beyond the injured outer rings. There are very few instances in which one loses control of one's bowels or bladder. A herniated or ruptured disc in the lower back is a frequent cause of lower back and leg discomfort. Pain, muscular spasm or cramping, sciatica, and loss of limb function are all possible symptoms of a herniated disc. When you sneeze, cough, or bend, you're likely to feel more discomfort. An intervertebral disc's spongy inner matrix

dries out, resulting in prolapsed lumbar disc disease. Patients and doctors alike often refer to the phrase lumbar disc disease when discussing back pain or sciatica. A herniated disc in the lower back is referred to as a "lumbar herniated disc" in this article. Lumbar disc disease is considered to be responsible for one-third of all back pain. Pain, muscular weakness, and loss of touch sensitivity may result if this herniation involves compression of the most proximal nerve adjacent to the intervertebral disc. The nerve is crushed, and the pain radiates down the back of the leg, the side of the calf, and the inside of the foot, depending on the location (sciatica). Between the fourth and fifth lumbar vertebrae or between the fifth lumbar vertebra and the first sacral segment, nerve root impingement is most prevalent. An MRI scan should be used to confirm the diagnosis in patients who are experiencing symptoms. Although it is inferior to an MRI scan, a CT scan may be suggested for patients with mild symptoms since it is quicker and less expensive. An MRI scan is better at depicting soft tissue than a CT scan, which is better at showing bone. Construction, building, iron or metal, food and nutrition, and occupational driving are among the high-risk jobs that have been identified as having the most PLID cases. Drivers from all walks of life have an elevated chance of accident, regardless of how much PLID they may have. Examples of high-risk jobs for women include domestic assistants, private sector service employees, and sewing machine operators. The majority of these women work in the same sectors as men. Based on the patient's medical history, Disparities in the risk of hospitalization across several occupational groups are statistically significant and consistent.

CASE REPORT

A male patient in his 30s came into our clinic complaining of soreness in his low back that had been radiating down his left leg for the previous fourteen months. For the purpose of our study on, we undertake screening of the lumbosacral spine using MRI. The MRI revealed that the lumber's lordotic curvature had been corrected. At the L4-L5 level, a dehydrated disc with central and both para central disc herniation indented the ventral thecal sac and moderately compressed the traversing L5 nerve roots on both sides. Herniated disc with facet hypertrophy on both sides, which obliterates the lateral recesses and narrows the neural foramina inferiorly. It was observed that the spinal canal was just slightly constricted. The patient was found to be suffering from a prolapsed lumber intervertebral disc, which was determined to be the root cause of their problem.

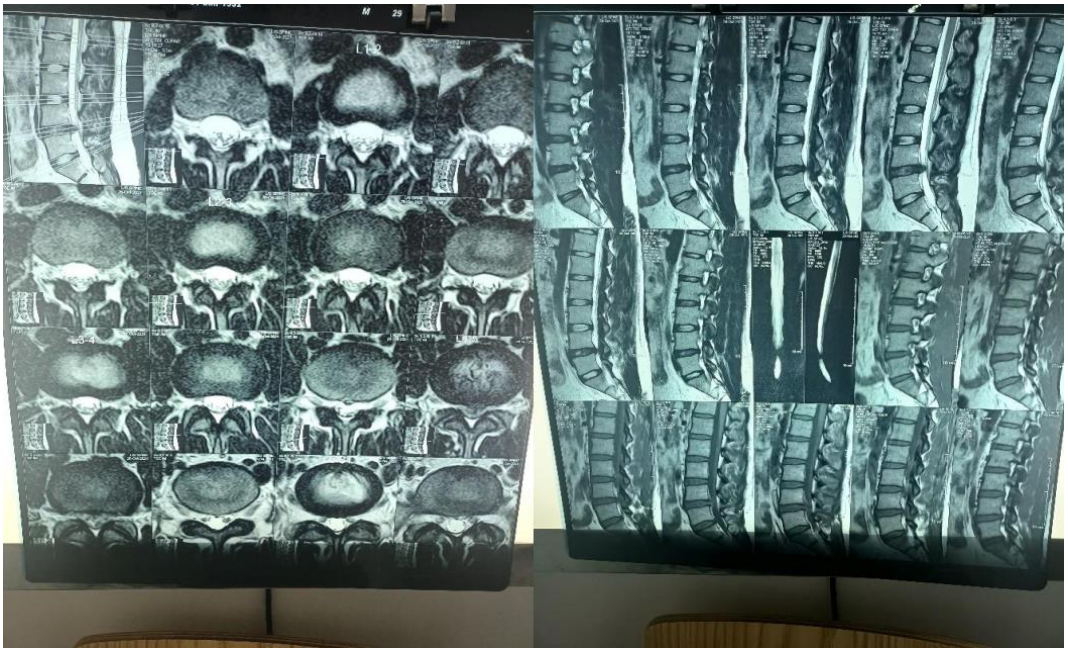

Figure A: MRI of Lumbo Sacral Spine reveling L4-L5 level desiccated disc with central and both para central disc herniation indenting ventral thecal sac and mildly compressing traversing L5 nerve roots of both sides. Herniated disc and facet hypertrophy obliterating the lateral recesses and narrowing neural foramina inferiorly on both sides

In order to begin treatment, practitioners employ acupuncture at lumber region, Chinese method, and physical therapy (Lumber mobilization, Manipulation, stretching). An acupuncture therapy for chronic pain is widely used in the treatment of this condition. When using phonetic methods, low back pain is slowed by the requirement to choose from a list of phonetically similar characters, whereas root shape methods allow for extremely precise and rapid input but have a steep learning curve because they frequently necessitate an in-depth knowledge of the stroke and component compositions of a character. During our physiotherapy sessions with the patient, we performed manipulation, and mobilization techniques. The

outcomes of the follow-up study were outstanding. After the 12th day of acupuncture, there was noticeable improvement in the low back pain which was radiating towards left leg. A persistent soreness in the patient's lower back that had been radiating down to his left leg has been eliminated.

Figure B: Giving Acupuncture at lumber region

DISCUSSION

Lumbocrural pain is the most common symptom of the most common orthopedic problem, which is a protrusion of an intervertebral disc in the lower back (also known as a lumbar disc herniation). A common surgical procedure for the treatment of lumbar intervertebral disc prolapse is called fenestration of the vertebral lamina [6, 7, 10]. This molecule has a variety of beneficial properties, including anti-inflammatory, decongestant, blood circulation-promoting, and collateral dredging properties, and it does not have any adverse effects. Moxibustion and acupuncture are based on the theories of channels and collaterals, both of which will be covered in further detail in the next paragraphs. According to what is now known, the neurological system, the muscular system, the circulatory system, and the lymphatic system all collaborate to form channels and collaterals that are subsequently utilized by other systems [9-11]. The patient, a young man of 30 years of age, presented at our clinic with symptoms of low back ache that had been continuous for fourteen months and that had radiated to her left leg. He also complained that the pain had been radiating down her left leg. Being in so much agony was a horrific experience. We conducted a great deal of the testing ourselves. L4-L5 level desiccated disc with central and both para central disc herniation indenting ventral thecal sac and gently compressing traversing L5 nerve roots of both sides was seen by MRI of the lumbar spine at the L4/L5 level. Due to a herniated disc and facet hypertrophy, the lateral recesses have been obliterated, and the neural foramina have been narrowed inferiorly on both sides. This icon denotes that the person in question have PLID status. Acupuncture, the Chinese method, and physical therapy were some of the treatment modalities that were used in the course of the patient's care. Everything turned out to be successful in the end. Following the twelfth acupuncture treatment, the patient began to experience a reduction in the stiffness in their lower back as well as the discomfort that was radiating down their left leg. It seems that the therapy was effective.

CONCLUSION

The outcomes from the follow-up investigation were outstandingly positive. Following 12 days of acupuncture treatment, the left leg started exhibiting signs of improvement in its condition. The patient no longer complained of the pain in his lower back that had been radiating down his left leg. This pain had been present earlier. Acupuncture has been shown to be effective in helping patients with PLID with their functional rehabilitation, which may be beneficial to these patients.

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