



Prolapsed Lumbar Intervertebral Disease through Acupuncture Treatment in Bangladesh: A Case Study

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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Case Report

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ABSTRACT

Two of the most frequent health conditions are low back pain and sciatica. Both the number of hours worked and the amount of money lost by workers and the country as a whole are drastically reduced. It's important to undertake a comprehensive physical evaluation on these people before initiating any therapy. It is likely that symptoms can increase as a consequence of obtaining inadequate medicinal or surgical care. To observe acupuncture's influence on prolapsed lumbar

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intervertebral disc therapy. This inquiry took place at Suo-Xi Hospital at Shantinagar, Dhaka, Bangladesh. A 40-year-old male patient has been complaining of lower back discomfort for the last two months. The diagnosis was confirmed with a cervical spine Magnetic resonance imaging. Follow-up research showed promising outcomes. He no longer felt discomfort in his lower back, which he had been experiencing for two months. Prolapsed lumbar intervertebral disc patients may benefit from acupuncture, according to the findings of this study.

Keywords: *PLID; acupuncture; physiotherapy; mobilization; manipulation; low back-pain; lumbar disc.*

1. INTRODUCTION

One of the most prevalent causes of lower back and leg pain is a prolapsed lumbar intervertebral disc (PLID). In males, the prevalence of PLID varies from 1.9 to 7.6 percent, whereas in women, it is between 2.2 and 5.0 percent [1]. Due to nerve root compression, patients with PLID are more prone to suffer from back pain, lower back pain (including sciatica), quadra equines syndromes, and radicular discomfort [2,3]. As a consequence, discomfort spreads down the whole lower leg. Collagen, proteoglycan, and glycosaminoglycan make up the lumbar intervertebral discs. There is less of a strain on the spine because of this. The ability of fibrochondrocytes to synthesize fatty acids declines with age, which is a common feature of the degenerative process in the disc [4,5]. The annulus fibrosus is put under more strain as the disc dries up and finally collapses. When a disc is put under a lot of stress, it might develop rips and fissures that make it more likely for the material to herniate. Disc material may be ejected from a healthy disc if the annular fibers rupture catastrophically, resulting in high biomechanical stresses. PLID or a sliding disc happens when the outer rings of an intervertebral disc are ruptured due to condivertibral dissection, a medical disease. Medical assistance should be sought immediately if one loses control of one's bowels or bladder [6,7,8]. Lower back and leg pain might be caused by a ruptured or herniated lumbar disc. Leg discomfort, numbness, and tingling are all possible signs of a herniated disc. All of these things appear to make the discomfort worse. Prolapsed disc disease occurs when the intervertebral disc matrix dries up. Lumbar disc disease is a catch-all term for a variety of conditions causing back and sciatica pain, including degeneration of the lumbar disc. This image depicts a herniated disc in the lumbar region. Lumbar disc degeneration is thought to be responsible for one-third of all occurrences of back pain. If it compresses the nerve fibers

nearest to the skin, this herniation may produce discomfort, muscle weakness, and a loss of tactile feeling. When a nerve is injured, it causes pain to radiate down one leg, down the calf, and into the foot (sciatica). Driving with PLID increases the likelihood of a collision for drivers of all skill levels, including novices. Women who work as domestic helpers, service providers in the private sector or seamstresses all face a high level of danger in their occupations. In the same fields as their male colleagues, these women are employed. According to medical records, employees with PLID are more likely to be hospitalized.

2. CASE REPORT

A 40-year-old male arrived at our clinic complaining of low back discomfort that he had been enduring for the previous two months and that had become unbearable for him. In this experiment, which was carried out in the laboratory, the MRI of the cervical spine was employed as a tool. An MRI scan demonstrates modest degenerative osteoarthritic alterations in the L4-L5 vertebrae, which are associated with disc dehydration. An investigation found that the patient's symptoms were caused by a prolapsed Lumbar Intervertebral Disc in this specific case.

Lumbar mobilization and manipulation, as well as acupuncture in the lumbar region, are all treatments that practitioners use to get patients started on their treatment plan. When working with the patient, we use lumbar mobilization and manipulation techniques to help him move more freely and comfortably in his environment. The outcomes of the follow-up study were overwhelmingly positive and optimistic, and the overall conclusion was equally positive and hopeful. After receiving his first acupuncture treatment in the lumbar area, the patient saw a considerable improvement in his health state. After experiencing lower back discomfort for a lengthy period of time, the patient's lower back pain reduced, bringing about an unanticipated sense of relief for him.



Fig. 1. Preoperative images of MRI of cervical spine revealing PLID at L4-L5 level of the patient.



Fig. 2. Giving acupuncture at the lumbar region of the patient

3. DISCUSSION

Lower back discomfort caused by a prolapsed intervertebral disc is the most frequent cause of orthopedic sickness, making it the most common kind of orthopedic illness (lower back pain). The fenestration of the vertebral lamina is a common surgical procedure used to treat lumbar intervertebral disc prolapse, which is a condition that affects the lower back [9]. Anti-inflammatory, detumescent, blood-flow-enhancing, and collateral-dredging capabilities of this medicine are associated with no unfavorable side effects in clinical trials [10]. A thorough grasp of the notions of channels and collaterals is required in order to practice acupuncture and moxibustion. These concepts are explored in further detail below. According to current research, the neurological and muscular systems work together to form channels and collaterals that are then utilized by other organs and systems to communicate and function. We received a visit from a 40-year-old patient who had been experiencing symptoms of low back pain for approximately one and a half years when he arrived at our clinic. Becoming used to such agony was awful. We carried out a huge number of experiments on our own time and with our own resources. A disc dehydration problem is detected at the L4-L5 level of the lumbar spine while using an MRI of the cervical spine to investigate the lumbar spine at the L4-L5 level using an MRI of the cervical spine. Aside from that, modest degenerative osteoarthritic alterations of the L4-L5 vertebral bodies were seen on the MRI scan. In this case, the individual in issue is PLID, as shown by this symbol. In order to treat the patient's condition, acupuncture and physiotherapy were both employed in concert with one another. After everything was said and done, everything was perfect. The soreness in the patient's lower back has greatly diminished after the first acupuncture session. However, in the end, the therapy was effective.

4. CONCLUSION

The results of the follow-up investigation were astounding. Acupuncture treatments for the patient's low back began to relieve the patient's discomfort after the third session. The patient's lower back discomfort has completely disappeared. Acupuncture has been shown to be beneficial to people suffering from Prolapsed Lumbar Intervertebral Disease (PLID).

CONSENT

As per international standard or university standard, patient(s) written consent has been collected and preserved by the author(s).

ETHICAL APPROVAL

As per international standard or university standard written ethical approval has been collected and preserved by the author(s).

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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