



Research Paper

## Acupuncture Treatment in Prolapsed Lumbar Intervertebral Disease (PLID): A Case Study

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### Abstract

Back pain and sciatica are common complaints among adults. Working hours are reduced significantly, as well as financial losses for people and the nation. One must do a comprehensive investigation before treating these people. It is possible that insufficient medical or surgical therapy can worsen symptoms. The of the study is to see the effects of acupuncture in the treatment of PLID. Suo Xi Hospital, Shaan Tower, Chamelibagh, Santinagar, Dhaka, Bangladesh, was the site of this investigation. For the last four months, a 25-year-old man's patient has been complaining of low back pain radiating down his left leg. Transmission electron microscopy was used to confirm the diagnosis (TEM). The results of the follow-up study were excellent. The patient's lower back pain, which he had been suffering for the last 4 months, was no longer present. Patients with PLID may benefit from acupuncture, according to this research.

**Keywords:** PLID, Acupuncture, Acupuncture, Chinese technique, Physiotherapy, Low Back-pain, lumbar disc, Lumbar Intervertebral Disc, Disc dehydration

Received 23 July, 2022; Revised 04 August, 2022; Accepted 06 August, 2022 © The author(s) 2022.

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### I. INTRODUCTION

One of the most common reasons for low back and/or leg discomfort is the prolapsed lumbar intervertebral disc (PLID). When it comes to males, the prevalence ranges from 1.9% to 7.6%, and in women from 2.2% to 5.0%.<sup>[1]</sup> One of the most common, chronic lumbar vertebral column diseases in elderly people, PLID is associated with back pain, low back pain, sciatica and quadra equines syndromes as well as radicular pain and neurological deficit due to nerve root compression, which results in radiating pain up to the entire lower limb.<sup>[2-5]</sup> Collagen, proteoglycan, and glycosaminoglycan are the building blocks of the lumbar intervertebral disc. They help to distribute the stresses applied to the spine. Proteoglycan synthesis declines when disc fibro chondrocytes senesce as part of the natural aging process. As a result of the disc's dehydration and eventual collapse, the annulus fibrosus fibers that surround it are put under more stress. If the disc is subjected to enough pressure, tears and fissures in the annulus may form, making it easier for disc material to herniate. Large biomechanical forces may cause the expulsion of disc material in the context of a catastrophic collapse of annular fibers in a healthy, normal disc. It is a medical condidivertibral dissection that affects the spine and causes the soft, core component of an intervertebral disc to slide out beyond its damaged outer rings, known as PLID or a slipped disc. The loss of control over one's bowels or bladder is rare, thus it is important to seek immediate medical assistance if it happens.<sup>[6-9]</sup> Lower back and leg discomfort may be caused by a ruptured or herniated disc in the lumbar spine. Muscle cramps, sciatica, and numbness or tingling in the legs are all signs of a herniated disc, which may be painful or even debilitating. The discomfort is frequently made worse by coughing, sneezing, or leaning over. Drying of the spongy intervertebral disc matrix causes prolapsed disc disease in the spine. Lumbar disc disease is a phrase that many doctors and patients use to describe a wide range of back and sciatica pain conditions. An example of a lumbar herniated disc is described here. About one-third of all cases of back pain are assumed to be the result of lumbar disc degeneration. If this herniation involves the compression of the most proximal section of the nerve, pain, loss of muscular strength and loss of touch

sensation may result. The nerve is crushed, and the pain radiates down the back of the leg, down the side of the calf, and on the inside of the foot (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. Transmission electron microscopy should be used to confirm the diagnosis in symptomatic patients (TEM). In 2D, transmission electron microscopy (TEM) is better at depicting soft tissue than a computed tomography (CT) scan. Workers in the construction and building industry; the iron or metal industry; food and nutrition; as well as occupational driving were shown to be among the most at risk for developing PLID. Professional and non-professional drivers alike are subject to some degree of PLID, which increases their likelihood of being in an accident. Among women who work in high-risk occupations include domestic assistants, private sector service employees, and sewing machine operators. The majority of these women work in the same industries as men. PLID is statistically significant and systematic in the chance of hospitalization across several occupational groups, according to the medical case history.



## II. CASE REPORT

A 25-year-old male patient came to our clinic complaining of low back soreness that had been creeping down her left leg for the previous two months and had become unbearable. Our study is carried out with the use of transmission electron microscopy (TEM). The disc height at the L4/L5 level was lowered as a result of disc dehydration, as shown by transmission electron microscopy (TEM). Facetal hypertrophy is associated with thecal sac depression, middle canal stenosis, and the left lateral recess of the facement in the posterior central and left paracentral disc bulges, among other symptoms. The cauda was taken from an equine, and the spinal cord can plainly be seen in the specimen.



Although the soft tissues of the paravertebral area are not very significant, they are there nevertheless. cervical spine screening detects early indicators of degenerative disc disease in the cervical spine and helps to prevent further deterioration. In this case, a prolapsed Lumbar Intervertebral Disc was discovered to be the source of the patient's symptoms.

**Picture A:** Transmission electron microscopy (TEM) showing the Prolapsed Lumbar Inter Vertebral Disc identification.

Acupuncture, the Chinese technique, and physical therapy are all used by practitioners to get patients started on their treatment. The use of acupuncture therapy for chronic pain is becoming more popular in the treatment of this disorder. A computer user may utilize Chinese input methods to type Chinese characters into a computer while using a Chinese keyboard. Both phonetic readings and root forms are the two most common techniques of inputting Chinese characters into a computer, and they are both effective. Root shape approaches, on the other hand, allow for incredibly accurate and speedy input but entail a steep learning curve since they typically require an in-depth understanding of the stroke and component compositions of a character. When working with the patient, we used isometrics, manipulation, and mobilization methods to help him move more freely. The results of the follow-up study were quite positive and encouraging. After the third day of acupuncture treatment in the lumbar area, there was a considerable improvement in the condition of the patient. The patient's lower back pain had been bothering him for a long time, but it was abruptly gone.



**Picture B:** Giving Acupuncture in the Lumbar Region

### III. DISCUSSION

A prolapsed intervertebral disc in the lower back is the most common orthopedic illness, and the most common symptom of this ailment is lumbocrural discomfort (lower back pain). The fenestration of the vertebral lamina is a common surgical procedure used in the treatment of lumbar intervertebral disc prolapse, and it is performed on a regular basis. [6,7,10] Anti-inflammatory, detumescent, blood circulation-promoting, and collateral-dredging properties are all possessed by this substance, and there are no negative side effects associated with using it. In order to practice acupuncture and moxibustion, one must first understand the ideas of channels and collaterals, which are explored in further detail below. As currently understood, the neurological, muscular, circulatory, and lymphatic systems all collaborate to form channels and collaterals that are subsequently used by other systems [9-15] and other organs. The patient, a 25-year-old young man, presented to our clinic with symptoms of low back soreness that had been present for four months at this point. It was excruciating to be in such discomfort. We carried out a large number of experiments on our own. When using transmission electron microscopy (TEM) to examine the lumbar spine at the L4/L5 level, it is discovered that there is disc dehydration at the L4/L5 level, which is associated with a reduction in disc height. In addition to bulges in the posterior central and left paracentral discs, facet hypertrophy resulting in thecal sac depression, middle canal stenosis, and a recess in the facement on the left side, the discs are also enlarged. As shown by this sign, the person in question is PLID. The patient's illness was treated using acupuncture, the Chinese method, and physical therapy, all of which were complementary therapies. Overall, everything turned out fine in the long run. After the third session of acupuncture, the pain in my low back has lessened dramatically. Fortunately, the therapy was effective.

### IV. CONCLUSION

The results of the follow-up investigation were spectacular. After the third day of acupuncture, the low back pain began to show recovery. Pain in the lower back of the patient had disappeared. Acupuncture has been shown to help patients with PLID regain their functioning abilities.

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