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CASE REPORT

AN INNOVATIVE PHYSICAL THERAPY APPROACH TOWARDS A COMPLEX CASE OF PIVD WITH VARICOSE VEINS

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ABSTRACT

PIVD is the protrusion from the nucleus pulposus through the rent within the annulus fibrosis. L4-L5, L5-S1 discs are most commonly affected in 95 percent of lumbar disc herniation. As we grow older the discs which are present in our vertebral column, become less flexible and begin to harden, making it more susceptible to tears. The herniated disc may be caused by a single undue strain or injury. However, as disc degeneration progresses with age, a few people may suffer herniated discs from more minor activities or twists. The patient was a 38-year-old female who presented with a complaint of pain in the neck & back which was 8 on Vas, pain in both limbs (upper & lower) which was 7 on Vas, Numbness present in Upper limb fingers, Stiffness in all joints along with pedal edema. The patient also had a varicose vein on both lower limbs grade 3. She was admitted to the hospital because she was not able to even get up from the bed due to pain. She was working in a mess for 8 years the work included prolonged standing, bending down, lifting heavy weights, and sitting on the floor for a long period. Due to pain, she was not able to continue her work. Ayurvedic treatment along with physiotherapy treatment was going on. The patient had the same complaints before 12 months she was relieved by physiotherapy. The patient had three laser sessions done for a varicose vein but was not relieved before 1 year. According to the clinical presentation and Radiological findings the patient was diagnosed with PIVD. This case study shows that regular exercise, traction, back strengthening exercise, use of modalities such as IFT, and following proper ergonomics would reduce the symptoms associated with PIVD and varicose veins.

KEYWORDS: PIVD, Low Back Pain, Varicose vein, Prolapse disc.

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INTRODUCTION

PIVD is the protrusion from the nucleus pulposus through the rent within the annulus fibrosus. L4-L5, L5-S1 discs are most commonly affected in 95 percent of lumbar disc herniations.(1). As we grow older the discs which are present in our vertebral column, become less flexible and begin to harden, making it more susceptible to tears. The herniated disc may be caused by a single undue strain or injury. However, as disc degeneration progresses with age, a few people may suffer herniated discs from more minor activities or twists.(2)

A prolapsed disc is commonly referred to as 'slipped disc,' where the disc may not usually slip, but the portion of the inner softer part of the disc protrudes out or herniates through a weakness in the outer surface of the disc. The prolapsed intervertebral disc is also called the herniated disc. A PIVD/prolapsed disc is often called a herniated disc. The bulging disc may press on surrounding structures, such as a nerve coming from the spinal cord.(3)

Some inflammation also begins to develop around the prolapsed part of the disc. Every other disc in the spine may prolapse. However, most prolapsed discs occur in the lumbar part of the spine (lower back). The size of the prolapse may differ.(4) Surgical treatment with PIVD resection and decompression of the compressed nerve root has been the most widely accepted surgical treatment for several decades. The knowledge of the surgical procedure with most spine surgeons and the rapid and lasting relief following treatment are the hallmarks.(5) Although treatment is defined and streamlined and the scope of the dispute is limited, postoperative and delayed complications following disc removal attempts are well known.(6)

PATIENT'S INFORMATION

The patient was a 38-year-old female who presented with a complaint of pain in the neck & back which was 8 on Vas, pain in both limbs (upper & lower) which was 7 on Vas, Numbness present in Upper limb fingers, Stiffness in all joints along with pedal edema. She was also diagnosed with the varicose vein on both lower limbs (grade 3) for 7 years. She was admitted to the hospital because she was not able to even get up from the bed due to pain. She was a mess in charge for 8 years the work included prolonged standing, bending down,

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lifting heavy weights, and sitting on the floor for a long period. Due to pain, she was not able to continue her work. Ayurvedic treatment along with physiotherapy treatment was going on. The patient had the same complaints before 12 months, an MRI report revealed PIVD at C6-C7 and L4-L5. She was then relieved by physiotherapy and medications. The patient had three laser sessions done for a varicose vein but was not relieved before 1 and half years this is her history. Family history not present.

CLINICAL FINDINGS

After taking informed consent of the patient physical examination was performed. On General examination, the patient was conscious, co-operative, and well oriented with time, place, and person and was comfortable in the supine and sitting position. The patient was afebrile at the time of examination. Pulse rate was 74 beats/min and respiratory rate was 20 breaths/min blood pressure of the patient was 120/80 mmhg.

Pain in neck & back which was 8 on Vas, the pain was radiating in both limbs (upper & lower) which was 7 on Vas, Numbness present in Upper limb fingers, Stiffness in all joints along with pedal edema. She also had a varicose vein on both lower limbs grade 3 as shown in Figure 1. The patient's sleep is disturbed due to pain.

Respiratory rate was 20 breaths/min, the character was regular. The chest appeared bilaterally symmetrical. Heart rate was normal regular rhythm the patient had no heart murmur. S1, S2 present. The apex beat was not visible. No focal neurological deficits. Abdominal examination - soft, non-tender, bowel sounds present.

POSTURE

On physical assessment, it was noted that she had slouching posture due to pain. The pelvis was anteriorly tilted.

ROM

Rotation of the spine was 40° and painful to the right side (ipsilateral side of the shoulder and arm pain and numbness); side flexion was also limited and painful on the ipsilateral side. Rotation also caused increased pain and tingling sensation in the arm. The range of the upper limb was normal but the patient was not able to lift her right hand beyond 90° because of pain. The range of motion of the lower limb was normal.

MUSCLE POWER

On clinical examination, we found that the muscle power was grade 4. The muscle power was tested using manual muscle testing.

SENSORY EXAMINATION

There was a slight loss of sensation over the cervical region.

MANUAL PALPATION

Palpation was performed in a prone lying position with pressure applied only to initiate pain.

SPECIAL TEST

- SLR test was positive.
- Schober's test was positive.
- Slump test was positive.

Figure 1: Patients right leg showing varicose vein

Figure 2: MRI of Spine Showing Prolapsed intervertebral disc at C4-C5, L4-L5.

EVALUATION

The patient's lower extremity and upper extremity range of motion and strength were adequate. The patient was able to talk. She was also able to walk and do her basic activities of daily living such as bathing, combing, eating, toileting activities, etc.

DIAGNOSIS

The patient was diagnosed with PIVD as shown on MRI in Figure 2 along with Varicose Vein Figure 1.

THERAPEUTIC INTERVENTION

Our short term goal was to decrease neck and back pain to at least 3 on vas, improve muscle strength, improve ROM that was reduced due to pain, reduce muscle stiffness, Reduce pedal oedema, improving posture while sitting, reduce numbness of the fingers, minimize secondary complications such increased ability to relax, enhance functional abilities, increase independence and prevent disability.

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Long term goal was to relieve her neck and back pain completely, and do not allow symptoms to reoccur, maintain ROM, improve the quality of life of the patient and make the patient return back to her work. To Restore range of motion, to restore muscle strength, endurance, and function, to Retrain kinesthetic awareness and control of normal alignment and Patient's involvement and education to manage posture to prevent recurrences.

The patient received pharmacological treatment for the initial two symptomatic months, the medications included, cefixime 250mg, Pan D 40 mg, Emazen-DP along some ayurvedic medications. The ayurvedic massage was also done every day.

ACUTE PHASE

1-3weeks

In this phase, our priority was to reduce pain, spasm and promote relaxation to the patient.

We started with a hot pack to the cervical and lumbar region of the patent it provided relaxation to the patient. Modality such and IRR was used to help relieve the pain. The patient was advised to take bed rest as much as possible at least for 3-5 days. She was also educated about basic back ergonomics such as getting up from the bed, first get into side-lying then get up from the bed. Avoid standing for a longer period she was advised to wear elastic stockings. Avoid sitting on the floor, avoid bending down. Relaxed movements only in the pain-free range of motion. Proper postural guidance was given to the patient initially as we aimed to relieve pain this treatment was given for 15 days along with shoulder Rom exercise. Shoulder retraction and protraction were done. Maximum use of upper extremity was done. To decrease the pain hot pack was applied to the shoulder the patient use to feel relaxed after the hot pack and she uses to do shoulder exercises properly after that.

Cervical traction was started after 10 days. Isometrics to cervical muscle with mild tension was started. A stronger but pain-free isometric exercise was started. Deep breathing exercises along with cyclic motions without straining the neck were given. Spinal traction particularly intermittent lumbar traction was applied as it has a vascular massaging effect along with the relaxation of the tight soft tissues.

SUBACUTE PHASE

3-6 weeks

This phase begins after 3 weeks at this point the patient's pain was reduced it was now 3 on the vas scale. For further relief, gradual mobilization through relaxation was started along with the above treatment. Mobilization of the lumbar spine was done in a prone lying position on the L4-L5 level. Mild intensity oscillations (10 reps) in an anterosuperior direction were directly applied.

Gentle extension exercises were started on forearm support. Ankle pumps to avoid pooling of blood were given to the patient. IFT was given to the patient. Myofascial Release Technique was used to reduce neck pain and shoulder pain.

By the end of 6 weeks, the patient was feeling much better the patient was given a home program. The patient was advised to keep in mind the basic ergonomics she was taught to do static back exercise. She was also advised to keep her leg raised above heart level using pillows to reduce pedal oedema and allow a venous return. She was called after 15 days for a follow-up.

HOME PROGRAMME

The patient was told to continue the exercise program and ergonomic advice, to maintain correct posture during rest and work. avoid postural attitudes that will induce excessive stress. The patient was asked to use modalities at home such as a hot pack if pain persists. Any posture or exercise causing excessive pain should be eliminated. Also to avoid one constant posture for a longer period even if it is comfortable. And continue medicines.

FOLLOW UP AND OUTCOME

After 15 days when she came for follow-up, she was not having any pain at rest but she uses to experience pain while standing up and sitting down. Her pedal oedema was reduced. The symptoms were almost fully resolved. Pharmacological interventions have helped reduce the pain of the patient temporarily. The patient started to feel better from the first physiotherapy session itself.

DISCUSSION

There are numerous strategies for the treatment of back pain and a pathoan atomic model was used for the first physiotherapy treatment of patients.[7] These identified signs and symptoms and treatment were chosen based on their response to the chosen modalities.[8]

A varicose vein is defined as an elongated, dilated vein. Pouched and thickened due to continuous dilation underneath Pressure. Other procedures for the treatment of varicose veins Are, medical procedures such as sclera therapy, ablation of radiofrequency, And outpatient phlebotomy. A surgical procedure like stripping of the vein is done. Sclero therapy with agents such as sodium tetradecyl sulfate. And polidocanol remains a useful alternative to surgery.[9]

As the patient was not relieved by laser therapy so she turned to Ayurveda and physiotherapy treatment. PIVD and Varicose vein together could be difficult to manage. Patient suffering from both requires extensive work. Managing Both requires awareness of treatment options and also patients' conditions.[10]

CONCLUSION

Days after the initial phase of treatment and resolution of the lumbar list, the most relevant treatment approach to this problem is likely to be the functional restoration program.

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Because of the improvement is shown during the first two sessions.

This case study shows that regular exercise, traction, back strengthening exercise, use of modalities such as IFT and following proper ergonomics would reduce the symptoms associated with pivd and varicose veins. Varicose veins are a rare disease. This may result in serious health problems. Early detection and treatment It's critical. Regular exercise, avoiding lengthening of sitting and standing, may not cause the disease.

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