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Patient Counseling for Disc Protrusion



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ABSTRACT

Patient counseling refers to the process of providing information, advice, and assistance to help patient use their medication appropriately. The information and advice are given by the pharmacist directly to the patient or to the patient's representative. The patient should recognize the importance of medication for his well-being. Pharmacists are trained to provide counseling to patients about medication information, side effects and other health-related topics. **Cervical:** Existing within the cervical spine or neck causes pain and numbing throughout the neck, arms and shoulder. It occurs at C5 - C6, C6 - C7. **Thoracic:** Occurring in center, of the back and can also cause cauda equina syndrome, which require immediate treatment. It typically exhibits pain throughout the chest and occurs for about 1-2% of cases. It occurs below T8 and T11-T12 are most common. **Lumbar:** Centering on the lumbar region or lower back, the pain extends to the buttocks, thighs, and legs. It occurs at L4 - L5 or L5 - S1. These symptoms required immediate medical evaluation as they may be a sign of a potentially life-threatening condition. When the sciatic nerve is affected the sensations are present down one leg or the other, but usually not both. The associated periganglionic administration of corticosteroids enhances the anti-inflammatory effect of the ozone injection. The treatment offers numerous advantages in being fast, low cost and effective in 70 - 90% of cases in different series. Healthy foods like Oranges, Walnuts, Milk and milk products, Ragi, Eggs, Green and leafy vegetables, Green tea, Almonds. Using proper lifting techniques. Maintaining a healthy weight, Excess weight puts pressure on the lower back practicing good posture. Stretching, Avoiding wearing high-heeled shoes, exercise regularly. The nonsurgical methods like exercise, medications, nutritious diet, alternative systems of treatment help to produce better tolerance and relief from pain and nerve damage.



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INTRODUCTION

Patient counseling refers to the process of providing information, advice and assistance to help patient use their medication appropriately. The information and advice are given by the pharmacist directly to the patient or to the patient's representative.

Objectives:

- The patient should recognize the importance of medication for his well-being.
- A working relationship for continuous interaction and consultation should be established.
- Potential for decreased health care costs due to appropriate use of medications and prevention of adverse effects.

A patient who should always be counseled:

Confused patients and their caregivers

Patients who are sight or hearing-impaired.

Patients with poor literacy

A patient whose profile shows a change in medications.

New patients or those receiving medication for the first time

Patients receiving medication with special storage requirements, complicated direction

Role of pharmacists: Pharmacists are trained to provide counseling to patients about medication information, side effect and other health-related topics. A pharmacist's primary responsibility is to dispense medications. In addition, pharmacists also required to inform patients of potential drug interactions and explaining possible side effects from their prescriptions. They are trained to provide advice on how to take medication, what dosage should be taken, and when it should be taken. They are made up of a tough outer layer known as annulus fibrosis enclosing a soft gel-like fluid in the centre called nucleus pulposus. In a healthy disc, the nucleus material is centered. When the nucleus presses against the outer ring, the spinal disc begins to bulge into the spine. When a disc "bulges" parts of its tough outer wall can protrude into the spinal canal and press on a nerve, which causes pain.

Disc protrusion in various parts of the spine:

Cervical: Existing within the cervical spine or neck causes pain and numbing throughout the neck, arms and shoulder. It occur at C5 - C6, C6 - C7.

Thoracic: Occuring in the center, of the back and can also cause cauda equina syndrome, which requires immediate treatment. It typically exhibits pain throughout the chest and occurs for about 1-2% of cases. It occurs below T8 and T11-T12 is most common.

Lumbar: Centering on the lumbar region or lower back, the pain extends to the buttocks, things and legs. It occurs at L4-L5 or L5-S1.

Symptoms;

Tingling or pain in the fingers, arms, neck or shoulders: These symptoms indicate a bulging disc is in the cervical area.

Pain in the feet, thighs, lower spine, and buttocks: This is the most common symptom and could indicate an issue in the lumbar region.

Difficulty in walking or feeling of impairment while lifting or holding things: These symptoms required immediate medical evaluation as they may be a sign of a potentially life-threatening condition. When the sciatic nerve is affected the sensations are present down one leg or the other, but usually not both.

Bladder incontinence can occur because of a bulging disc compressing the nerves that control the bladder.

Upper back pain radiating to the stomach or chest may be a symptom of a mid-spine disc protrusion.

Causes;

Spondylosis,

Degenerative disc disease,

Poor posture and repetitive movements,

Trauma or injury,

Obesity.

Diagnosis;

Physical tests,

Magnetic Resonance Image (MRI),

X-ray,

Computed Tomography (CT),

Electromyography/Nerve Conduction Studies (EMG/NCS),

Myelogram,

Bone scan,

Discogram / Discography.

Treatment;

Non-surgical treatment:

Medication treatment;

Over-the-counter pain medications; Acetaminophene, Ibuprofen, Naproxen

Non-steroidal anti-inflammatory drugs; Naproxen, Celecoxib, Indomethacin

Opioid pain medications; Oxycodone, Oxycodone and Acetaminophen, Meperidine, Morphine, Hydrocodon and Acetaminophen, Hydrocodon, Codein Muscle relaxant; Carisoprodol, Cyclobenzaprine, Diazepam, Metaxalone Nerve pain medication; Amitriptyline duloxetine, Gabapentin, Pregabalin, Tramadol Antidepressants Epidural corticosteroid injections

Physical therapy;

Deep tissue massage: There are more than 100 types of massages, but deep tissue massage is an ideal option if you have a herniated disc because it uses a great deal of pressure to relieve deep muscle tension and spasms, which develop to prevent muscle motion at the affected area.

Hot and cold therapy: Both hot and cold therapy offer their own set of benefits, and your physical therapist may alternate between them to get best results. Your physical therapist may use heat to increase blood flow to the target area. Blood helps to heal the area by delivering extra oxygen and nutrients. Blood also removes waste by-products from muscles. Cold therapy slows circulation (also called cryotherapy). This reduces inflammation, muscle spasms and pain. your physical therapist may place an ice pack on the target area or even use a spray known as fluorecemethane to cool inflammed tissues.

Hydrotherapy: As the name suggests hydrotherapy involves water. As a passive treatment hydrotherapy may involve simply sitting in a whirlpool bath or warm shower. Hydrotherapy gently relieves pain and relaxes muscles.

Transcutaneous electrical nerve stimulation (TENS): A TENS machine uses an electrical current to stimulate your muscles. It sounds intense, but it isn't painful. Electrodes taped to your skin send a tiny electrical current to key points on the nerve pathway. TENS reduces muscle spasms and is generally believed to trigger the release of endorphins, which are your body's natural painkillers.

Traction: Reduce the effects of gravity on the spine by gently pulling apart the bones the intent is to reduce the disc herniation. The analogy is much like a flat tire "disappearing" when you put the jack under the car and take the pressure of the tire. It can be performed in the cervical or lumbar spine.

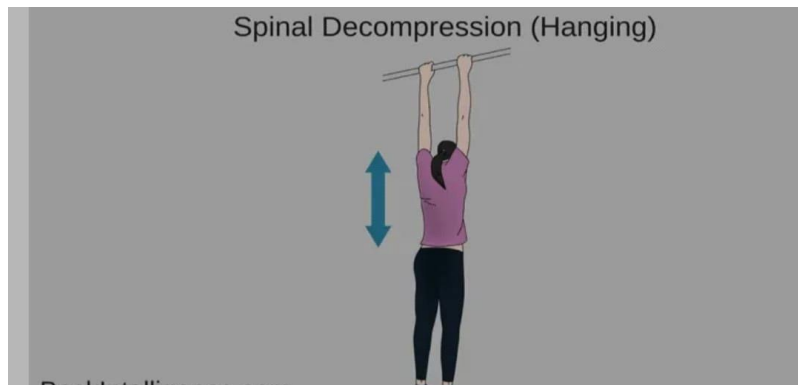
Ultrasound therapy: The back is treated with sound waves, which are small vibrations that are produced to relax the body tissue.

Limited bed rest: Too much bed rest can lead to stiff joints and muscles, which can complicate recovery. Instead of remaining in bed, rest in a position of comfort for 30 minutes and then 90 for a short walk or do some light work, avoiding activities that worsen the pain.

Braces and support devices: These devices can help by providing compression and stability to reduce pain.

Exercise:

Spinal decompression:



Standing extension:



Half Cobra Pose/ Prone Lumbar Extension:



Full Cobra extension Pose /Advanced:



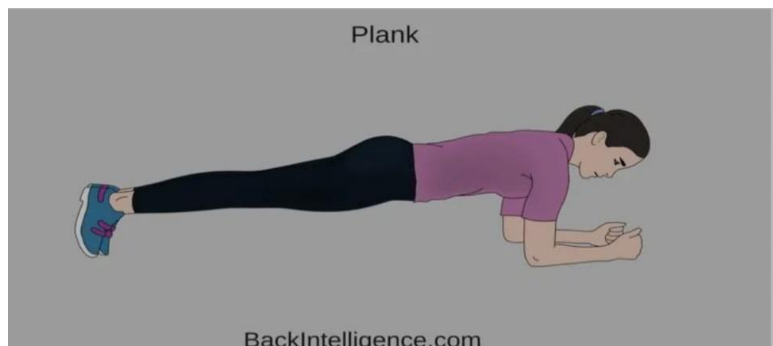
Cat cow:



Bird dog:



Plank:



Surgical treatment for disc protrusion:

Laminectomy / Laminotomy

Discectomy / Microdiscectomy

Artificial Disc Surgery

Spinal fusion

Alternative medication treatment for disc protrusion:

1. Acupuncture: Treatment with non-steroidal anti-inflammatories, epidural injections and painkillers have side effects. These are for long-term use and are costly whereas, the acupuncturist treats the disc bulge by inserting needles into the pressure points to relieve pain. This is cost-effective, sometimes can be time-consuming but you get sure relief. Improvements included pain reductions in increases in range of motion and improved straight leg lift testing. The gate control theory may play role in acupuncture's effectiveness at reducing pain. This theory asserts that pain signals travel slowly from the area of injury to the spinal cord into the brain because the nerves can only handle a limited number of Signals at once. Acupuncture is thought to generate faster signals to crowd out the slow-moving pain signals. Thus blocking out the pain, treatment was provided once daily, for a total of 15 days. Acupuncture may be more effective than conventional care when treating disc bulge.

2. Chiropractic: A common chiropractic technique is the flexion-distraction technique, which can be used to help address herniated disc symptoms. Flexion-distraction involves the use of specialized table that gently "distracts" or stretches the spine. This allows the chiropractor to isolate the affected area while slightly "flexing" the spine using a pumping rhythm. There is usually no pain associated with this treatment. Instead the flexion-distraction techniques gentle pumping to the painful area allows the center of the intervertebral disc (called the nucleus pulposus) to assume its central position in the disc. Flexion distraction may also improve disc height.

This technique can help move the disc away from the nerve, reducing inflammation of the nerve root, and eventually any associated pain and inflammation in the leg (if there is any related to your herniated disc). With flexion distraction, you generally need a series of treatments combined with adjunctive ultrasound muscle stimulation and at-home treatments.

Gradually, specific exercises and nutritional recommendations will be incorporated into your treatment plan.

3. Moxibustion: Moxibustion is a traditional Chinese method that uses the heat generated by burning herbal preparations containing *Artemisia vulgaris* to stimulate acupoints. Moxibustion has anti-inflammatory or immunomodulatory effects against chronic inflammatory conditions in humans. Different moxibustion methods for the treatment of LDH and their mechanism may be due to moxibustion can improve local blood circulation and edema, loosen adhesions, eliminate nerve root inflammation and improve protrusion and nerve root relations or the promotion of nerve injury repair. Moreover, the heat of moxa treatment improves microcirculation in the lumbar vertebra.

Therefore, these arthritis substances may be reduced and weakened by moxibustion, especially for acute LDH, moxibustion may have a good effect. Severe low back pain with leg pain may be caused by a herniated intervertebral disc exerting pressure on the nerve root in this stage. Nerve root inflammation and the surrounding edema aggravate the pain. The role of moxibustion may manage the pathological process.

4. Oxygen Ozone Therapy: O₂-O₃ chemonucleolysis is a well-known effective treatment for pain caused by low back pain with sciatica or cruralgia due to nerve root compression with bulging or herniated discs. The most widely used therapeutic combination is the intradiscal injection of an O₂-O₃ injection mixture, followed by periradicular injection of O₂-O₃ steroid and local anesthetics to enhance the anti-inflammatory and analgesic effects. Many studies have reported on the therapeutic effects of O₂-O₃ administration. In the case of nerve root Compression, the treatment has led to dehydration of the bulging or herniated disc tissue with attenuation or disappearance of nerve root compression, an anti-inflammatory effect enhanced tissue oxygenation and oxidation of algogenic substances.

The associated periganglionic administration of corticosteroids enhances the anti-inflammatory effect of the ozone injection. The treatment offers numerous advantages in being fast, low cost and effective in 70-90% of cases in different series. Adverse effects or complications have been estimated at less than 0.1% and the procedure does not preclude subsequent surgery if required.

Nutrition for disc protrusion patients:

Fish with bones, Oranges, Walnuts, Milk and milk products, Ragi, Eggs, Green and leafy vegetables, Green tea, and Almonds.

Prevention of disc protrusion:

Using proper lifting technique, Don't bend at the waist. Maintaining a healthy weight, Excess weight puts pressure on the lower back. Practicing good posture and stretching. Avoid wearing high-heeled shoes. Exercising regularly Stop smoking.

CONCLUSION:

Disc protrusion is also known as a bulging disc. It affects the intervertebral disc in the spinal column. When the nucleus presses against the outer ring, the spinal disc begins to bulge into the spine. When a disc "bulges" parts of its tough outer wall can protrude into the spinal canal and press on a nerve, which causes pain. If the protrusion occurs for a long period, it can permanently damage the nerves of the spine. Disc protrusion can be treated either by surgical or nonsurgical methods. Surgical methods of treatment may cause many side effects. The nonsurgical methods like exercises, medications, nutritious diet, and alternative systems of treatment may help to produce better tolerance and relief from pain and nerve damage.

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