

## Sciatica Reporting in Patients with Low Back Pain: A Rare Case Report in Tertiary Care Teaching Hospital

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**Abstract:** Sciatica is a common problem and defined as pain along the course of the sciatic nerve or its branches and is usually caused by a herniated disc or spinal stenosis. Inter-vertebral disc herniation is the most common cause, even in children. Therefore, other causes of sciatic nerve compression, such as infection, tumours, degenerative spine diseases and pelvic pathology may be easily misdiagnosed. Due to its long path, the sciatic nerve can be compressed in different anatomical areas and by several factors. A rare case of sciatica, in an active young man, due to sciatic nerve pressure by pelvic heterotopic ossification (HO) is reported. The subject is a 55-year-old woman presented with low back pain of acute onset that was complicated by pain radiating down his left leg since 4 months. Pain lessened with rest and short periods of stretching. The patient had no history of medical problems including symptoms of back pain. Epidural injection of corticosteroids produces short term relief; adverse effects are few and not usually serious. Patients require an individualized approach using best evidence and the application of clinical art and expertise.

**Keywords:** Sciatica, Herniated disc, Spinal stenosis, Inter-vertebral disc, Pelvic pathology, Corticosteroids.

### INTRODUCTION

Sciatica refers to pain that radiates sideways the path of the sciatic nerve which branches from your lower back through your hips and buttocks and down each leg. Typically, sciatica affects only one side of your body [1].

Sciatica most commonly occurs when a herniated disk or a bonespur on the spine compresses part of the nerve. Epidemiology depending on how it is defined, 1.6% to 43% of people have sciatica [2]. This causes inflammation, pain and often some numbness in the affected leg.

Although the pain associated with sciatica can be severe, maximum cases resolve with just conservative treatments in a few weeks. People who continue to have severe sciatica after six weeks of treatment might be helped by surgery to relieve the pressure on the nerve [1].

### CASE REPORT

A 55-year-old woman presented with low back pain of acute onset that was complicated by pain radiating down his left leg since 4 months. Pain lessened with rest and short periods of stretching. The patient had no history of medical problems including symptoms of back pain. Epidural injection of

corticosteroids produces short term relief; adverse effects are few and not usually serious.

### DISCUSSION

The term sciatica describes a symptom rather than a specific disease. Some use it to mean any pain starting in the lower back and going down the leg. Others use the term more specifically to mean a nerve dysfunction caused by compression of one or more lumbar or sacral nerve roots from a spinal disc herniation. Pain typically occurs in the spreading of a dermatome and goes below the knee to the foot. It may be associated with neurological dysfunction, such as weakness [2]. The pain is characteristically of shooting type, fast traveling along the course of the nerve [3]. The various causes include:

#### Spinal disc herniation

Spinal disc herniation pressing on one of the lumbar or sacral nerve roots is the primary cause of sciatica, being present in about 90% of cases [2].

Sciatica caused by pressure from a disc herniation and swelling of surrounding tissue can spontaneously subside if the tear in the disc heals and the pulposus extrusion and inflammation cease.

### Spinal stenosis

Other compressive spinal causes include lumbar spinal stenosis, a condition in which the spinal canal (the spaces the spinal cord runs through) narrows and compresses the spinal cord, caudaequina, or sciatic nerve roots. This narrowing can be caused by bone spurs, spondylolisthesis, inflammation, or herniated disc, which decreases available space for the spinal cord, thus pinching and irritating nerves from the spinal cord that travel to the sciatic nerves.

### Piriformis syndrome

Piriformis syndrome is a controversial condition that, depending on the analysis, varies from a "very rare" cause to contributing to up to 8% of low back or buttock pain. In 15% of the population, the sciatic nerve runs through, or under the piriformis muscle rather than beneath it. When the muscle shortens or spasms due to trauma or overuse, it's posited that this causes compression of the sciatic nerve [4].

It has colloquially been referred to as "wallet sciatica" since a wallet carried in a rear hip pocket compresses the buttock muscles and sciatic nerve when the bearer sits down. Piriformis syndrome cause sciatica when the nerve root is normal [5, 6].

### Pregnancy

Sciatica may also occur during pregnancy as a result of the weight of the fetus pressing on the sciatic nerve during sitting or during leg spasms. While most cases do not directly harm the fetus or the mother, indirect harm may come from the numbing effect on the legs, which can cause loss of balance and falling. There is no standard treatment for pregnancy induced sciatica [7].

### Management

When the cause of sciatica is lumbar disc herniation, most cases resolve spontaneously over weeks to months [8]. Initially treatment in the first 6–8 weeks should be conservative [2]. There does not appear to be a significant difference in outcomes between advices to stay active and recommendations of bed rest [9]. Similarly, physical therapy (exercises) has not been found better than bed rest [16].

### Medication

Although medicines are commonly prescribed for the treatment of sciatica, evidence for analgesics is poor. Specifically, NSAIDs do not appear to improve immediate pain and all NSAIDs appear about equivalent [11].

Evidence is also lacking in use of opioids and muscle relaxants. In those with sciatica due to piriformis syndrome, botulism toxin injections may improve pain and or function.

### Surgery

Surgery for unilateral sciatica involves the removal of part of the disc, known as a discectomy. While it results in short term benefits, long term benefits appear equivalent to conservative care [2, 12]. Treatment of the underlying cause of the compression is needed in cases of epidural abscess, epidural tumors, and caudaequina syndrome.

### Epidurals

Good quality of evidence to suggest short-term pain reduction with epidural steroid injections, long-term benefit is controversial. Other agents, ex: TNF inhibitors have not shown efficacy in most randomized controlled trials.

### Alternative medicine

Moderate quality evidence suggests that spinal manipulation is an effective treatment for acute sciatica. For chronic sciatica the evidence is poor [13]. Spinal manipulation has been found generally safe for the treatment of disc-related pain; however, case reports have found an association with caudaequina syndrome and it is contraindicated when there are progressive neurological deficits [14].

### CONCLUSION

This case report which may result from anatomical variations or traumas, may become quite complex and is often confused with spinal radiculopathies and spinal degenerative disorders. Effective results can be achieved using less invasive therapeutic methods with early diagnosis. Keeping in PS for evaluation of the common complaint of low back pain and reaching an early diagnosis are very important for both physicians and patients. To highlights the proper evidence of medicine is necessary for patient treatment. Good quality of evidence to suggest short-term pain reduction with epidural steroid injections, long-term benefit is controversial. Clinical Pharmacist is main role in this case report to monitor and reduce the contraindication of drug and adverse drug reactions of drug. Patients require an individualized approach using best evidence and the application of clinical art and expertise.

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