

A Case Report on Radiating Low Back Pain and Space-occupying Lesion

Jeshnu P Tople¹, Gautam Das², Suspa Das³

ABSTRACT

Radiating low back pain along the sciatic nerve or along L5 and/or S1 dermatome is common in clinical practice. Intraspinal pathologies are the common causes for such symptoms and, hence, are primarily considered during evaluation of patient with radiating low back pain. However, one must be aware of extraspinal pathologies that can lead to radiating pain to lower extremities. This case of space occupying lesion of gluteal region highlights the need for detailed, meticulous, and unbiased evaluation even in an apparently straight forward case so that an unusual clinical finding should not get missed.

Keywords: Gluteal mass, Lumbosacral radiculopathy, Radiating low back pain, Space-occupying lesion.

Journal on Recent Advances in Pain (2019): 10.5005/jp-journals-10046-0126

INTRODUCTION

Low back pain is one of the most common ailments. Lifetime prevalence of low back pain has been reported to be as high as 84%.¹ Low back pain radiating down the lower limb for which patients seek medical advice is not uncommon. The incidence and the prevalence of the patients with radiating low back pain vary with the study population and study design.²⁻⁴ Of these two, the radiating low back pain is more troublesome and can have serious consequences if not evaluated and treated appropriately. We report a case of radiating low back pain due to space occupying lesion in the gluteal region.

CASE DESCRIPTION

A 75-year-old lady presented with low back pain and buttock pain since about 6 months. Pain was radiating to the left lower limb along posterolateral aspect of the thigh and the leg up to dorsum of the foot. This was associated with weakness of the toes of the left foot and burning sensation. Burning sensation was more on standing and walking. The symptoms started with weakness and sensory loss of the left great toe which were gradually progressing. The patient had a history of fall in the bathroom due to slipping of the leg about 2 months back and with this, symptoms were aggravated. The bowel and bladder habits were normal. Before coming to us, the patient had consulted other doctors a couple of times and was advised magnetic resonance imaging (MRI) of the lumbosacral spine which suggested of mild disc bulge at the L4–5 intervertebral level. She was started on tablet Pregabalin 50 mg BD since last 2 months, but had no improvement of symptoms. She is a known case of hypertension since 6 years and the blood pressure was within normal limits on antihypertensive medicines. She had a history of surgery for excision of mass over the right medial aspect of the thigh 20 years back.

On examination, the pain score on the numerical rating scale was 6 at the time of examination, with the minimum and the maximum score being 3 and 8, respectively. The pain detect tool score was 20 which suggested the neuropathic pain. On inspection, there was no scar, skin discoloration, muscle wasting, or involuntary movements or tremors. On assessing the range of movements, forward bending was painful. The patient could not do toe walking on the left side. On palpation, there was a hard mass over the left buttock with

^{1,2}Department of Pain Medicine, Daradia Pain Clinic, Kolkata, West Bengal, India

³Department of Interventional Pain, Daradia Pain Clinic, Kolkata, West Bengal, India

Corresponding Author: Jeshnu P Tople, Department of Pain, Daradia Pain Clinic, Kolkata, West Bengal, India, Phone: +91 9990093497, e-mail: jeshnu@gmail.com

How to cite this article: Tople JP, Das G, *et al.* A Case Report on Radiating Low Back Pain and Space-occupying Lesion. *J Recent Adv Pain* 2019;5(1):27–28.

Source of support: Nil

Conflict of interest: None

well-defined margins and the mass was freely movable; muscle tone was normal and no clonus. The straight leg raising test was positive at 45° on the left side. The patient had reduced sensation to touch by 80% over the left L5 dermatome and by 50% over the left S1 dermatome compared to the right side. Vibratory sensations were equal on both sides. The power of the left extensor hallucis longus was 1/5, the left flexor hallucis longus was 3/5, the left ankle inversion was 2/5, and the left ankle eversion was 3/5. Reflexes were normal.

With this history and examination findings, our provisional diagnosis was left sciatic nerve compression by space-occupying lesion.

We did screening ultrasound at our clinic which suggested solid lesion in the planes of gluteal muscles (Fig. 1). We advised contrast-enhanced computed tomography (CECT) scan of the pelvis and the buttock. We prescribed Nortriptyline 10 mg BD and Pregabalin 75 mg BD. CECT scan was received after 3 days which was suggestive of heterogeneously enhancing soft tissue density space occupying lesion with internal necrosis noted at intermuscular aspect of the left gluteal region measuring approximately 82 mm (AP) × 110 mm (ML) × 108 mm (SI). No underlying bony erosion noted (Fig. 2). After this, we referred the patient to a surgeon for further management.

DISCUSSION

Radiating low back pain along the sciatic nerve or along L5 and/or S1 dermatome is common in clinical practice. Most of these patients



Fig. 1: Ultrasonography screening showing solid lesion in the planes of gluteal muscles



Fig. 2: CT scan showing heterogeneously enhancing soft tissue density space-occupying lesion with internal necrosis noted at intermuscular aspect of the left gluteal region

are primarily attributed to spinal pathologies and, among them, most commonly to the prolapsed intervertebral disk. In about 90% of cases, sciatica is caused by a herniated disk with nerve root compression, but lumbar stenoses and (less often) tumors are possible causes.⁵ So intraspinal pathologies are primarily considered during the evaluation of dermatomally radiating low back pain. Hence, it is not unusual that one may miss the extraspinal pathology leading to such symptoms. One must be aware of extraspinal pathologies that can lead to radiating pain to lower extremities, though they are not as common as spinal pathologies. These may include the following:^{6,7}

- Infective causes—abscess such as psoas abscess, pelvic abscess, tubo-ovarian abscess.
- Inflammatory causes—sacroilitis.
- Tumors of sciatic nerve—schwannoma, neurofibromatosis, and malignant neurofibrosarcoma.
- Tumors causing compression or invasion of sciatic nerve—intra-abdominal or intra-pelvic benign or malignant masses, primary (benign or malignant) or secondary tumors originating from neighboring soft tissues, and osseous structures along the course of the sciatic nerve, lymphoma, and hematoma.

- Tumors causing infiltration of sciatic nerve—endoneural metastasis and lymphoma.
- Vascular causes—aneurysm, arteriovenous malformation, and arteriovenous fistulae.
- Iatrogenic—hip arthroplasty, intramuscular injection into the gluteal region, postradiation therapy, lithotomy position, vaginal delivery causing nerve compression due to fetus' head, and pneumatic thigh tourniquet.
- Injury—fall from height, gunshot wound, laceration, femur fracture, hip dislocation, hip or femur fracture, and arterial bypass surgery.
- Other causes—endometriosis, leiomyoma, adenomyosis, retroverted uterus, endosalpingitis, hematocolpos, piriformis syndrome, pregnancy, radiotherapy, osteoarthritis, myositis ossificans, prolonged sitting or supine positioning without adequate pressure relief, diabetes mellitus, and vasculitis.

With this exhaustive list of uncommon causes of radiating pain to lower limb, it is not surprising one may miss these during evaluation of the patient in a busy outpatient department. This may lead to undiagnosed imaging studies and sometimes even surgery.

This patient before coming to us was diagnosed as prolapsed intervertebral disk and was advised MRI which was suggestive of mild disc bulge at the L4–5 intervertebral disc level. However, on detailed history and examination, we found a space occupying lesion in the left gluteal region which may compress the sciatic nerve along its course in the gluteal region. For this, we did screening ultrasound in our clinic and found solid lesion in the planes of gluteal muscles. This was confirmed by CECT scan.

CONCLUSION

We emphasize that though intra-spinal pathologies are common causes of radiating low back pain, one must also be suspicious of extraspinal causes, particularly if patient is refractory to conservative management. This case highlights the need for detailed, meticulous, and unbiased evaluation even in an apparently straight forward case so that an unusual clinical finding should not get missed. Also this helps for pinpointed diagnostic tests and avoids unnecessary tests, thereby reducing the financial burden on health care facilities.

REFERENCES

1. Violante F, Mattioli S, et al. Low back pain. Handbook of Clinical Neurology, 17th ed., Elsevier; 2015. pp. 397–410. DOI: <https://doi.org/10.1016/B978-0-444-62627-1.00020-2>.
2. Spijker-Huiges A, Groenhouf F, et al. Radiating low back pain in general practice: incidence, prevalence, diagnosis, and long-term clinical course of illness. Scand J Prim Health Care 2015;33(1):27–32. DOI: 10.3109/02813432.2015.1006462.
3. Nachemson A, Waddell G, et al. Epidemiology of neck and low back pain. In: Nachemson A, Jonsson E. ed. Neck and Back Pain: The Scientific Evidence of Causes, Diagnosis and Treatment. Philadelphia: Lippincott, Williams & Wilkins; 2000.
4. Hider SL, Whitehurst DG, et al. Pain location matters: The impact of leg pain on health care use, work disability and quality of life in patients with low back pain. Eur Spine J 2014;24(3):444–451.
5. Koes BW, van Tulder MW, et al. Diagnosis and treatment of sciatica. BMJ 2007;334(7607):1313–1317. DOI: 10.1136/bmj.39223.428495.BE.
6. Ergun T, Lakadamyali H. CT and MRI in the evaluation of extraspinal sciatica. Br J Radiol 2010;83(993):791–803. DOI: 10.1259/bjr/76002141.
7. Mahajan G, Loomba D. Lower extremity pain. In: Fishman SM, Ballantyne JC, et al. ed. Bonica's Management of Pain, 4th ed. Philadelphia: Lippincott Williams & Wilkins; 2010. pp. 1069–1093.