Unusual cause of non-discogenic sciatica: Foraminal lumbar root schwannoma

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Received: 14 December 13  Accepted: 09 June 14  Published: 30 July 14

Abstract

**Background:** Schwannomas are tumors of peripheral nerves that develop from the nerve sheath. Foraminal schwannomas are rare and account for 1-5% of all spinal schwannomas. The lumbosacral root schwannoma is a rare cause of sciatica and may raise confusion in diagnosis with late discovery of the tumor.

**Case Description:** We report the case of a patient 30 years of age with chronic left sciatica in whom lumbosacral magnetic resonance imaging (MRI) revealed a tumor involving the S1 nerve root. The excision of the tumor was simple. Histological examination revealed a benign schwannoma. The evolution was favorable postoperative with no neurological deficit, which confirms the good prognosis of this tumor.

**Conclusion:** Nerve root schwannomas should be considered in the differential diagnosis of sciatica, especially when signs and symptoms of sciatica cannot be simply explained by prolapsed disc syndrome, which can often delay the diagnosis. Through this case presentation, the authors try to discuss the clinical and radiological features of this condition.

**Key Words:** Disc herniation, nerve root, neurilemmomas, schwannoma, sciatica

INTRODUCTION

Schwannomas are benign peripheral nerve sheath tumors arising from Schwann’s cells. They are the most common tumors of the peripheral nerves. Spinal schwannomas are rare and uncommon, comprising approximately 3% of all spinal tumors; the root involvement is rare.[1-3]

Lumbosacral schwannomas might be wrongly misdiagnosed and taken for discogenic pathologies as they can clinically present as a prolapsed intervertebral disc. The authors report a case, emphasizing on the clinical and radiological features of this condition.

CASE REPORT

A 30-year-old male with no previous medical history presented with complaints of radicular pain along the buttock, on the posterior aspect of the thigh lateral to the left foot, along the course of the left sciatic nerve of 4 months duration. Except for a restricted left-sided straight leg raise test, the neurological examination showed no abnormality. Radiographs of the lumbosacral spine did not reveal any significant changes. A provisional clinical diagnosis of lumbar disc syndrome was made. Patient was started on symptomatic treatment, but reported no relief of his symptoms over a period of
A left L5 laminectomy and left-sided foraminotomy were done to expose the tumor mass. A round mass involving the S1 nerve root in the foraminal region was isolated and extirpated. The tumor was adequately separated from the remaining neural tissue by careful dissection along the capsule; no instrumentation was needed. Histological examination of the excised tissue suggested a benign schwannoma [Figure 3]. Postoperatively, the patient had immediate relief of radicular symptoms and had a pain-free straight leg raise test. He was discharged home without any motor deficit. One-month postoperative MRI showed total resection of the schwannoma [Figure 4].

**DISCUSSION**

This case highlights one of the rare spinal causes of sciatica due to a foraminal lumbar root schwannoma, mimicking a lumbar disc prolapse syndrome. Schwannomas, also known as neurilemmomas, are the most common the peripheral nerve sheath tumors arising from the Schwann’s cells, representing 1-5% of all spinal schwannomas, and are usually seen between 30 and 60 years of age. The isolated form is the most common; however, there can be multiple forms called schwannomatosis which are rare and not necessary correlated with neurofibromatosis type II (NF-2), which demonstrates very precise chromosome alterations. Malignant transformation of benign schwannoma is unusual.\(^1\,^3\,^4\,^6\)
months to a few years, explained by the contusion of the remaining continuous nerve fibers.\(^{[11-13]}\) When deficit signs are present before surgery, their regression or stabilization will depend on the size of the lesion.\(^{[14]}\)

**CONCLUSION**

Schwannoma of the lumbar root is a well-defined tumor and should be sought before any trailing sciatica in a young adult. MRI can suggest the diagnosis. However, the definitive diagnosis remains histological. The prognosis is excellent after a suitable surgical treatment following the nerve fascicles.

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