

Acupuncture Analgesia in a Patient with a Lumbar Spinal Nerve Root Schwannoma – A Case Report

Panagiotis Zogopoulos*, Anastasios Venetikidis, Georgios Vretakos and Dimitrios Rologis

Department of Neurosurgery, Metropolitan Hospital, Athens, Greece

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***Corresponding author:** Panagiotis Zogopoulos, Department of Neurosurgery, Metropolitan Hospital, Athens, Greece, Tel: +30-697-605-3555; E-mail: p.zogopoulos@yahoo.com

Abstract

Acupuncture is a well-established treatment option for patients with acute or chronic pain of various etiologies, including tumours. Spinal tumours, although rare among patients with pain syndromes, should be part of the differential diagnosis. We present an interesting case of acupuncture-induced analgesia in a patient suffering from low back pain and sciatica, due to a lumbar spinal nerve root tumour, who refused to receive surgical treatment

Keywords: Acupuncture; Analgesia; Schwannoma; Lumbar Spine; Conservative Treatment

Introduction

Schwannomas comprise nearly 50% of all intradural spinal tumors, with chronic progressive symptoms as the most common clinical presentation [1]. They are benign tumors arising from nerve roots and based on their location they can take the form of a dumbbell-shaped mass [2]. Large benign schwannomas are rare and despite their size complete surgical excision can be achieved with good postoperative prognosis [3,4]. On the other hand, some extensive surgical approaches for complete removal have been reported to lead to severe complications [5]. Acupuncture has been extensively studied regarding its analgesic effects in numerous pain syndromes. Since it has also been shown to induce analgesia in patients harboring tumors, it should be part of our therapeutic armamentarium in such cases [6-8]. We present the case of an elderly patient suffering from low back pain and sciatica due to a lumbar spinal nerve root schwannoma who received an efficient symptomatic/analgesic treatment with acupuncture.

Case Report

A 78 year-old male presented with a 7-year onset of gradually deteriorating low back pain and left sciatica, unresponsive to simple analgesics (e.g. paracetamol). The pain was nearly constant and exhibited a left L4 nerve root distribution. His medical history included hypertension and atrial fibrillation and he was on an oral anticoagulant. Neurological examination did not reveal lower extremities muscle weakness or atrophy, neither sensory deficits or bladder/bowel dysfunction. Radiological examination with magnetic resonance imaging (MRI) of the lumbar spine revealed a sizable (2.5cm x 2.7cm x 4.2cm), oval-shaped tumor of the left L4-L5 intervertebral foramen. The tumor was heterogeneous and exhibited intense contrast enhancement (Figures 1&2). It expanded the left L4-L5 foramen and caused smooth erosion of the adjacent vertebra (Figure 3). Based on the tumor's radiological characteristics the diagnosis of a left L4 nerve root schwannoma was suggested.

Due to the advanced age of the patient, the lack of any motor or sensory deficit other than pain and his unwillingness to be treated surgically, a conservative symptomatic analgesic treatment

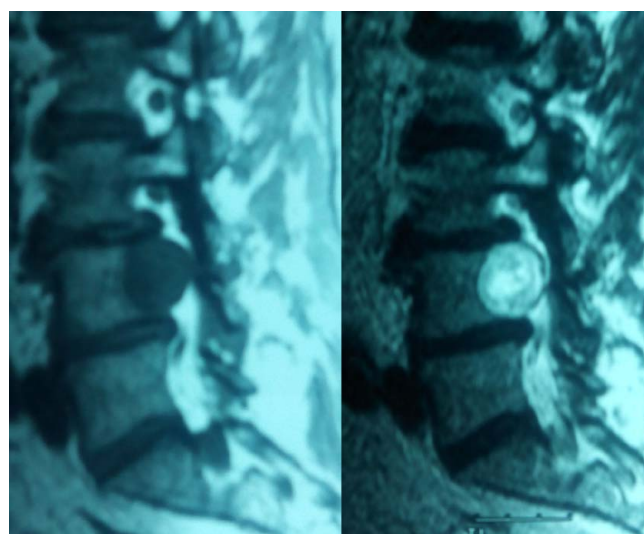


Figure 1: Sagittal T2WI MRI scan of the lumbar spine before and after contrast administration.

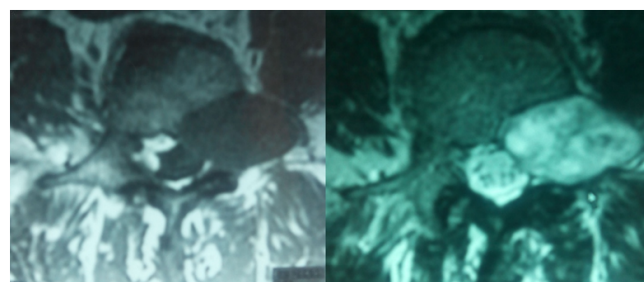


Figure 2: Axial T2WI MRI scan of the lumbar spine before and after contrast administration.

with both body and auricular Western medical acupuncture was initiated. Needles used were 0.30mm (diameter) by 40 mm (length) in the body and 0.25mm (diameter) by 25mm (length) in the ear. Acupuncture points stimulated were bilateral: BL27-BL35, BL57, ST36, SP6 as well as bilateral auricular points Shen Men, Zero and Lumbar Spine point. The points selected were those that corresponded to the anatomic region (dermatome and myotome) of the L4 nerve root schwannoma. Needles were inserted at a depth approximately 1-1½ cun depending on the acupuncture point and each session lasted for 25 minutes. After 8 sessions of acupuncture in a period of 30 days (2 sessions/week), a 70% pain improvement on a visual analog scale (VAS) was reported by the patient and no further treatment was considered necessary. This level of analgesia

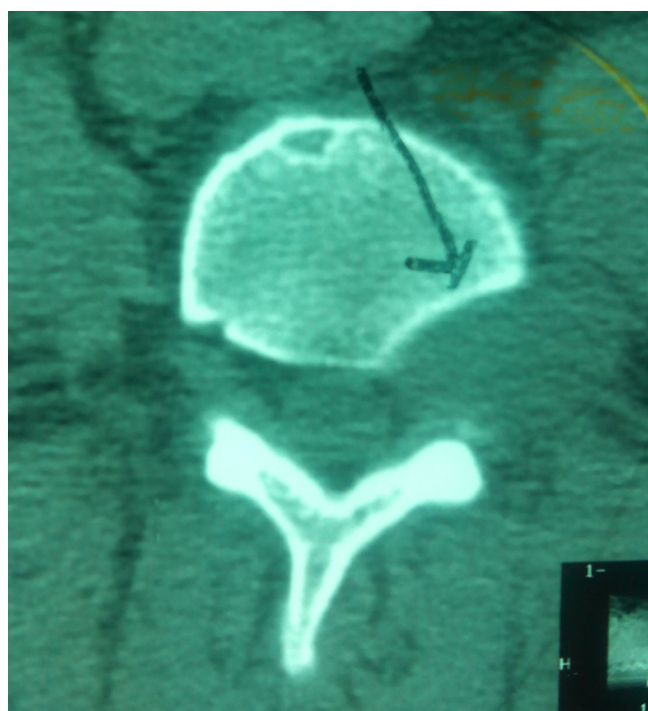


Figure 3: Computerized tomography scan exhibiting bone scalloping of the L4 vertebra.

(expressed again on a visual analog scale) was maintained on 2-year follow up and the patient sought no further treatment.

Discussion

Schwannomas are benign but clinically progressive nerve sheath tumors. Their incidence varies between 0.3-0.4 cases/100,000 persons per year [9]. Since most of schwannomas arise from posterior nerve roots, which transmit sensory fibers, they commonly present with pain and/or dysesthesias and only when they grow large enough do they manifest motor deficits. Their accurate diagnosis is based on pathology and early surgery is recommended for symptomatic patients to avoid neurological deterioration [10]. In the case presented patient's co-

morbidities and his unwillingness to receive surgical treatment rendered acupuncture a rather efficient alternative option for symptomatic long-lasting pain relief. Therefore, acupuncture being a potent analgesic treatment modality, should be included in the armamentarium of physicians treating relevant cases.

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***Corresponding author:** Panagiotis Zogopoulos, Department of Neurosurgery, Metropolitan Hospital, Athens, Greece, Tel: +30-697-605-3555; E-mail: p.zogopoulos@yahoo.com

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