Cirugía y Cirujanos. 2015;83(6):496–500

CIRUGÍA y CIRUJANOS
Órgano de difusión científica de la Academia Mexicana de Cirugía
Fundada en 1933
www.amc.org.mx www.elsevier.es/circir

CLINICAL CASE

Spinal osteochondroma: diagnostic imaging and treatment. Case reports☆

Carla Lisette García-Ramos[a], Martín Buganza-Tepole[b], Claudia Alejandra Obil-Chavarría[a], Alejandro Antonio Reyes-Sánchez[a,*]

[a] *División de Cirugía de Columna Vertebral, Instituto Nacional de Rehabilitación, México, D.F., Mexico*
[b] *División de Ortopedia, Instituto Nacional de Rehabilitación, México, D.F., Mexico*

Received 11 December 2014; accepted 23 March 2015
Available online 15 December 2015

KEYWORDS
Osteochondroma;
Spinal Tumour;
Solitary;
Osteochondroma hereditary multiple;
Exostosis

Abstract
Background: Osteochondromas are benign bony tumours, with only 1–4% being located in the spine. It occurs more frequently in the cervical spine, with C2 being the vertebra most affected. The neurological presentation is slow due to the growth characteristics of the tumour. Computed axial tomography is the reference method for diagnosis. Surgical management is indicated for patients with neurological impairment or pain.
Clinical case: The first case presents a 21-year-old male with osteochondroma located in the spinous processes of L2, L3 and L4. The second case is a 20-year-old female with multiple osteochondromatosis with tumours at the right lateral mass of C1, with extension to C2 and tumours on the spinous processes of C5 and C7. Both patients presented with painful symptoms, which were resolved after surgical resection of the tumours.
Conclusions: The rarity of these conditions, relevance of a clinical-radiographic diagnosis, and considerations required for surgical treatment are discussed here.

PALABRAS CLAVE
Osteocondroma;
Tumor espinal;
Solitario;

Osteocondroma espinal: diagnóstico por imagen y tratamiento. Reporte de casos

Resumen
Antecedentes: Los osteocondromas son tumores óseos benignos, solo el 1 al 4% se localizan en la columna vertebral; se presentan con más frecuencia a nivel cervical, siendo C2 la vértebra más afectada. La presentación neurológica es lenta debido a las características del crecimiento del tumor. La tomografía axial computada es el estudio de elección, para diagnóstico y

☆ Please cite this article as: García-Ramos CL, Buganza-Tepole M, Obil-Chavarría CA, Reyes-Sánchez AA. Osteocondroma espinal: diagnóstico por imagen y tratamiento. Reporte de casos. Cir Cir. 2015;83:496–500.

* Corresponding autor at: Calzada México-Xochimilco 289, Col. Arenal de Guadalupe, Tlalpan, C.P. 14389, México, D.F., Mexico. Tel.: +52 55 5999 1000 ext. 12206 / 12209.
E-mail addresses: alereyes@inr.gob.mx, areyes@vertebrae.com.mx (A.A. Reyes-Sánchez).

Osteocondromatosis múltiple hereditaria; Exostosis

programación quirúrgica. El manejo quirúrgico está indicado para pacientes que presentan deterioro neurológico o dolor.
Casos clínicos: El primer caso se trata de un paciente masculino de 21 años, con diagnóstico de osteocondroma localizado en los procesos espinosos de L2, L3 y L4. En el segundo caso; una paciente femenina con osteocondromatosis múltiple, que presenta tumoraciones a nivel de la masa lateral derecha de C1 con extensión a C2 y procesos espinosos de C5 y C7. Ambos pacientes cursan con sintomatología dolorosa, la cual remite posterior a la resección quirúrgica de los osteocondromas.
Conclusiones: Se realiza un reporte de casos y revisión de la literatura, para ejemplificar los diversos síntomas que causan los osteocondromas espinales. El conocimiento y la sospecha de este tipo de tumores permiten brindar el manejo apropiado; según su localización y sintomatología.

Background

Osteochondromas are benign tumours, and represent 8.5% of all bone tumours and around 36% of benign bone tumours.[1,2] They present as single or multiple lesions; the latter are termed multiple osteochondroma.[3]

The long bones are most affected; only 1–4% of osteochondromas are found in the spinal column.[2–4] They are more common in men with a ratio of 1.5:1; in the second or third decades of life,[5] and the degenerative changes in the spine can contribute to the onset of symptoms.[6,7]

The clinical manifestations vary, the main symptom is pain. Neurological manifestations seldom present, as the lesions generally grow outside the medullary cavity.[3,8,9] Radiculopathy can present acutely, secondary to trauma,[5] or can cause paresthesias, due to the tumour's slow-growth pattern.[10–12]

The most common location of osteochondromas is in the cervical spine, at 50%,[13] chiefly C2,[14–16] followed by C3 and C6.[5,6] The thoracic region is the second most common location, 28% of these lesions.[6,17]

Clinical cases

First case

A 21-year old male patient, presenting with a one-year history of low back pain, classified as 2/10 based on an analogue visual scale, and increased volume at lumbar level. He attended a reference institution for assessment. In his initial assessment, increased volume was found in the lumbar region at L2 level, immobile, adhered to the deep planes, with mild pain on palpation only, and no changes to the overlying skin.

Neurologically, both pelvic extremities had sensitivity 2/2, and muscle strength 5/5, normo-reflective, no pathological reflexes evoked, and no signs of neurotension. The anteroposterior and lateral radiographic views of the lumbosacral spine showed a radio-opaque, pedunculated tumour, next to vertebral bodies L3 and L4 and the spinous process of L2 (Fig. 1). The following were considered as differential diagnoses: chondrosarcoma, osteoblastoma, and connective tissue disorders, such as dermatomyositis of heterotopic ossification. The radiographs were complemented

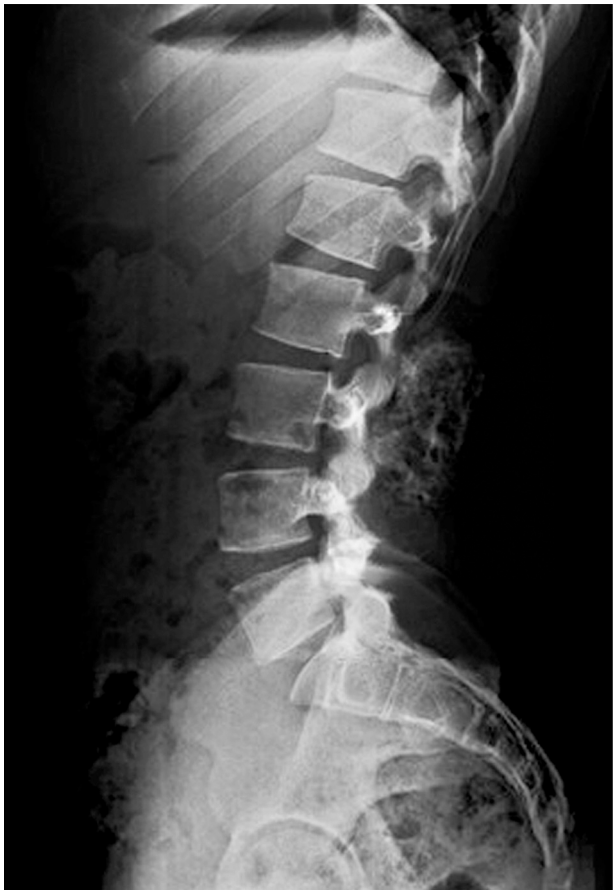

Figure 1 Lateral radiography of the lumbosacral column, showing a tumour of approximately 7 cm.