

Benign fibrous histiocytoma of the lumbar spine

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SUMMARY

Context: Benign intraosseous fibrous histiocytoma is a rare neoplasia, characterized by fibroblastic and collagenous fiber proliferation.

Pain in the lumbar region is a frequent complaint in many patients, but most of times it is associated to muscular or degenerative causes.

Case Report: Here we report a case of a patient diagnosed with benign bone fibrous histiocytoma in the lumbar spine who

complained of lumbar pain dating five months prior to diagnosis.

The patient was submitted to open transpedicular biopsy in the fourth lumbar vertebra, and subsequently, lesion curettage was performed via anterior retroperitoneal and L3-L5 vertebral arthrodesis using a fibular graft.

Conclusion: Although rare, benign intraosseous fibrous histiocytoma should be taken into consideration when a primary lesion is observed in the spine.

Keywords: Fibrous histiocytoma, lumbar pain, Spine.

INTRODUCTION

An 85 year-old, female patient, complaining of lumbar pain dating November 1997, obtaining health care in our medical service in April 1998.

Physical examination revealed pain at motion and at percussion on lumbar spine without changes in the neurological status.

Radiographic examination suggested a lithic lesion on the fourth lumbar vertebra (Figures 1 and 2), which was corroborated by computed tomography and magnetic nuclear resonance (Figures 3 and 4).

The patient was submitted to a transpedicular open biopsy on the fourth lumbar vertebra showing a whitish-colored material and little friable, which was demonstrated by anatomicopathological examination as a benign fibrous histiocytoma of the bone.

Curettage of vertebral lesion was performed through retroperitoneal anterior access and arthrodesis between L3-L5 with fibular graft (Figures 5 and 6).

The patient was discharged from hospital without any postoperative complications, but, one year later, she passed away due to a cardiovascular complication.

DISCUSSION

Benign primary tumors of the spine are not as frequent as metastatic lesions⁽¹⁾. Among them, we can highlight the osteoblastoma, the osteoid osteoma, giant-cells tumor, and the aneurysmatic osseous cyst as those mostly affecting the spine⁽¹⁾.

The most common complaint of a patient with vertebral neoplasia is pain, which can be accompanied by a neurological condition or not, because of the invasion on the vertebral duct. Here, the benign fibrous histiocytoma of the bone is included, which is a rare tumor of the spine in which the most common symptom is pain, and where a deformity can exist as a result of the antalgic behavior⁽²⁾.

From a diagnostic point of view, fibrous histiocytoma of the bone is not always characterized by a lesion that is easily noticeable at simple X-ray, to which osseous scintiscan and magnetic nuclear resonance imaging are crucial⁽²⁾. It usually appears as an osteolytic lesion, precisely bordered, sometimes surrounded by reactive osseous sclerosis, sometimes being able to disrupt the bone cortical, not invading adjacent soft parts⁽³⁾.

Such tumor is more often found at diaphysis and epiphysis of long bones⁽³⁾. In the spine, three cases of benign fibrous his-

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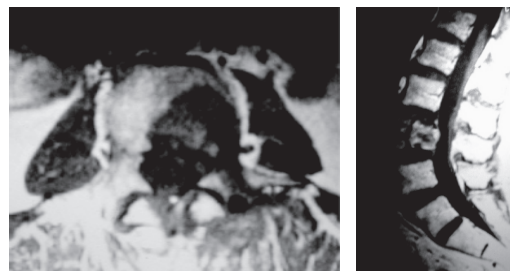
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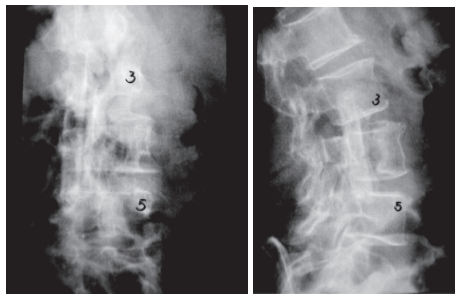
Figure 1 - Baseline frontal radiograph shows no evidences of skeletal changes.



Figure 2 - Close observation of the lateral radiograph shows a lesion on the posterior portion of the vertebra with well-marked borders.



Figures 3 and 4 - Magnetic nuclear resonance, in turn, clearly shows the tumor.



Figures 5 and 6 - Postoperative radiographs show arthrodesis with the use of anterior fibula after tumor resection.

tiocytoma are referred to in literature in male patients aged 18, 24 and 28 years old respectively, in whom tumor site was at the spinous processes of the second and sixth cervical vertebrae⁽⁴⁾.

At the anatomicopathological examination, a soft mass is macroscopically seen, notably contrasting with remaining osseous structure and the yellowish color provided by the abundance of lipid-retentive cells⁽³⁾.

Microscopic examination evidences a neoplastic growth characterized by fibroblast proliferation and collagen fibers arranged in crossed-over bundles or vortex patterns, the so-called vortical aspect, typical of fibrous histiocytous proliferation, with bundles of balloon-shaped histiocytous cells due to the lipid over-

load, particularly cholesterol esters, also referred to as xanthomatous cells⁽³⁾.

Regarding the differential diagnosis, there are cases in which the histological appearance is undistinguishable from giant-cell tumor, especially when located at long bones' epiphysis⁽³⁾.

Treatment of choice should be curettage with graft insertion or surgical resection of the tumor when located in bones such as the ribs or fibula.

In our patient, lesion curettage was performed with fibular bone graft insertion, progressing to integration.

This case intends to remind that the theory of benign primary lesion presenting the features described here can encompass a rare pathology of the spine, i.e., the benign fibrous histiocytoma of the bone.

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