

Acute Schmorl's Node Mimicking Spine Metastasis

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Received: December 01, 2023; Published: January 11, 2024

Abstract

We present a case of a 64-year-old patient treated for breast cancer who complained of chronic lower back pain in whom MRI exploration revealed the presence of schmorls nodes mimicking vertebral metastases.

Keywords: Schmorl's Nodes; MRI; Nucleus Pulposus

Clinical Medical Image



Figure: (A) T2 sagittal image of the lumbar spine showing a large schmorl node through the inferior endplate of D12 (Yellow arrow). (B) T1 sagittal image of the lumbar spine showing a large schmorl node through the inferior endplate of D12. (C) Sagittal T1-Weighted images with Fat saturation demonstrate the enhancement of the node.

Comment

We report the case of a 64-year-old female patient who had been complaining for 4 weeks of lower back pain resistant to usual analgesic treatments. In her history we note diabetes, arterial hypertension and left breast cancer treated with chemotherapy and radiotherapy 1 year ago. The MRI showed an appearance of schmorl nodules mimicking vertebral metastases.

Schmorl's nodes (SN) also known as "intraosseous disc herniations" are the vertical extension of nucleus pulposus through the weakened cartilaginous and bony adjacent vertebral endplate, primary described in 1927 by the pathologist Christian Georg Schmorl as a specific type of vertebral lesion, seen primarily in the thoracolumbar spine [1].

The pathogenesis of SNs is still unclear, there are a number of theories that attempt to explain their development: such as abnormal vascular development, ischemic necrosis, trauma, disc degeneration, autoimmune involvement, metabolic, neoplastic and infection processes [2].

These nodes are generally asymptomatic and usually found incidentally during imaging studies for degenerative disorders or traumatic conditions of the lumbar spine. However, these lesions may be symptomatic with clinical issues described as sudden localised pain attributed to acute SN formations.

On CT or plain film, mostly detected in the later stage, SNs are typically seen as radiolucent nodular lesions of varying size inside the vertebral body at the end plate often with a thin rim of sclerosis. However, in the acute stage these lesions are difficult to diagnose because sclerosis around the margin of herniation had not time to develop. In result, MRI remains the best tool imaging that helps to detect the endplate lesion and study the continuity of the nodule with parent disc, these lesions appear on T1-hypointense and T2-hyperintense signals in the adjacent cortex indicate the presence of inflammation and edema. It may also have a peripherally enhance with gadolinium administration suggesting neovascularisation which simulate a metastasis especially in cancer context.

Conclusion

Acute SNs have always increased uptake in bone scan and are difficult to distinguish to other differential diagnosis (metastasis, discitis and acute compression fracture).

As a treatment, SN don't require any specific cure, only the management of pain in symptomatic cases.

Conflict of Interest

Declare if any financial interest or any conflict of interest exists.

Bibliography

1. Allyson Pietrok., *et al.* "Schmorl's node: An uncommon case of back pain and radiculopathy". *Orthopedic Reviews (Pavia)* 14.3 (2022): 33641.
2. Elisenda Grivé., *et al.* "Radiologic findings in two cases of acute schmorl's nodes". *American Journal of Neuroradiology* 20.9 (1999): 1717-1721.
3. Konstantinos N Paterakis., *et al.* "Acute Schmorl's Node during Strenuous Monofin Swimming: A Case Report and Review of the Literature". *Global Spine Journal* 2.3 (2012): 159-168.

Volume 16 Issue 1 January 2024

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