Bamboo spine: Ankylosing spondylitis

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ABSTRACT

Introduction: Spinal involvement is common in ankylosing spondylitis, evolving from simple erosions to the “bamboo spine” appearance. Case Report: We report the case of a 48-year-old woman who accused a chronic spinal and sacroiliac pain and benefited from a computed tomography (CT) scan that revealed a bamboo spine appearance that is typical of ankylosing spondylitis. Conclusion: The bamboo spine is a typical late sign of ankylosing spondylitis that involves vertebral junctions and predisposes to serious complications.

Keywords: Ankylosing spondylitis, Bamboo, Spine

INTRODUCTION

Ankylosing spondylitis is a chronic inflammatory disease of the column and the sacroiliac joints, with possible involvement in large and small joints. This pathological entity associates frequently other attacks, such as uveitis, psoriasis, inflammatory bowel disease, cardiovascular and lung disease. HLA-B27 is strongly linked to tissue susceptibility and detected in the blood of most patients with ankylosing spondylitis.

Spinal involvement is common in ankylosing spondylitis, evolving from simple erosions at the corners of vertebral bodies, to diffuse syndesmophytes and ankylosis giving the bamboo spine appearance [1, 2].

CASE REPORT

We report the case of a 48-year-old woman, followed for Crohn’s disease under treatment, who accuses a chronic spinal and sacroiliac pain.

Clinical examination showed a spinal stiffness predominant at the lumbar spine. Computed tomography scan has been required that showed syndesmophytes and ankylosis in thoracic and lumbar spine responsible for the fusion of vertebral bodies and the realization of “bamboo spine” appearance (Figures 1–3).

DISCUSSION

The bamboo spine appearance is a radiological sign of spinal ankylosis, which corresponds to the fusion of the vertebral bodies by marginal syndesmophytes. This sign can be objectified on conventional radiography as on the scanner and is frequently accompanied by a fusion of the posterior vertebral elements.

Ankylosis in a bamboo column results from the staged ossification of the external fibers of the annulus fibrosus of the intervertebral discs, this conduct to marginal syndesmophytes are formed connecting the vertebral bodies, these preferentially touch the thoracolumbar stage and/or the lumbosacral junction, and expose to unstable fractures and disc damage of Andersson [1–3].

Spinal ankylosis was initially described by Pierre Marie and Ernst Adolf Gustav Gottfried von Strumpell...
under the term “rigid as a stick” which was later simplified into “bamboo column.” It represents a major sign of ankylosing spondylarthitis (or Marie–Strumpell’s disease) objectified in the advanced stages of the disease [2, 4, 5].

In imaging, ankylosing spondylitis initially manifests itself by the association of a lysis of the anterior part of the vertebral corners surrounded by a peripheral reactive sclerosis realizing the aspect of “shiny corner sign,” thereafter there will be the formation of lateral and anterior syndesmophytes connecting the vertebral bodies, all of these signs give the appearance of continuous wavy edges of the vertebrae [2, 5], hence the name “bamboo column” or “bamboo spine” (Figures 1–3).

CONCLUSION

The bamboo spine is a typical late sign of ankylosing spondylitis that involves usually the dorsal and/or lumbosacral junctions and predisposes to serious complications as unstable vertebral fractures and Andersson lesions.
REFERENCES


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Author Contributions

Echchikhi Meryem – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

El Bakkari Asaad – Conception of the work, Design of the work, Acquisition of data, Analysis of data, Interpretation of data, Drafting the work, Revising the work critically for important intellectual content, Final approval of the version to be published, Agree to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved

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Authors declare no conflict of interest.

Data Availability

All relevant data are within the paper and its Supporting Information files.

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