

CLINICAL IMAGE

Osteolysis and Diffuse Pain Revealing Vitamin D Deficiency

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ABSTRACT

In the presence of osteoarticular pain and multiple osteolysis, it is important not to forget to measure 25-OH-vitamin D3. We report a clinical image of multiple lytic bone lesions, suggesting malignancy but ultimately diagnosed as vitamin D deficiency.

KEYWORDS

25-OH-vitamin D3; Bone lesion; Osteolytic; Vitamin D deficiency

OBSERVATION

A 23-year-old man reported osteoarticular inflammatory pain that had been evolving for four months, involving the extremities and the spine. He presented with altered general condition and had no bone deformity or neurological deficit. The biology revealed an elevated serum calcium level and normal serum protein electrophoresis. The bone marrow cytology was normal. All tumor markers were negative. Cerebral and thoracic-abdominal-pelvic CT scans showed diffuse lytic bone lesions without primary tumor lesions (Figure 1). X-ray of the extremities and pelvis showed lytic bone lesions. Serum 25-OH-vitamin D3 level was 10 ng/mL. The diagnosis of severe vitamin D deficiency was accepted.

DISCUSSION AND CONCLUSION

The discovery of radiographic bone anomalies is frequent. Multiple lytic bone lesions, axial and peripheral, without associated visceral lesions suggest tumor causes [1]. Our initial hypotheses were multiple myeloma and bone metastases. Vitamin D testing was only performed at a later stage. Vitamin D deficiency is defined as a serum 25-OH-vitamin D3 level below 20 ng/mL [2]. It can be responsible for bone pain, muscle weakness and

fractures. It is one of the causes of lytic bone lesions [2,3]. Vitamin D deficiency should always be considered in the presence of diffuse osteolytic lesions without visceral lesions.

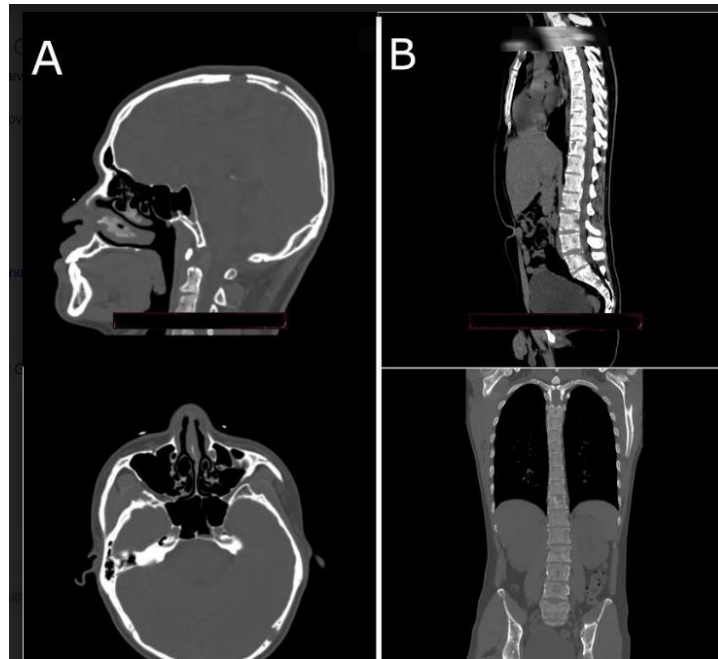


Figure 1: Cerebral and thoraco-abdomino-pelvic CT scans without injection.
(A) Bone demineralization of the cranial vault with scattered holes.
(B) Diffuse osteolysis of the spine.

AVAILABILITY OF DATA

No other data were used in this article.

CONFLICT OF INTEREST

No conflict of interest between co-authors.

FUNDING

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CONSENT

Written informed consent was obtained for the publication of the observation.

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