

Case Report

Imaging findings of cryptococcal infection of the thoracic spine

Chenguang Wang^{a,1}, Ningyang Jia^{b,1}, Ling Zhang^{c,*}, Kai Liu^a, Huimin Liu^d, Hongyu Yu^d^a Department of Radiology, Shanghai Changzhen Hospital, Second Military Medical University, Shanghai, China^b Department of Radiology, Shanghai Eastern Hepatobiliary Surgery Hospital, Second Military Medical University, Shanghai, China^c Department of Radiology, Nanfang Hospital, Southern Medical University, Guangzhou 510515, China^d Department of Pathology, Shanghai Changzhen Hospital, Second Military Medical University, Shanghai, China

ARTICLE INFO

Article history:

Received 18 April 2014

Received in revised form 30 June 2014

Accepted 16 July 2014

Corresponding Editor: Eskild Petersen, Aarhus, Denmark

Keywords:

Cryptococcosis

Infection

Thoracic spine

SUMMARY

Cryptococcosis with thoracic spine involvement is extremely rare, with most cases occurring in immunosuppressed patients. We report a case of cryptococcosis of the thoracic vertebrae confirmed by histopathology. The immunocompetence of the patient is a most interesting feature of this case. Laboratory investigations were normal, but the erythrocyte sedimentation rate was raised. A computed tomography scan showed an eccentric lytic lesion with a clear boundary at T2–T3. Magnetic resonance imaging showed the endplates of the T2 and T3 vertebral bodies to be involved, but without significant loss of the intervertebral disk height. A prespinal and large paraspinous soft tissue component was spreading along T1–T4, and the pleura and dural sac at the level of T2–T3 had thickened abnormally. ¹⁸F-fluorodeoxyglucose positron emission tomography/computed tomography showed abnormal uptake in the lesion. The above-mentioned clinical and imaging information will help improve our understanding of this rare disease.

© 2014 Published by Elsevier Ltd on behalf of International Society for Infectious Diseases. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

1. Introduction

Cryptococcosis with bone involvement is uncommon, comprising only 5% of all cryptococcal infections.¹ Radiological findings of cryptococcal bone lesions are non-specific. We report a case of cryptococcosis of the thoracic vertebrae in an immunocompetent patient with complete imaging data in order to raise general awareness about cryptococcosis of the spine.

2. Case report

A 67-year-old woman presented with a 4-month history of progressive back pain and occasional pain radiating bilaterally to the shoulders and chest, without fever, night sweats, cough, or headache. She had no medical history of diabetes, tuberculosis, sarcoidosis, leukemia, lymphoma, AIDS, or Hodgkin's disease. Her erythrocyte sedimentation rate (ESR) was 80 mm/1st h (normal 0–20 mm/1st h), and her C-reactive protein (CRP) level was 24.43 mg/l (normal 0–5.0 mg/l). A preoperative blood count, rate of CD4/CD8 ratio, blood coagulability, liver and renal function, blood

sugar levels, and tumor markers were all normal. Serological tests were negative for HIV. The serum cryptococcal antigen was positive.

A transverse computed tomography (CT) scan showed an eccentric lytic lesion with a clear boundary at T2 and T3 (Figure 1). The entire left half of the vertebral body and a portion of the spinal column enclosure were involved. The lesion was well-defined and surrounded by lamellar ossification, and irregular sequestrum could be observed in certain parts. The density of the lesion was uniform and the CT number was 45 Hounsfield units (HU); no calcification or necrosis was observed within it. The cortical area of the vertebral body had been destroyed, and the lesion had extension into the soft tissues. All of these findings are characteristic of a tumor. The endplates of the T2 and T3 vertebral bodies were involved, without significant loss of intervertebral disk height.

A lateral radiograph of the thoracic vertebrae revealed the T2–T3 disk to be normal. A T1-weighted magnetic resonance image (MRI) of the thoracic spine demonstrated a paraspinous soft tissue lesion with vertebral erosion at the level of T2–T3 as an area of diffuse low signal intensity (Figure 2). A T2-weighted MRI showed an area of heterogeneous high signal intensity (Figure 2). A prespinal and large paraspinous soft tissue component was shown to be spreading along T1–T4, and the pleura and dural sac at the level of T2–T3 were involved. A contrast-enhanced fat-suppressed T1-weighted MRI

* Corresponding author. Tel.: +86 2062787331; fax: +86 2163587669.

E-mail address: try_my_best2009@sina.com (L. Zhang).¹ Chenguang Wang and Ningyang Jia equally contribute to this paper

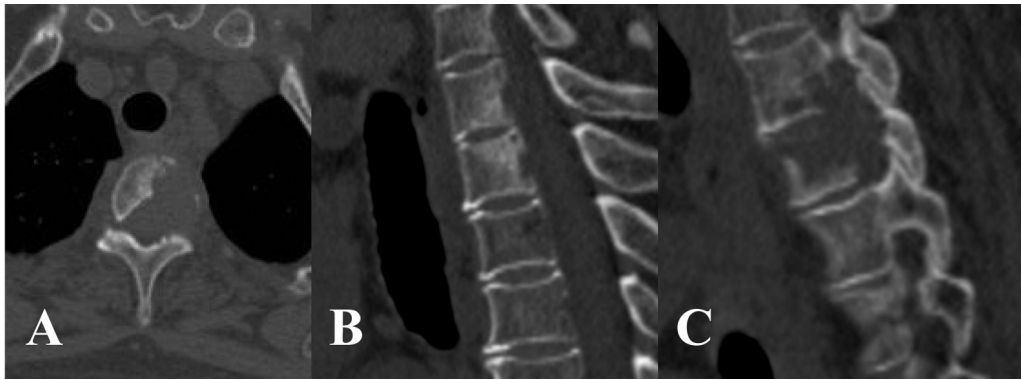


Figure 1. (A) Transverse CT scan of the thoracic spine showing a lytic lesion at vertebra T2. (B) Sclerosis surrounding the lesions at T2 and T3. (C) The endplates of the T2 and T3 vertebral bodies were involved, without significant loss of intervertebral disk height.

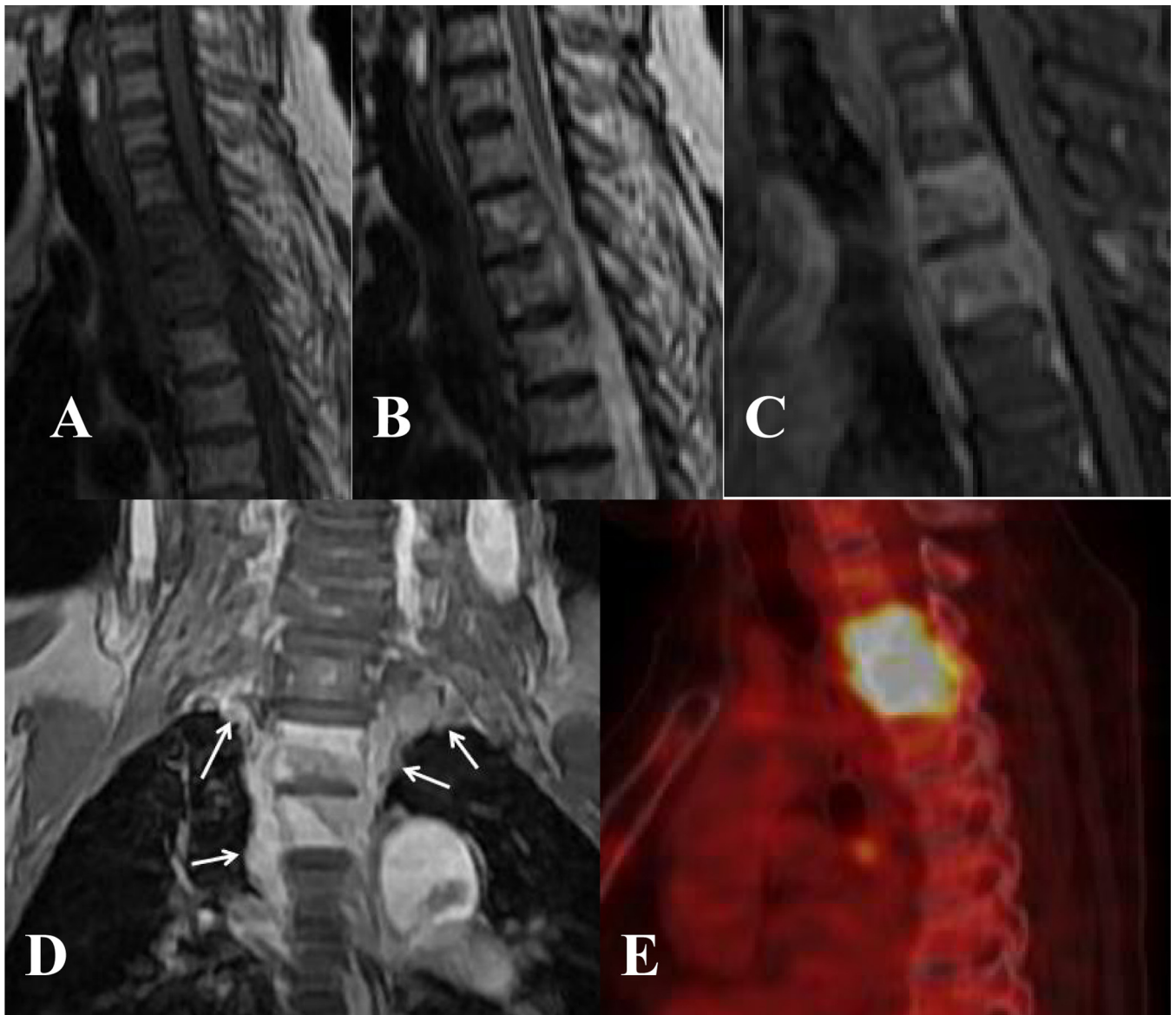


Figure 2. (A) Sagittal T1-weighted image of the thoracic spine showing areas of diffuse low signal intensity in T2 and T3. (B) Sagittal T2-weighted MRI of the thoracic spine revealing a high-intensity zone of edema around the areas of isointensity of T2 and T3. (C) Contrast-enhanced sagittal T1-weighted MRI demonstrating diffuse enhancement of abnormal areas without disk involvement. (D) Coronal contrast-enhanced T1-weighted scan showing the pleura and dural sac, where localized thickening (arrows) suggests an inflammatory process. (E) ^{18}F FDG PET-CT revealing abnormal uptake in the lesion, with the SUV_{max} measured as 14.5.

Download English Version:

<https://daneshyari.com/en/article/3362363>

Download Persian Version:

<https://daneshyari.com/article/3362363>

[Daneshyari.com](https://daneshyari.com)