

## Images in Infectious Diseases

# Vertebral cryptococcosis: An uncommon cause of a paravertebral mass

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A 55-year-old female patient presented to our hospital with a 4-month history of progressive paraparesis. She experienced progressive dyspnea and a 30kg-weight loss during this period but no fever, night sweats, or cough. Physical examination revealed bilateral lower extremity weakness and multiple skin lesions on the face and neck, characterized by umbilicated papules. Chest computed tomography (CT) revealed a paravertebral soft tissue mass with hypodense foci, extending between the T3–T5 vertebrae on the left side. The mass occupied the T3–T4 and T4–T5 neural foramina bilaterally, with spinal cord compression at these levels (**Figure 1A** and **Figure B**). Multiple lytic lesions were noted on the T3–T5 vertebral bodies and pedicles, and posterior costal arches, predominantly on the left side (**Figure 1C** and **Figure D**). Her hemogram revealed lymphopenia (600 lymphocytes/mm<sup>3</sup>). Serological tests were positive for HIV infection; the CD4 count was 40 cells/mm<sup>3</sup>. A CT-guided needle biopsy and India ink staining detected *Cryptococcus neoformans* characterized by multiple, round, thin-walled, encapsulated yeast cells (**Figure 1E**). Culture and latex agglutination test for fungi confirmed the presence of *Cryptococcus*. Biopsy of the skin lesions and cerebrospinal fluid cultures were positive for *C. neoformans*. The patient died 2 months following diagnostic confirmation despite treatment with amphotericin B and fluconazole.

Vertebral involvement in cryptococcal infection is extremely rare. The clinical symptoms and radiological findings of skeletal cryptococcosis are nonspecific. Histopathology and detection of fungi in the lesions confirm the diagnosis<sup>1-3</sup>.

### AUTHORS' CONTRIBUTION

IB, MMB, RSR, EM took part in conception of the manuscript and data acquisition; IB, MMB contributed to the analysis and interpretation of data; RSR, EM drafted the manuscript and reviewed the literature.

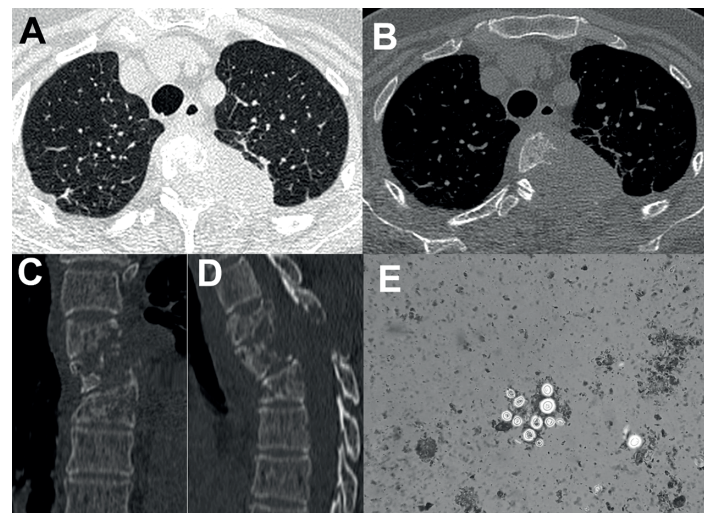
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**FIGURE 1:** Chest CT with axial images of the lungs (**A**) and the bone window (**B**) show a soft-tissue mass in the left paravertebral region, with extension to the adjacent vertebra and the posterior costal arch. Coronal (**C**) and sagittal (**D**) reformatted images show lytic lesions involving the T3–T5 vertebral bodies. (**E**) CT-guided biopsy reveal multiple round, thin-walled, encapsulated yeast cells (*C. neoformans*), identified by India ink staining.

### CONFLICT OF INTEREST

The authors declare that there is no conflict of interest.

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