



## Even More Unusual Spine Infections... And Why Every Suspected Spine Infection Needs a Biopsy

In the Oct 2023 issue of Inner Spaces, we discussed cases of *Coccidioides immitis* and *Brucellosis*, initially thought to be due to tuberculosis, diagnosed correctly only after CT guided biopsies were done.

This month's issue continues this sage of unusual spine infections in 3 different patients, with unusual organisms, not typically associated with spine infections (Figs. 1-3).

I repeat...every infective discitis or infective spondylitis needs to be biopsied. Period.

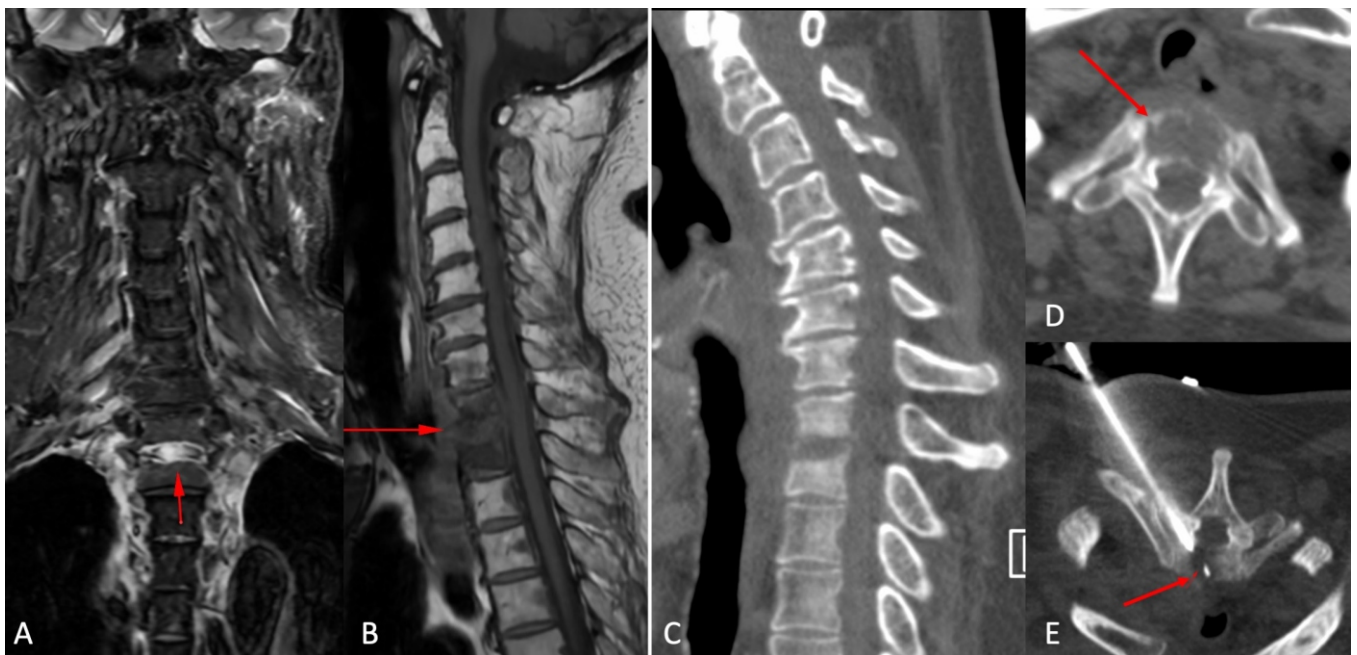


Fig. 1(A-E): *Rhizopus microsporus* (Mucormycosis). A 61-years old man treated for buccal cancer with radiotherapy to the neck, presented with pain and fever. STIR coronal (A) and axial T1W MRI showed typical findings (arrows) of an infective spondylitis. Sagittal (C) and axial (D) CT scans confirmed these findings (arrows). A CT guided biopsy was done using a costovertebral approach (arrow in E) and microbiology grew *Rhizopus*, which confirmed mucormycosis. He is clinically improving on antifungals.

**At a glance**

- ◆ Not all spinal infections are due to tuberculosis and other organisms like Salmonella, E.coli, Staphylococcus aureus, Brucellosis and fungal infections are also known to infect the disc and endplates.
- ◆ The diagnosis largely depends on the isolation of the organism by microscopic and culture methods.
- ◆ A CT guided biopsy is required in all patients with suspected spine infection, not only to confirm the diagnosis and rule out other possibilities but also to obtain material for culture and sensitivity tests.



Fig. 2 (A-E): *Aspergillus flavus* infection. A 45-years old lady had back pain and had an epidural injection done. A few weeks later, she presented with fever and increased backache. Post-contrast T1FS sagittal (A) and axial (B) MRI images show infective discitis with epidural soft tissue (arrows) at L4/5. She was treated with antibiotics empirically and when the symptoms worsened, she was sent for a CT guided biopsy. The CT done 6 weeks later shows significant progression of disease with discitis (arrows) in the sagittal (C) and coronal (D) planes. The biopsy was performed using a transpedicular approach and showed *Aspergillus flavus*, an unusual form of *Aspergillus* infection. She is currently on antifungals.



Fig. 3 (A-C): *Serratia marcescens*. A 69-years old lady presented with backache and fever. STIR coronal (A) and T1W (B) MRI images show an infective spondylitis (arrows) at D10/11. Sagittal (C) and axial (D) CT images confirm the findings. A biopsy was performed using a transpedicular approach (arrow in E) and microbiology grew *Serratia marcescens*, a Gm negative bacterial infection.

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