

FROM GUTTO SPINE

A RARE PRESENTATION OF *SALMONELLA ENTERICA* VERTEBRAL INFECTION

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INTRODUCTION & AIM

- Pyogenic spondylodiscitis is an uncommon but potentially severe infection of the intervertebral disc and adjacent vertebral bodies
- Infection due to *Salmonella enterica* is rare and typically associated with hemoglobinopathies, immunosuppression or prior gastrointestinal infection
- We report a case of **thoracic spondylodiscitis caused by *Salmonella enterica*** in an otherwise immunocompetent young adult, highlighting diagnostic and therapeutic challenges

CLINICAL PRESENTATION

- 19-year-old man, with no relevant past medical history, presenting with **dorsal pain**, for the last 3 weeks, and **self-limited fever** on the last 4 days

RESULTS

➤ Laboratory tests

Normal leukocyte count, minimally elevated C-reactive protein / procalcitonin and an erythrocyte sedimentation rate of 46 mm/h
Blood cultures and serological workup were negative

➤ Vertebral CT

T5–T6 intervertebral disc space narrowing, vertebral endplate irregularities, and **paravertebral soft tissue component** extending into the right neural foramen

➤ Vertebral MRI

T5–T6 spondylodiscitis and **prevertebral loculated collections** (Fig 1)

➤ CT-guided vertebral biopsy culture

Salmonella enterica, susceptible to third-generation cephalosporins and trimethoprim-sulfamethoxazole, and resistant to ciprofloxacin

Mycobacterial cultures / PCR testing were negative

TREATMENT AND FOLLOW-UP

- ✓ **Ceftriaxone 2 g IV** – od for 6 weeks
- ✓ Followed by **Trimethoprim-Sulfamethoxazole 960 mg PO** – every 8 hours for 4 weeks
- ✓ **Full clinical recovery** with resolution of pain, total function recovery and no neurological deficits
- ✓ 3-month follow-up MRI revealing a marked reduction of edema and **complete resolution of the prevertebral collection without signs of vertebral collapse** (Fig. 2)



Fig. 1 - Initial MRI



Fig. 2 - Follow-up MRI

CONCLUSIONS

- This case highlights the importance of considering spinal infection in persistent back pain, with prior fever, even if inflammatory markers are only mildly elevated
- **MRI and image-guided biopsy** were essential for definitive diagnosis
- **Prolonged targeted antimicrobial therapy** can achieve complete clinical and radiological recovery, without surgical intervention