

24th Annual Resident Poster Day

October 12, 2021



Atypical cause of thoracic osteomyelitis causing acute neurologic dysfunction in an immunocompetent host

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A 48-year-old male presented with chronic right sided back pain radiating to right lower chest. The pain was gradual in onset and progressive over the preceding month, exacerbated by direct pressure on laying on that side and on coughing. Associated with hemoptysis once and tingling and numbness of both lower extremities for one day. Urinary/bowel incontinence and saddle anesthesia were not present. Relevant past history included hypertension, smoking, and a remote history of incarceration. Vital signs were stable and physical exam showed only focal palpable mid-thoracic spinal tenderness without overlying skin changes and intact neurologic examination. Significant laboratory findings included leukocytosis of $10.9 \times 10^3 / \mu$, with elevated erythrocyte sedimentation rate at 22mm/hour and D-dimer of 682 ng/mL. Chest X-Ray showed clear lung fields with ill-defined endplate irregularities involving midthoracic vertebral bodies. Computed tomography of chest with contrast showed T5-6 discitis/osteomyelitis and ill-defined prevertebral soft tissue density at T5-T6 suggestive of phlegmon/developing abscess, with suspected extension into the adjacent right posterior upper and lower lobes. Fourth-generation HIV screening test was negative. Magnetic resonance imaging (MRI) showed discitis and osteomyelitis at T5-6 with circumferential epidural and prevertebral enhancement consistent with phlegmon formation; and resultant cord compression at T5-6 level secondary to mass effect. Blood cultures were negative. Patient remained afebrile with leukocytosis. He subsequently underwent posterior thoracic decompression of T5-T6 and T6-T7 with decompression of the spinal cord, right-sided foraminotomies, removal of posterior phlegmon, and a posterior thoracic fusion T2 to T9. Postoperatively, empirical intravenous vancomycin and ceftriaxone were started. He demonstrated improvement in pain. T5-T6 laminar bone culture grew *Prevotella bivia*. However, bacterial and mycobacterial PCR sequencing results on same specimen were negative. Six weeks of intravenous ceftriaxone and per oral metronidazole were finalized. Post-operative MRI showed significant improvement in epidural collection.