

# Hypervirulent *Klebsiella pneumoniae* Osteomyelitis Mimicking Osteosarcoma

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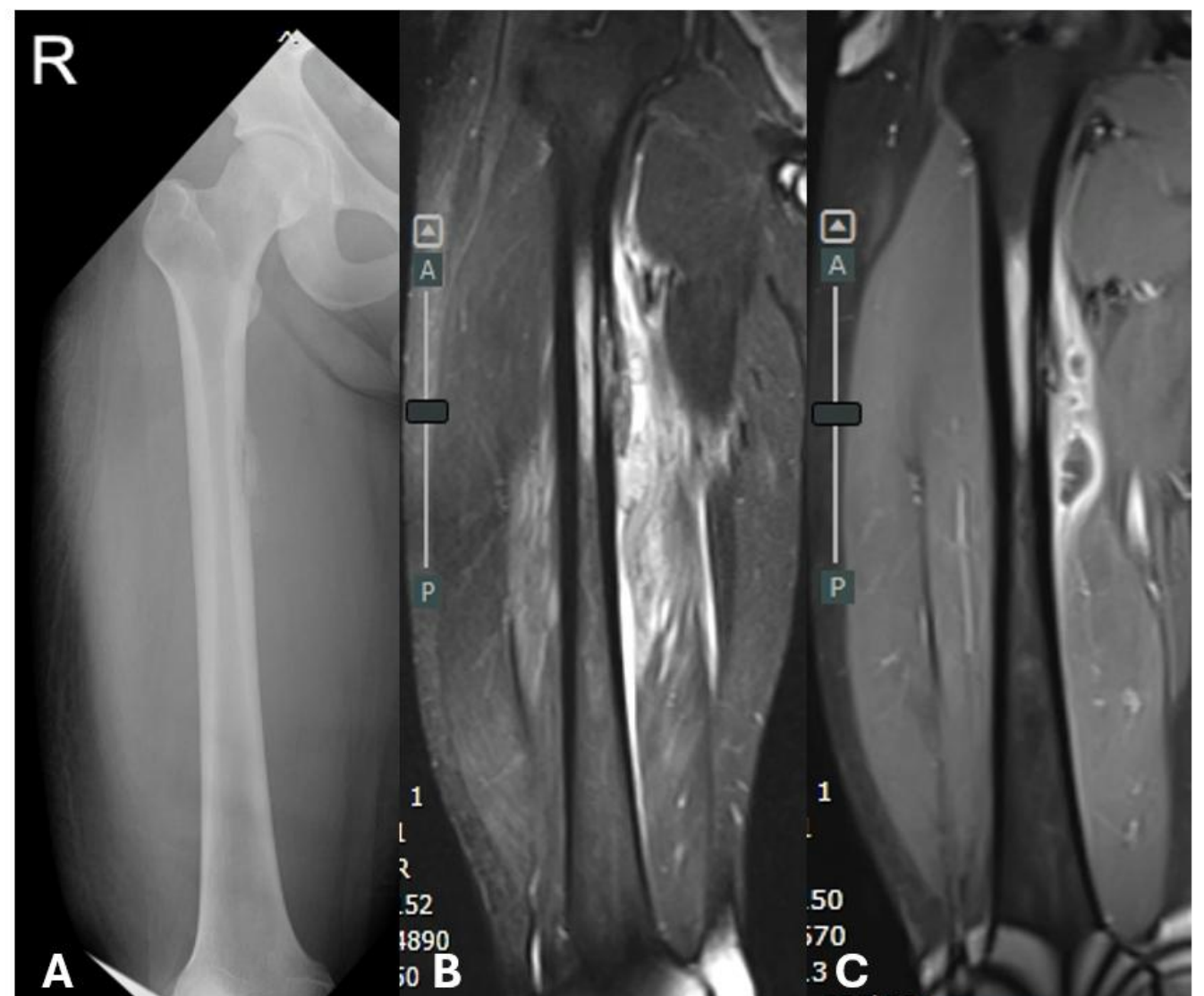
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## Background

- Hypervirulent *Klebsiella pneumoniae* (hvKP) commonly causes liver abscess, endophthalmitis, and bacteremia, especially in patients with diabetes.
- Bone involvement is rare and may mimic malignancy, leading to delayed diagnosis.

## Case description

- A 27-year-old previously healthy farmer presented with **pain** and **swelling of the right proximal femur** for **4 weeks**.
- No history of fever or trauma.
- MRI showed an infiltrative intramedullary lesion with cortical destruction, initially **suspicious for osteosarcoma**.
- Biopsy revealed chronic inflammation, and both blood and bone cultures grew *Klebsiella pneumoniae*.
- Genomic sequencing identified K1 serotype hvKP (positive for **wzi-1**).
- Type 2 diabetes mellitus was newly diagnosed during admission.
- He was treated with six weeks of intravenous ceftriaxone followed by oral ciprofloxacin, with clinical and radiographic resolution.



(A) Plain film of the femur showing medial cortical osteolytic lesion with periosteal reaction.

(B,C) T2 and T1-weight with gadolinium MRI showing intramedullary lesion with cortical destruction at medial cortex

## Discussion

- HvKP osteomyelitis can mimic bone malignancy both clinically and radiographically.
- Early recognition is crucial to prevent delayed diagnosis and avoid unnecessary surgery or oncologic treatment.