



INSIGHTS IN IMAGES CLINICAL CHALLENGE

In each issue, *JUCM* will challenge your diagnostic acumen with a glimpse of x-rays, electrocardiograms, and photographs of dermatologic conditions that real urgent care patients have presented with.

If you would like to submit a case for consideration, please e-mail the relevant materials and presenting information to editor@jucm.com.

FIGURE 1



The patient is a 14-year-old boy who presents with low back pain after falling from “a high height” and landing on his feet.

Exam is normal except for tenderness in the mid-lumbar region.

View the image taken (**Figure 1**) and consider what your diagnosis and next steps would be.

Resolution of the case is described on the next page.

THE RESOLUTION



This patient suffered a stable fracture of the L3 vertebra, confirmed by CT. He was discharged home with instructions to follow up with an orthopedist.

This case serves as an important reminder about high-impact injuries. While this patient did not experience a direct blow to the back, the mechanism of injury, in combination with point tenderness, mandates imaging.

Acknowledgment: Case presented by Nahum Kovalski, BSc, MDCM, Terem Emergency Medical Centers, Jerusalem, Israel.

This case is one of hundreds that can be found in Terem's online X-ray Teaching File, with more being added daily. Free access to the file is available at <https://www2.teremi.com/xrayteach/>. A no-cost, brief registration is required.



FIGURE 1



The patient is a 23-year-old healthy male presenting for a “wound check.”

Four weeks prior, the patient had crushed his left fifth finger in a car door. Initial x-rays were negative for a fracture. He was placed on cephalexin because of a small avulsion of skin on the distal aspect of the finger.

On current exam, the distal aspect of the dermis of the fifth finger has sloughed off. The underlying tissue is pink without pustular drainage or swelling and granulation tissue is present. There is decreased range of motion at the DIP joint and pain with palpation.

View the image taken (**Figure 1**) and consider what your diagnosis and next steps would be.

Resolution of the case is described on the next page.

THE RESOLUTION



There are erosive changes in the distal phalanx of the fifth finger, with loss of the overlying cortex, suspicious for osteomyelitis.

While plain films will have non-specific changes early in the disease process, osseous changes will often be visible after 10-14 days. Most osteomyelitis after a trauma are from a contiguous spread from an adjacent soft-tissue infection.

This patient was admitted and found to have a small abscess that was cultured to grow methicillin-resistant *Staphylococcus aureus* (MRSA). He was started on IV vancomycin and discharged home with PO trimethoprim/sulfamethoxazole for six weeks.

Acknowledgment: Case presented by Sara A. Lolar, PA-C, Detroit Receiving Hospital Emergency Department; Wayne State University Physician Assistant Studies Program, Detroit, MI.