



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

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

A 2-Year-Old Girl with Leg Pain After Jumping on a Trampoline



Case

The patient is a 2-year-old girl who is brought to your urgent care center by her parents several hours after jumping on a trampoline with her friend. Her parents say she “seemed fine” when the mother picked her up to come home.

View the images taken and consider what the diagnosis and next steps would be. Resolution of the case is described on the next page.

THE RESOLUTION

Figure 1.

**Differential Diagnosis**

- Acute transverse fracture of the proximal tibial metaphysis
- Hairline spiral fractures of the tibial diaphysis (ie, a toddler fracture)
- Irritable hip
- Subacute osteomyelitis

Diagnosis

The x-ray shows an acute transverse fracture of the proximal tibial metaphysis—an acute Salter type II “trampoline fracture” of the proximal tibia.

Learnings/What to Look for

- Trampoline fractures typically occur in children 2 to 5 years of age while jumping on a trampoline (or other jumping surface) with another, heavier individual

- The upwards bending/recoil of the jumping surface after the heavier partner’s jump exerts excessive axial load on the tibia of the younger lighter child concomitantly descending on the trampoline with extended knees. Immature bones of the children are soft and less resistant to the kinetic energy of the axial load, leading to a proximal tibial impacted fracture
- Radiographic findings include a transverse impacted fracture in the proximal tibial metaphysis. The fractures are usually not angulated or displaced. Bilateral fractures can occur

Pearls for Urgent Care Management and Considerations for Transfer

- Treatment is usually conservative with immobilization. The fractures usually heal without permanent disability or impairment

Acknowledgment: Images and case provided by Teleradiology Specialists, www.teleradiologyspecialists.com.



An 80-Year-Old Man with Rhinorrhea, Cough, and Intermittent Dizziness

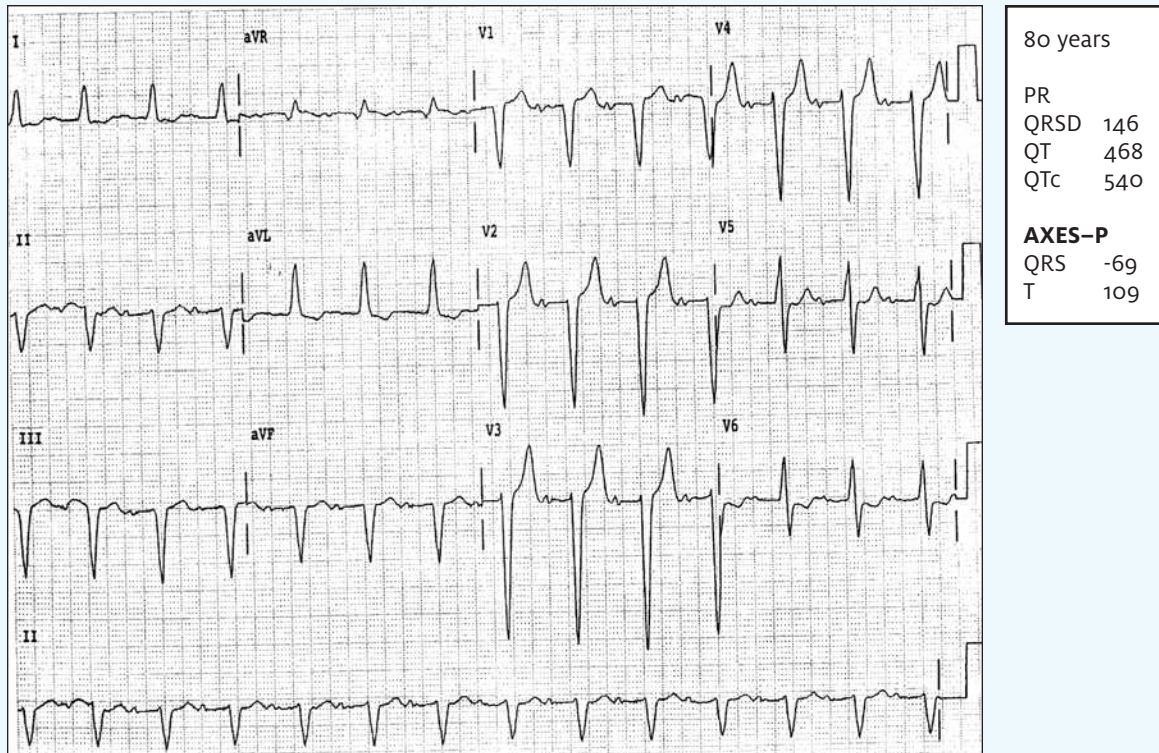


Figure 1.

Case

The patient is an 80-year-old man with history of hypertension and high cholesterol who presents with rhinorrhea and cough. On further history, he admits to 2 months of intermittent dizziness, not worsening. He denies any chest pain/discomfort, SOB, or sweating. No neuro symptoms.

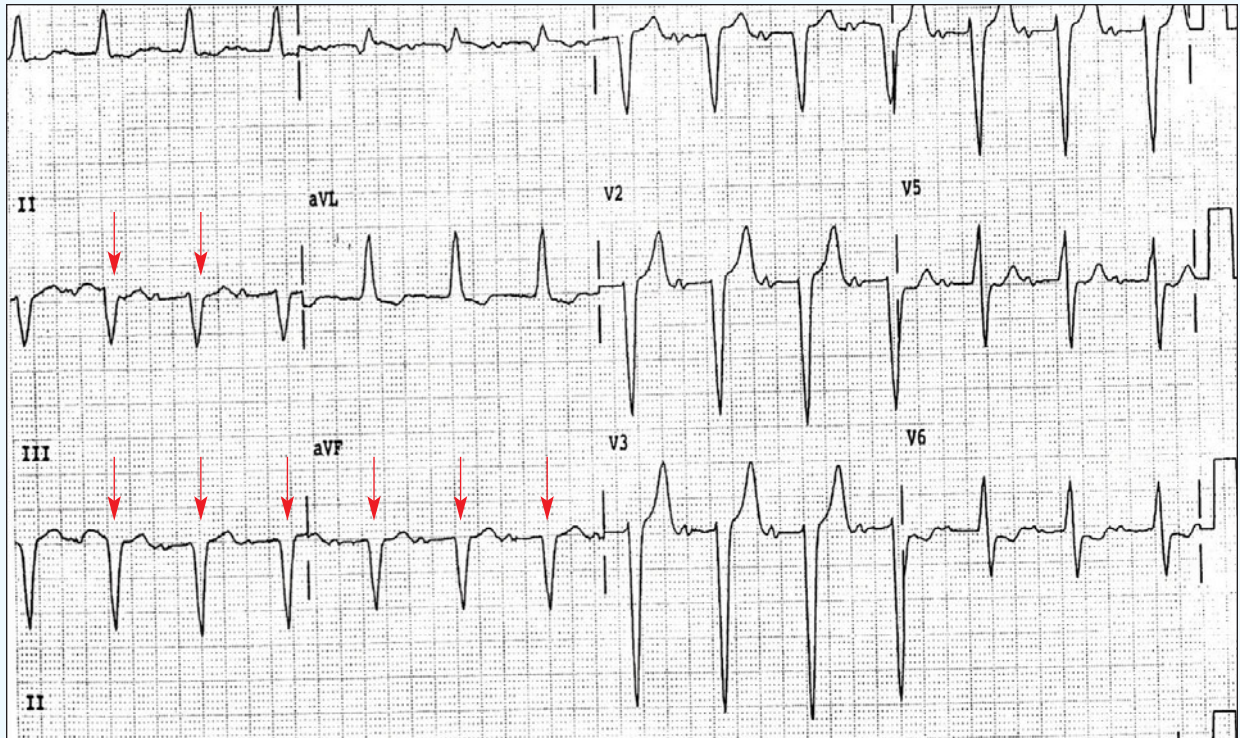
Upon exam, you find:

- **General:** A&O, NAD
- **Lungs:** Clear bilaterally

- **Cardiovascular:** Regular rhythm, without m,r,g
- **Abdomen:** Soft and nontender
- **Ext:** No edema or asymmetry, pulses are 2+ and equal in all extremities, no pain with palpation

An ECG is performed before you evaluate the patient. Review the ECG and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.

THE RESOLUTION

**Differential Diagnosis**

- Second-degree heart block
- Third-degree heart block
- Junctional rhythm
- Q waves in the inferior leads, indicative of previous MI or LBBB
- Acute inferior MI

Diagnosis

This ECG shows a sinus rhythm (a P wave preceding each QRS) with a rate of 80, but the PR interval is prolonged, reflecting first-degree AV block (normal PR interval is 120-200 ms).

As there is a p wave before each QRS, this is not a junctional rhythm.

Second-degree block involves a dropped beat (either Mobitz 1 or 2). Third-degree AV block has complete absence of AV conduction without relation of the p waves and the QRS complexes, typically at a rate in the 30s. Neither second- or third-degree AV block is reflected on this ECG.

There is no evidence of ST elevation in the inferior leads (II, III, aVF), so this is not an acute inferior MI.

The Q waves present in the inferior leads are likely indicative of a previous MI. Note that with the widened QRS complex (normal is 80-120 ms) there is a nonspecific intraventricular conduction delay which could also indicate that left bundle branch block

(LBBB) is present and the Q waves present inferiorly could also be due to the LBBB.

Learnings/What to Look for:

- The inferior leads, II, III, and aVF are limb leads which reflect changes at the bottom portion of the heart, typically with blood supply from the right coronary artery (RCA)
- Q waves are present if there is a Q-wave which is one box (0.04 ms) wide and one box deep
- In addition to evaluating ECGs for acute ischemia, they should be checked for possible past infarction

Pearls for Urgent Care Management and Considerations for Transfer

- Evidence of old MI can be incidentally found on ECGs
- Assess for ongoing ischemia clinically (chest pain/discomfort, shortness of breath, diaphoresis, arm/shoulder/neck/jaw pain) and with assessment of the ECG for ST elevation, ST depression, or T wave inversion
- If the patient is asymptomatic and the Q waves are found incidentally, further evaluation can be done as an outpatient
- If there are clinical or ECG changes of ischemia, the patient should be emergently transferred to the ED



A 48-Year-Old Woman with a Facial Lesion



Case

The patient is a 48-year-old woman who presents with a single lesion on her cheek/face. As a healthcare worker herself, she says she is concerned that the excoriation might get infected. She denies knowing anything about the possible cause, but insists on receiving treatment.

Notably, she is a frequent visitor to your urgent care center in spite of the fact that she is in excellent physical health. However, she has been diagnosed with borderline personality disorder.

View the image and consider what your diagnosis and next steps would be. Resolution of the case is described on the next page.

THE RESOLUTION

**Differential Diagnosis**

- Acne excoriée
- Factitial ulcer
- Prurigo nodularis
- Neurogenic ulcer

Diagnosis

This patient was diagnosed with factitial ulcer. A manifestation of dermatitis artefacta, these occur secondary to a patient digging, excoriating, or generally manipulating their own skin—a psychiatric condition in and of itself, in which patients self-induce lesions in order to satisfy a need to assume the “sick role.”

Learnings/What to Look for

- Patients are unlikely to admit creating the lesions themselves
- Diagnosis of self-abuse tends to occur more frequently in women and in those working in healthcare
- Factitial ulcers should be differentiated from malingering, in which lesions are created deliberately for secondary gain, such as collecting disability or obtaining prescriptions

Pearls for Urgent Care Management and Considerations for Transfer

- Lesions are often produced by digging, picking, biting, cutting, injecting, and puncturing. Be vigilant for wounds that may be complicated by gangrene, abscess formation, or other life-threatening infections
- Treatment requires a multidisciplinary approach. In the urgent care setting, treat the wound according to its severity
- In patients for whom there is no known psychiatric diagnosis, recommend consultation with a mental health provider

Acknowledgment: Images courtesy of VisualDx (www.VisualDx.com/JUCM).