



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 47-Year-Old Woman with Hip Pain After Exercise



Case

The patient is a 47-year-old woman who presents with left hip pain that worsens when she is working out on her elliptical machine, and improves with rest.

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

THE RESOLUTION

Figure 2.

**Differential Diagnosis**

- Femoral head avascular necrosis
- Hip tendinitis and bursitis
- Subcapital hip fracture
- Snapping hip syndrome
- Cortical thickening due to stress reaction or impending stress fracture

Diagnosis

The image shows focal cortical thickening along the medial wall of the femoral neck. This could be due to a stress reaction and be the precursor to a stress fracture. There is no evidence of lucent fracture line.

Learnings/What to Look for

- Causes of focal cortical thickening may include osteoid osteoma, chronic infection, and stress fracture—all of which may appear similar on radiographs. As such, more advanced imaging is required

Pearls for Urgent Care Management and Considerations for Transfer

- This patient should undergo an MRI. If one is not available on site, she should be referred

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



A 55-Year-Old Man with a 2-Day History of Respiratory Symptoms, Palpitations, and Dizziness

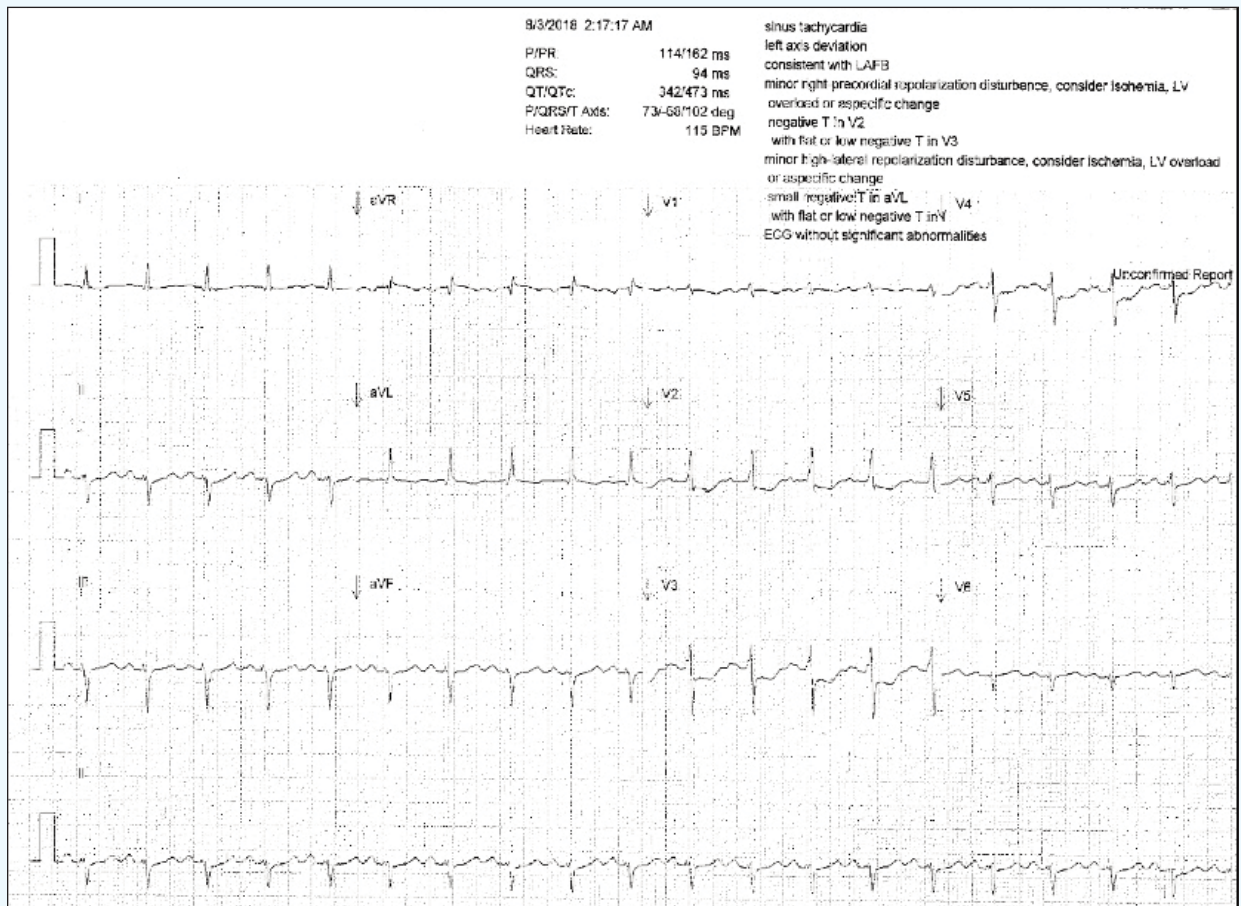


Figure 1.

Case

A 55-year-old male presented to urgent care with a chief complaint of coughing, shortness of breath, wheezing, chest palpitations, and dizziness for the past 2 days. The patient denied chest pain. He has a significant past medical history of diabetes mellitus II and takes metformin 500 mg once a day.

The patient's blood pressure is 88/60 mmHg, heart rate is 115, O₂ sat 98%, weight 275 pounds, BMI 50.3. In addition:

■ **General:** alert and oriented X3

■ **Lungs:** CTAB

■ **Cardiovascular:** tachycardic and regular without murmur, rub, or gallop

■ **Abdomen:** soft and non-tender, no pulsatile mass

■ **Ext:** 1+ pitting edema bilaterally in shins and ankles, pulses are equal and 2+ in all extremities

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

THE RESOLUTION

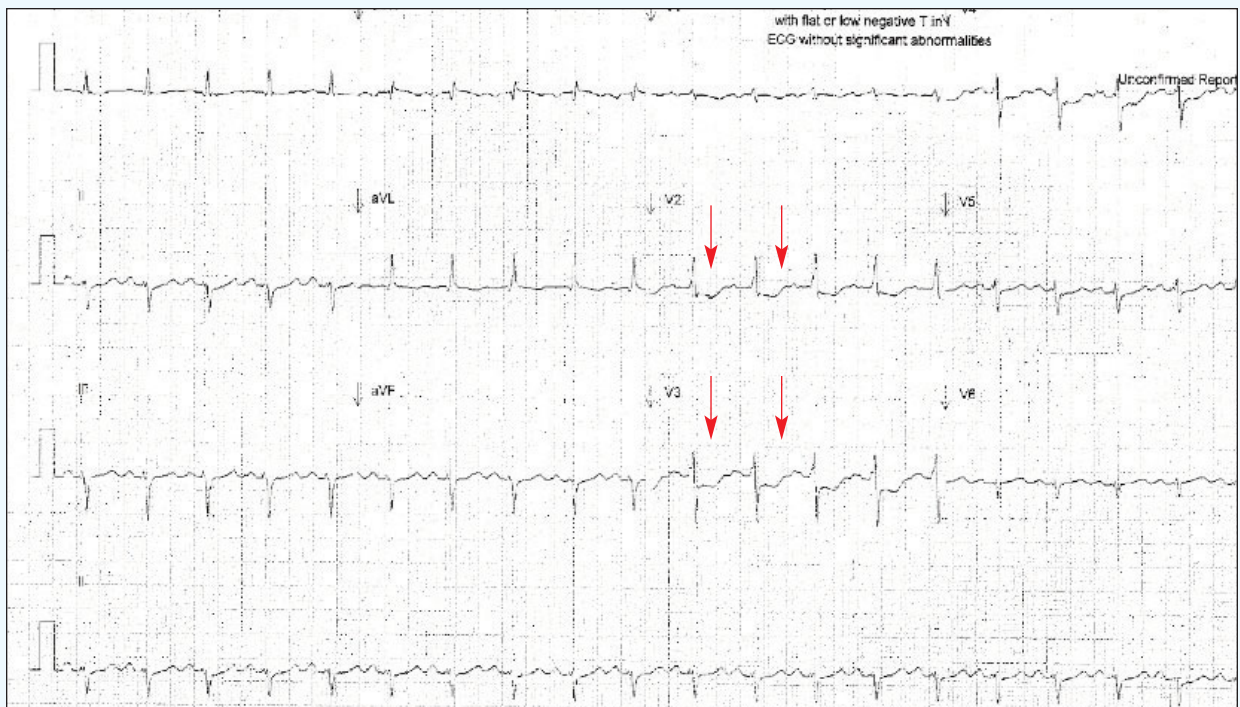


Figure 2.

Differential Diagnosis

- Anterior myocardial infarction
- Subendocardial ischemia
- Posterior myocardial infarction
- Left anterior fascicular block
- Supraventricular tachycardia

Diagnosis

The ECG shows marked ST depression in chest leads V2, V3, and V4. This patient had a posterior myocardial infarction. Immediately he received oral fluids, aspirin, and albuterol nebulizer treatments but showed no significant improvement. Nitroglycerin 0.4 mg was not given due to low blood pressure because of the likelihood of having right heart myocardial infarction. ECG was repeated after 15 minutes and showed no improvement.

The patient was transferred and admitted to the hospital for further evaluation and treatment. There, catheterization showed four vessels blocked, leading to open heart surgery.

Learnings/What to Look for

- Be alert for ST-depression in the anterior leads of V1-V3 since these leads directly face the posterior wall of the left ventricle
- Other signs include:

- Large R-waves in leads V1-V2
- R:S >1 in either V1 or V2
- Often, there will be large and upright anterior T waves
- There may be subtle signs of inferior or lateral MI; look for ST elevation in other corresponding leads

Pearls for Urgent Care Management and Considerations for Transfer

- Probe for signs of MI, including chest discomfort, shortness of breath, diaphoresis, and dizziness, as well as hemodynamic instability (eg, hypotension, dizziness, confusion)
- If symptomatic in the urgent care, give oxygen support, aspirin, 0.4 mg sublingual nitroglycerin, and morphine if chest pain continues
- Do a mirror image challenge and look at leads V1-V4 by turning the ECG readings 180° and putting the readings up to the light. The tall anterior R-waves become deep posterior Q-waves, the ST-depression becomes ST-elevation, and upright T-wave becomes terminal T-wave inversion
- Do not give nitroglycerin to patients who are hypotensive
- All patients presenting to the urgent care with a posterior MI will need emergent transfer to a cardiac catheterization lab

Acknowledgment: Case submitted by Sudhir R. Gogu, DO, PhD, MBA.



An 18-Month-Old with an Itchy Rash and Wheezing

Figure 1.



Case

The patient is an 18-month-old girl brought to your urgent care center by her parents. They report that she has been scratching her abdomen. When they lifted her shirt, they found multiple hyperpigmented macules widespread across the front and back of her trunk. She also has 1 hour of wheezing.

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

THE RESOLUTION

Figure 2.

**Differential Diagnosis**

- Urticaria pigmentosa
- Bullous impetigo
- Atopic dermatitis
- Psoriasis

Diagnosis

This patient was diagnosed with urticaria pigmentosa, a form of cutaneous mastocytosis in which mast cells accumulate in the skin, causing the characteristic skin lesions seen here.

Learnings

- Urticaria pigmentosa presents within the first week-to-months of life, though involution can occur in early childhood or last until puberty
- Bronchospasm, as well as flushing, diarrhea, and syncope can all occur

- Unlike adult forms of mastocytosis, there is rarely internal organ involvement in children

Pearls for Urgent Care Management and Considerations for Transfer

- There is no “cure,” per se, for urticaria pigmentosa, though antihistamines can relieve itching and flushing. Other treatments include:
 - Topical corticosteroids
 - Hydrocolloid dressings
 - Fluocinolone acetone
- Parents of younger children should try to discourage scratching or rubbing of itchy skin, as doing so could spur a stronger reaction

Acknowledgment: Images courtesy of VisualDx.