

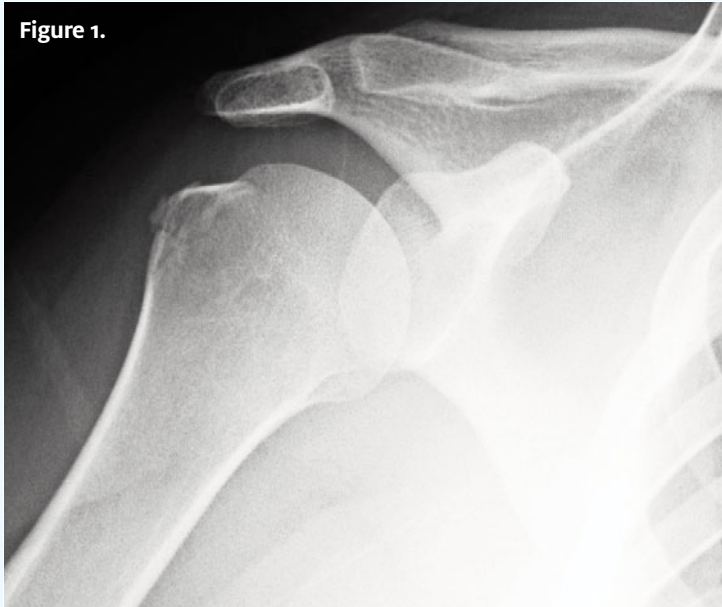


In each issue, *JUCM* will challenge your diagnostic acumen with a glimpse of x-rays, electrocardiograms, and photographs of conditions that real urgent care patients have presented with.

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

## A 38-Year-Old Woman with Shoulder Pain

Figure 1.



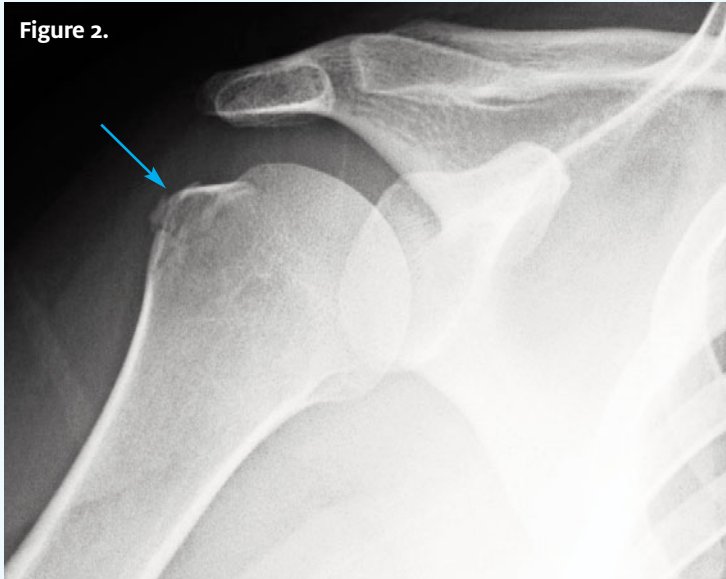
### Case

A 38-year-old female patient presents with acute shoulder pain following a fall on an outstretched arm during a spring skiing vacation. There is a normal appearance to the shoulder, but significant pain even with minimal attempts at range of motion. The clavicle and elbow are nontender. Neurovascular status is intact.

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

Figure 2.

**Differential Diagnosis**

- Shoulder dislocation
- Distal clavicle fracture
- Avulsion of the greater tuberosity
- Osteolytic lesion
- Scapular fracture

**Diagnosis**

This patient sustained an avulsion of the greater tuberosity. The x-ray shows oblique lucency undermining greater tuberosity of the humerus, with cortical irregularity.

**Learnings**

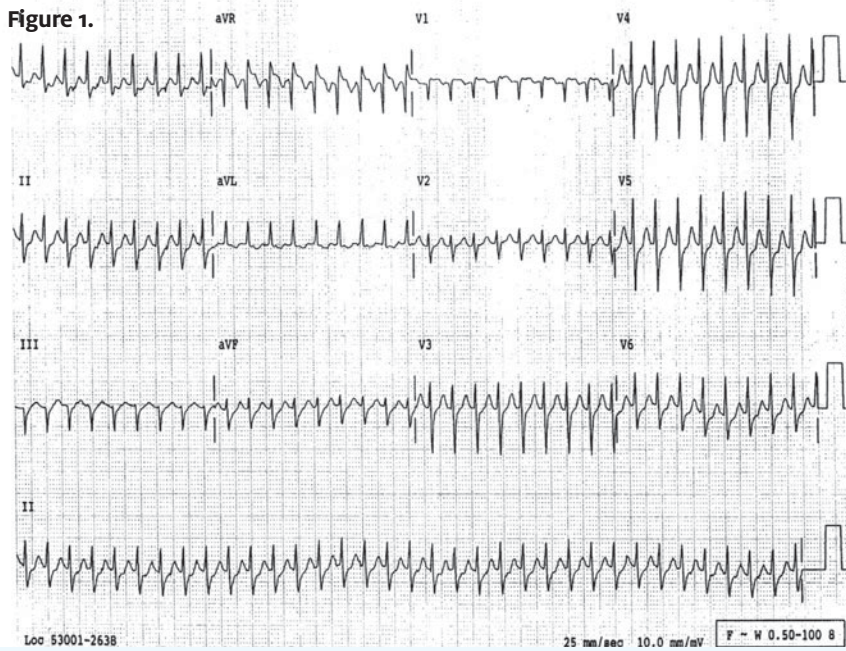
- An avulsion of the greater tuberosity is sometimes called a “hidden fracture” because it usually presents as an undisplaced fracture, which often does not show up on x-rays
- This injury is often associated with tear of the supraspinatus tendon
- When minimally displaced, treatment is often successful without surgery

**Pearls for Initial Management and Considerations for Transfer**

- Shoulder trauma should be imaged in the urgent care, looking for:
  - Dislocation
  - Fracture of the humerus, clavicle, and scapula
  - Acromioclavicular (AC) separation
  - Abnormalities of associated structures such as rib fractures or pneumothorax
- A dislocation can be reduced in the urgent care, per provider experience.
- Indications for transfer include:
  - Patients with severe pain
  - Diagnostic uncertainty
  - Dislocation unable to be reduced
  - Consideration for septic arthritis or infection
  - Shoulder pain without exam findings of musculoskeletal injury for consideration of acute coronary syndrome (ACS) ■



# A 62-Year-Old Woman with Dizziness and Palpitations



61 yrs Female

PR	100	(SVT)	rate = 209	V-rate > (220-age) or 150
QRSD	100	(LAD)	Left axis deviation	QRS axis -31 to -90
QT	244	(SDOLA)	Nonspecific Lateral ST depression	ST -.05 mV I, aVL, V5, V6
QTc	455		ABNORMAL ECG	

## Case

The patient is a 62-year-old woman who presents to the urgent care center after 1 hour of intermittent dizziness and feeling of palpitations. She has no chest pain, fever, vomiting, or diarrhea. Further history reveals that she has a history of anxiety, which is manifested by intermittent feeling of heart “palpitations.”

Her primary care doctor is treating her with a selective serotonin reuptake inhibitor (SSRI) for anxiety.

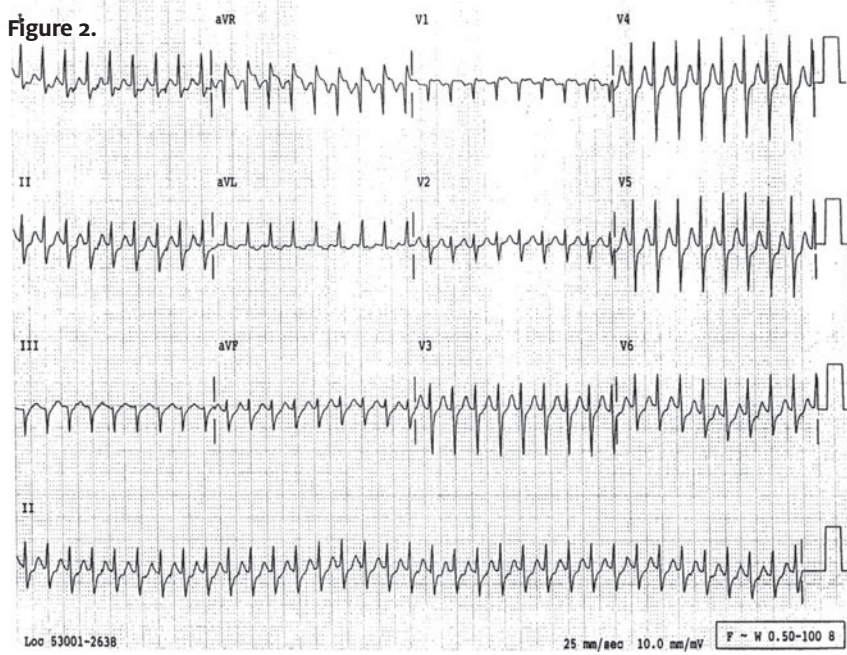
Upon exam, you find:

- **General:** Alert and oriented; mildly tachypneic
- **Lungs:** CTAB
- **Cardiovascular:** Regular and tachycardic without murmur, rub, or gallop
- **Abdomen:** Soft and nontender without rigidity, rebound, or guarding
- **Extremities:** No pain or swelling of the lower extremities; pulses are 2+ and equal in all 4 extremities

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

THE RESOLUTION

Figure 2.



61 yrs Female

PR 100 (SVT) . Supraventricular tachycardia, rate = 209 - - - - V-rate > (220-age) or 150  
 QRSD 244 (LAD) . Left axis deviation - - - - - QRS axis -31 to -90  
 QT 455 (SDOLA) . Nonspecific Lateral ST depression - - - - - ST -.05 mV I, aVL, V5, V6  
 QTc 455 - ABNORMAL ECG -

Differential Diagnosis

- Sinus tachycardia
- Supraventricular tachycardia
- Ventricular tachycardia
- Inferior STEMI
- Atrial fibrillation with rapid ventricular response (RVR)

Diagnosis

The ECG reveals a narrow complex rhythm, so this is not ventricular tachycardia (which would be wide complex). The rhythm is regular, excluding the diagnosis of atrial fibrillation. There are no p waves, so sinus tachycardia is very unlikely. Inferior STEMI is not present, as there are no ST elevations in the inferior leads of II, III, aVF. This ECG shows supraventricular tachycardia.

Learnings

- Supraventricular tachycardia usually occurs from AV node reentry
- The ECG will show a narrow-complex tachycardia
- It is most often seen in women, usually in young adults
- It is unusual to have concomitant cardiovascular disease
- Symptoms may include palpitations, lightheadedness, shortness of breath, or chest discomfort

Pearls for Initial Management and Considerations for Transfer

- Vagal maneuvers may be effective
- A new technique called “postural modification” has recently been described, where the patient lays supine while a vagal maneuver is being performed (such as holding the breath and bearing down) as the extended legs are raised quickly to 45 degrees by the provider
- If available, adenosine 6 mg IV over 1-3 seconds followed by 20 mL NS bolus can be used when vagal maneuvers fail. Monitoring capability, ACLS preparedness and physician supervision is necessary
- Transfer should be initiated with hypotension, confusion, inability to terminate the rhythm, or diagnostic uncertainty



## An 18-Year-Old Woman with Sudden Rash, Vomiting, and Cramping

Figure 1.



### Case

An 18-year-old woman was swimming in the Atlantic Ocean off the coast of Florida when suddenly she experienced a sharp, stinging pain on her arm. That evolved into a severe ache shortly, accompanied by a painful red lesion. She vomited on her way to your urgent care center, and still feels nauseous. She is also complaining of muscle cramps.

View the photo 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**

- Fire coral sting
- Contact dermatitis
- Portuguese man-of-war sting
- Hawaiian box jellyfish sting

**Diagnosis**

The photo shows, and the accompanying symptoms are indicative of, a Portuguese man-of-war sting. Typically, a red line with scattered papules develops at the sting site. Wheals and blisters may form. Mild shock, nausea, vomiting, abdominal pain, muscle cramps, and headache are common.

**Learnings**

- The Atlantic Portuguese man-of-war (*Physalia physalis*) is found in the Atlantic Ocean, from Nova Scotia to the Caribbean. Another variety (the Pacific bluebottle, *Physalia utriculus*) can be found in the Pacific Ocean
- *Physalia* venom causes release of inflammatory mediators; it is directly toxic to the myocardium, liver, and kidneys. Systemic reactions are common, but rarely severe
- One toxin, physalitin, depresses the nervous system and can cause respiratory depression
- Rarely, stings may cause death by cardiovascular collapse or respiratory arrest. Hypersensitivity reactions, including anaphylaxis, are rare

**Pearls for Initial Management and Considerations for Transfer**

- Difficulty breathing or alteration in consciousness warrants transfer to the ED, and possibly injection of epinephrine
- Tentacles remaining embedded in the skin should be removed, either with forceps (preferred) or double-gloved fingers
- Pain can last anywhere from minutes to hours. If present, wheals last a few hours. Redness can last up to 24 hours. These are self-limiting, but supportive care (eg, NSAID pain relievers) may provide comfort
- If the eye is affected, there may be intense burning and tearing pain, blurry vision, and light sensitivity; these will resolve spontaneously in 24–48 hours ■