



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 Toddler with a Sudden Limp



Figure 1.



Figure 2.

### Case

The patient is a 3-year-old female who is brought to your urgent care center by her parents, who report that she has been limping and crying intermittently seemingly without reason for the past several hours. Her father says she cries acutely when picked up, but that she calms down quickly with comforting.

View the images taken (**Figure 1** and **Figure 2**) and consider what the diagnosis and next steps would be. Resolution of the case is described on the next page.

THE RESOLUTION



Figure 1.



Figure 2.

**Differential Diagnosis**

- Hairline spiral fracture of the tibial diaphysis (also known as a toddler fracture)
- Irritable hip
- Subacute osteomyelitis
- Transverse fractures of the proximal tibial metaphysis (also known as trampoline fracture)

**Diagnosis**

The images reveal a hairline spiral fracture of the tibial diaphysis, or a *toddler fracture*.

**Learnings**

- Toddler fractures are often identified clinically in a walking toddler who is limping or unable to put any weight on their leg, most commonly after a minor fall. They can also occur

when a sneaker gets caught on the side of a playground slide (especially if the child is riding down on the parent’s lap). Sometimes there may be no history of trauma, and the diagnosis is suspected based on presenting symptoms

- Tibia and fibula films are the preferred radiographic study for evaluation. In this case knee and ankle films were performed, and partially captured the fracture

**Pearls for Urgent Care Management and Consideration for Transfer**

- Closed reduction and long leg casting are used to treat most patients. These can be administered in the urgent care center according to the provider’s skill level, or transferred emergently to a specialist or higher-acuity setting

**Acknowledgment:** Images courtesy of Teleradiology Specialists.



# A 52-Year-Old Man with Recent-Onset Dizziness

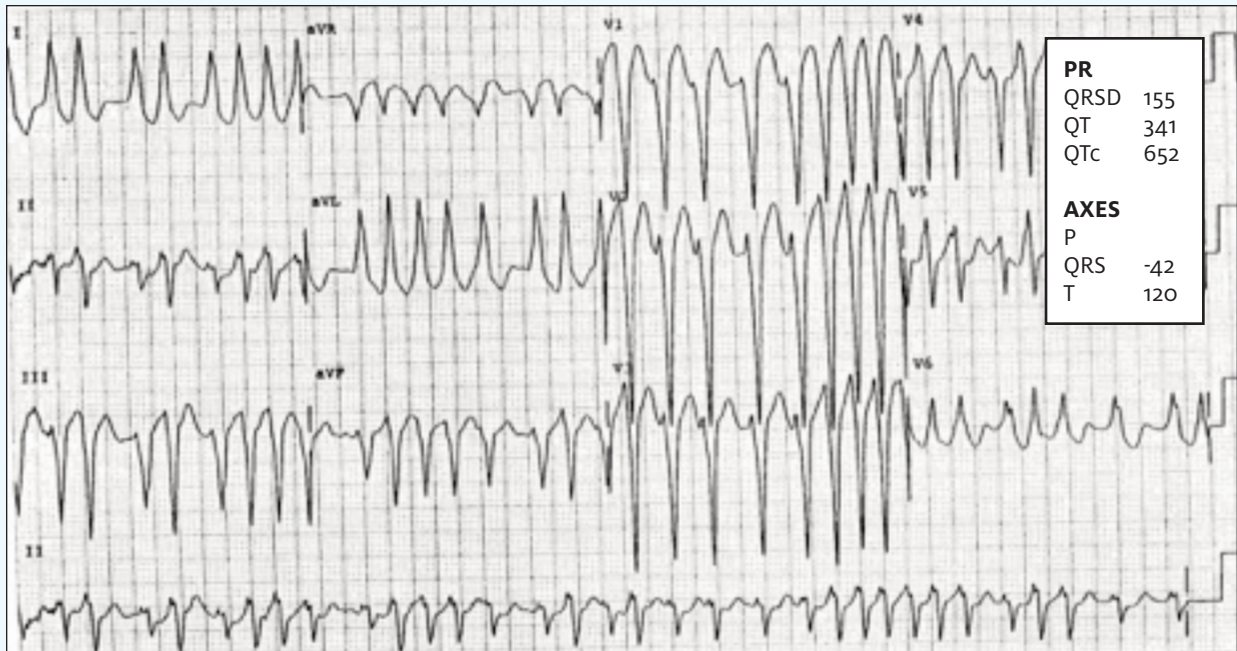


Figure 1.

## Case

A 52-year-old man presented to urgent care with a 2-day history of dizziness. He denies chest pain, syncope, shortness of breath, or diaphoresis. He is not taking any medications, and has no noteworthy personal medical history.

Upon exam, you find:

**General:** Alert and oriented X 3, slightly pale

**Lungs:** CTAB

**Cardiovascular:** Irregularly irregular and tachycardic without murmur, rub, or gallop

**Abdomen:** Soft and NT, no pulsatile mass

**Ext:** No peripheral edema, pulses are 2+ and equal in all extremities

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

## THE RESOLUTION

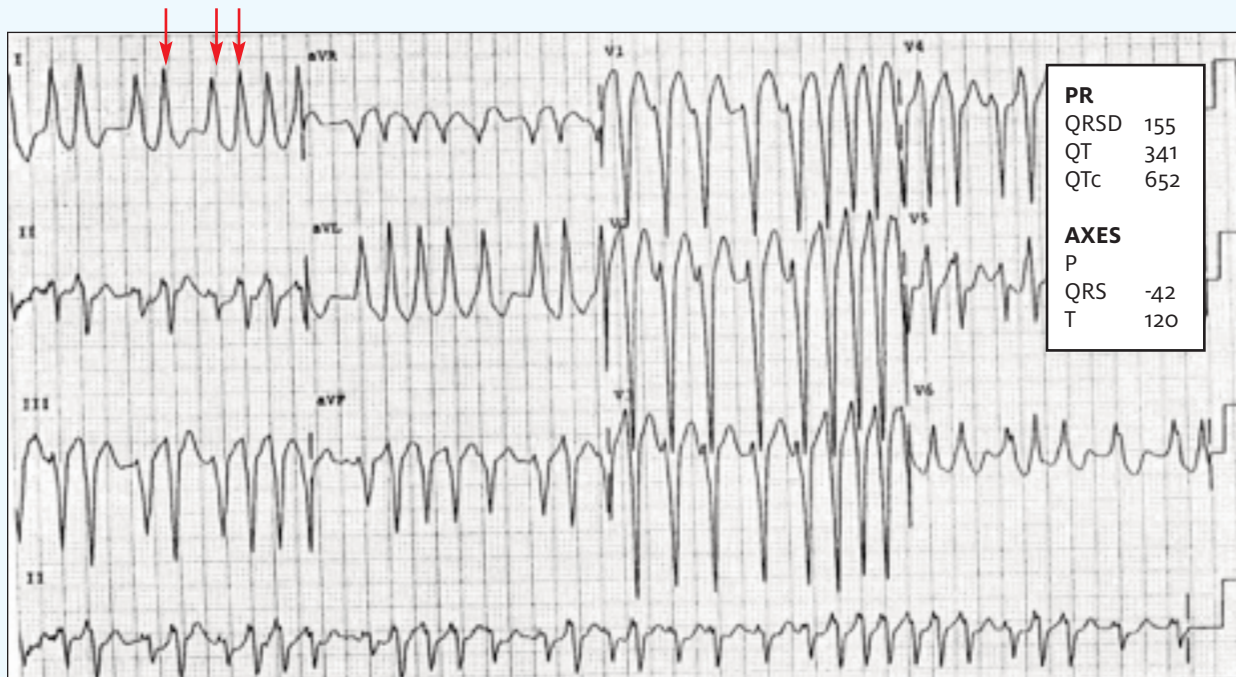


Figure 2.

**Differential Diagnosis**

- Inferior STEMI
- Premature ventricular contractions (PVCs)
- Ventricular tachycardia (VT)
- Left bundle branch block (LBBB)
- Atrial fibrillation with preexcitation (WPW)

**Diagnosis**

- The ECG reveals atrial fibrillation with preexcitation. What makes the ECG confusing is that the QRS complexes are wide, easily confused with ventricular tachycardia. The important qualifier is that the rhythm is “irregularly irregular.” This is atrial fibrillation with preexcitation likely from Wolf-Parkinson-White (WPW)
- An inferior STEMI should have ST elevation in leads II, III, and aVF, often with reciprocal changes. PVCs and scattered and not continuous
- LBBB should have a wide QRS, but will be regular.

**Learnings/What to Look for**

- WPW is a supraventricular re-entrant rhythm which may have a normal rate or fast rate with findings of a delta wave, short PR interval, and prolonged QRS complex
- Atrial fibrillation is a supraventricular rhythm characterized by an irregularly irregular rhythm; it may be a normal rate or have a rapid ventricular response (RVR)
- Patients with atrial fibrillation have an increased risk of stroke (CVA), so consideration needs to be given for anticoagulation
- Inquire about signs of ischemia such as chest discomfort, shortness of breath, diaphoresis
- Assess for hemodynamic instability such as hypotension, dizziness, or confusion

**Pearls for Urgent Care Management and Considerations for Transfer**

- Atrial fibrillation with WPW is a unique rhythm and is treated with procainamide. Typical AV nodal blockers may result in decompensation of the rhythm to ventricular fibrillation
- Unstable patients may require cardioversion
- Patient should be transported to the ED by EMS
- While awaiting EMS, place an IV (or two large-bore IVs) and put the patient on a monitor



## A 3-Year-Old Girl with Vesicles on Her Palms and Soles

Figure 1.



### Case

A 3-year-old girl was brought to urgent care with small widespread vesicles, including on her palms and soles. She had begun to develop painful oral vesicles, as well, and was refusing to eat. The rash began a few days after flu-like symptoms of fever, sore throat, cough, and headache.

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**

- Varicella
- Chikungunya
- Hand-foot-and-mouth disease
- Erythema multiforme

**Diagnosis**

The little girl was diagnosed with hand-foot-and-mouth disease (HFMD), an acute, self-limited viral illness predominantly caused by Coxsackievirus or other Enteroviruses. It is often characterized by an oral enanthem, accompanied by macular, papular, or vesicular rash on the hands, feet, buttocks, genitalia and thighs.

**Learnings**

- Typically, HFMD lasts from 7 to 10 days. The incubation period is approximately 3-6 days
- The course usually starts with mild fever, sore throat and mouth, cough, headache, malaise, diarrhea/vomiting, and occasional arthralgias. Small oral macules can develop into

vesicles and ultimately ulcerate 1 to 2 days after the start of systemic symptoms

- HFMD is highly contagious and is commonly transmitted in daycare centers, schools, summer camps, and hospitals. Most often, outbreaks usually occur from June to October
- Transmission occurs via the fecal-oral route and through secretions, including secretions of vesicular fluid and nasal/oral fluid
- Following infection, individuals can shed the virus via gastrointestinal passage for 4-6 weeks or via the upper respiratory tract for 3 weeks
- While HFMD affects children primarily, adults can also develop the disease

**Pearls for Urgent Care Management and Considerations for Transfer**

- Given that the infection is self-limiting, supportive care includes management of prodromal symptoms that may include fever, abdominal pain, fussiness, emesis, and diarrhea