INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 1

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 log on to https://jucm.scholasticahq.com and follow the instructions to upload your text and image(s).

A 21-Year-Old Male with Persistent Ankle Pain Following Trauma

Figure 1.

Case

The patient is a 21-year-old male who presents with persistent ankle pain 4 weeks after suffering a trauma. He fell while scaling the exterior of his dormitory, trying to gain entry into a second-floor window –because he'd locked his keys inside.

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

- Cyst formation
- Fracture/crack of the talus
- Ligament damage
- Osteochondral lesion
- Synovitis

Diagnosis

There is a thin curvilinear lucency along the lateral corner of talar dome. The patient has an osteochondral lesion (OCL).

Learnings

- OCL are focal areas of cartilage damage and injury of the adjacent subchondral bone
- OCL can occur after a single traumatic injury or as a result of repeated trauma. Common symptoms include prolonged pain, swelling, catching and/or instability of the ankle joint
- Persistent ankle pain despite appropriate treatment after several months may raise concern for an OCL

Pearls for Urgent Care Management and Consideration for Transfer

- Initial, conservative treatment consists of immobilization and instructions for non–weightbearing, with or without non–steroidal anti-inflammatory drugs, for up to 6 weeks
- The patient should be advised to consult an orthopedist or return to urgent care for follow-up
- Progressive weightbearing and physical therapy are often necessary to achieve optimal outcomes
- Rarely, surgery may be required ■

CLINICAL CHALLENGE: CASE 2

A 44-Year-Old Man with Intermittent Dizziness

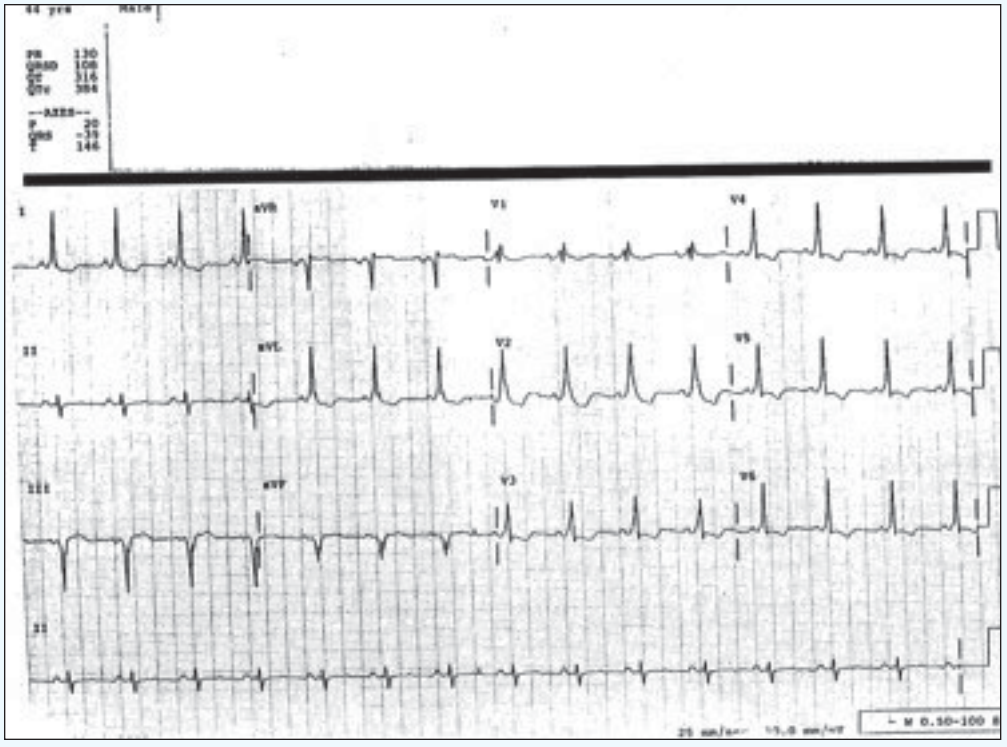

Figure 1.

Case

A 44-year-old man presents to your urgent care center complaining of intermittent dizziness. He denies shortness of breath, fever, chest pain, and syncope.

Upon exam, you find:

General: Alert and oriented

Lungs: CTAB

Cardiovascular: RRR without murmur, rub, or gallop

Abdomen: Soft and NT without r/r/g

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

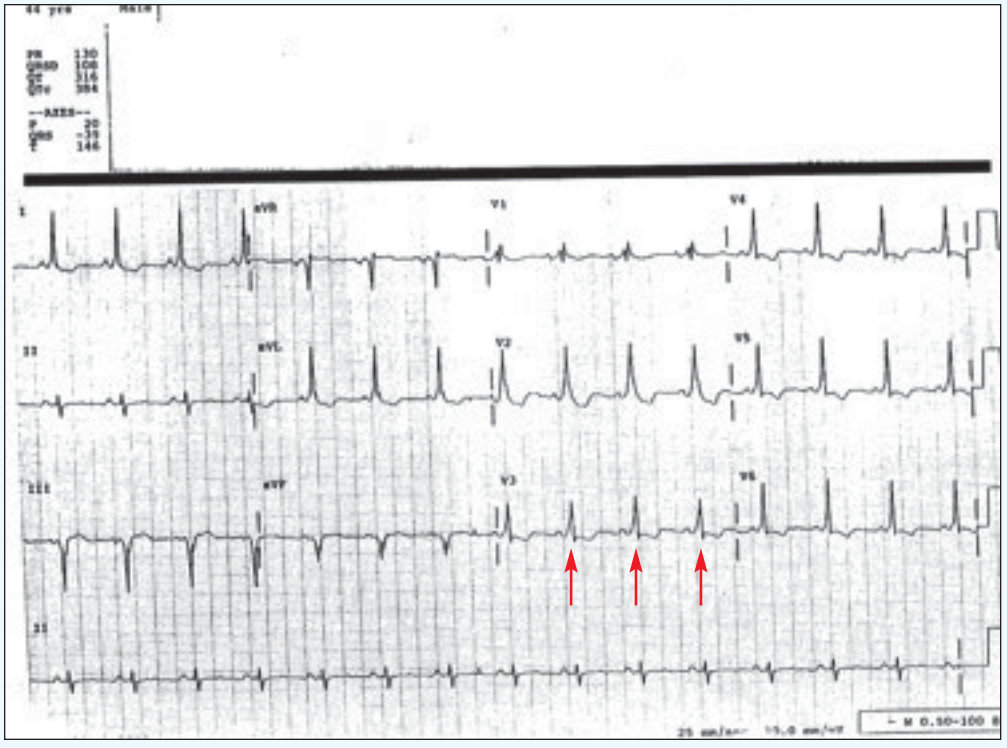

Figure 2.

Differential Diagnosis

- Sinus tachycardia
- AV block 1st degree
- Multifocal atrial tachycardia
- Wolff-Parkinson-White syndrome
- Third-degree AV block

Diagnosis

The patient was diagnosed with Wolff-Parkinson-White syndrome (WPW). The ECG reveals a gradual upsloping of the initial reflection of the QRS complex, called delta waves (see arrows). Additional ECG finds may include a shortened PR interval (<120 ms), a widened QRS complex, and ST/T wave changes.

Learnings

- WPW is a supraventricular re-entrant rhythm which may have a normal rate or fast rate
- Symptoms may include a sensation of palpitations, dizziness, chest discomfort, shortness of breath, fatigue, or syncope
- The findings of WPW may be seen incidentally on an ECG done for another reason (eg, pre-op)

Pearls for Urgent Care Management and Considerations for Transfer

- Compare to previous ECG, if available
- If a patient is asymptomatic with an ECG done for another reason, outpatient referral to cardiology is appropriate
- If the patient is symptomatic with chest discomfort, shortness of breath, tachycardia, hypotension, hypoxemia, or altered mental status, then immediate referral to the ED is indicated
- Management may include IV antiarrhythmics, cardioversion for an unstable patient, or radiofrequency ablation of the accessory pathway ■

CLINICAL CHALLENGE: CASE 3

A 3-Year-Old with Lesions on His Thumb

Figure 1.

Case

A mother brings her 3-year-old son to urgent care with multiple skin lesions on his thumb, which he frequently sucked for comfort. The grouped configuration of lesions was painful and had developed over the last 5 days to become vesicles.

Upon exam, you note that the boy has a nearly healed cold sore on his lip, pain in his wrist, and an elevated temperature.

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

- Herpetic whitlow
- *Mycobacterium marinum* infection
- Reactive arthritis
- Spider bite
- Contact dermatitis

Diagnosis

The correct diagnosis is herpetic whitlow, or distal digital herpes simplex virus (HSV). This is an uncommon infection occurring on the fingers or periungually, either from HSV1 or HSV2. In children, herpetic whitlow from HSV1 is more common. Tellingly, it's also more common in dental and medical personnel who do not regularly wear gloves. Toe involvement from toe sucking has been reported in infants. Digital-to-genital contact of HSV2 is also a mode of transmission.

Learnings

- After an incubation period of 3-7 days, during which there may be local erythema and edema, as well as tenderness, a group of vesicles appears around the perionychium and on the volar digital skin. These may progress to erosions, or may become pustular first and simulate a felon
- Lesions may involve the distal-free edge of the nail and extend into the nail bed, which often results in hemorrhage
- Swelling of the hand with lymphatic streaking may also occur
- Recurrences of herpetic whitlow may be seen, especially in immunosuppressed individuals

Pearls for Urgent Care Management and Consideration for Transfer

- Herpetic whitlow is self-limited, though topical treatments may provide symptomatic relief
- Tense vesicles may be unroofed to help alleviate symptoms
- Antibiotics should not be used except in in cases complicated by bacterial superinfection ■