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 email the relevant materials and presenting information to *editor@jucm.com*.

A 42-Year-Old Man with Thumb Pain After a Fall

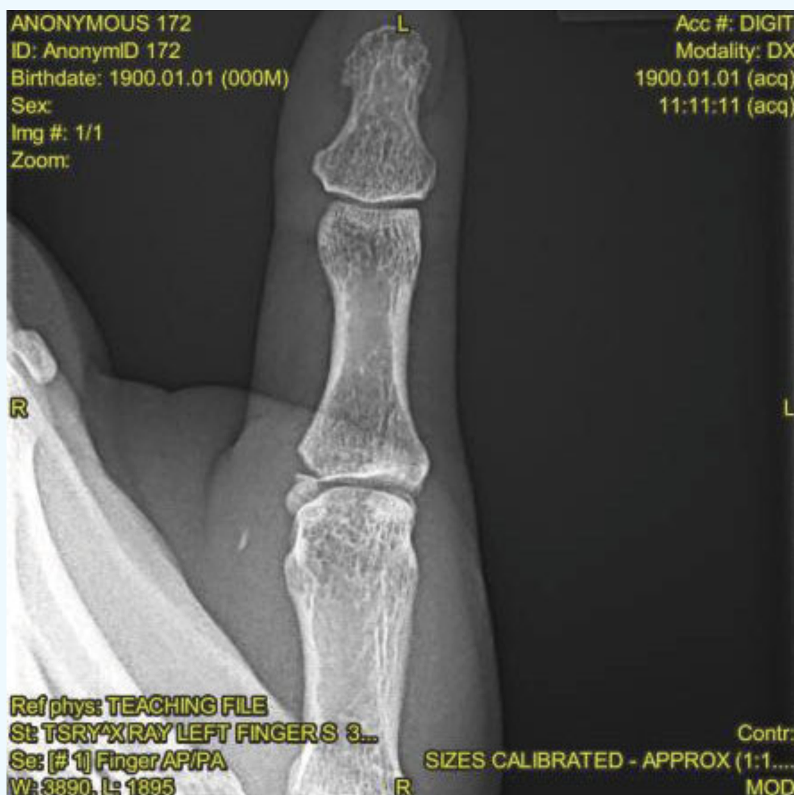

Figure 1.

Case

A 42-year-old man arrived at your urgent care center complaining of thumb pain a day after taking a fall while skiing. You find that the pain is worse with movement in any direction; in addition, he exhibits limited ability to grip anything using his thumb.

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

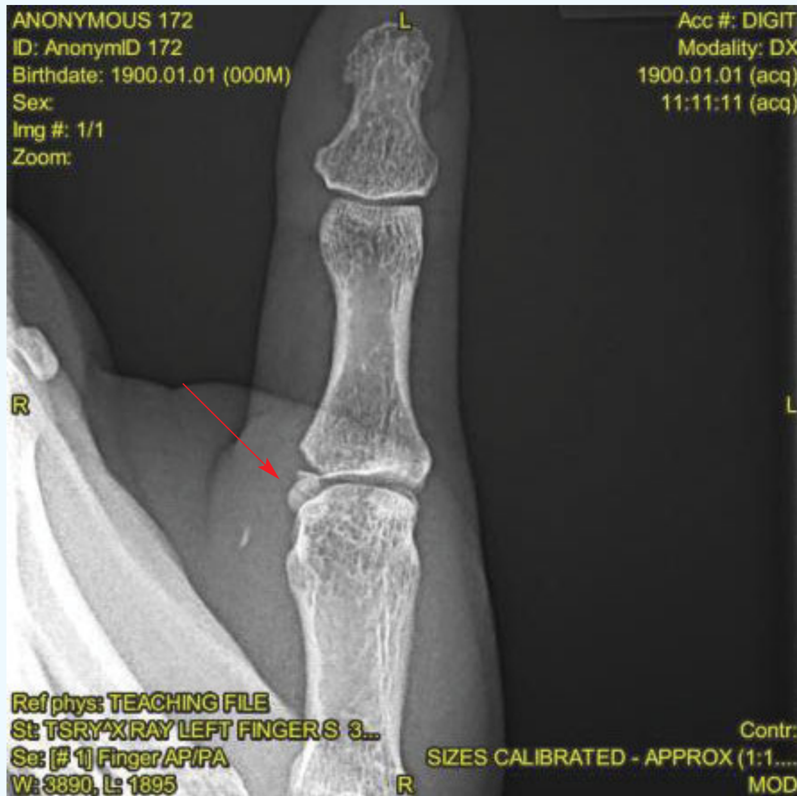

Figure 2.

Differential Diagnosis

- Avulsion fracture at the ulnar collateral ligament attachment
- Distal metacarpal fracture
- Extensor tendon rupture
- Metacarpophalangeal joint dislocation
- Proximal phalanx fracture

Diagnosis

There is a small defect at the ulnar corner base of proximal phalanx, seen on the AP view secondary to an avulsion fracture at the ulnar collateral ligament attachment.

Learnings

- Historically known as *gamekeeper's thumb*, this injury more currently is also referred to as *skier's thumb* because of the frequency with which it's associated with skiing accidents where the thumb is bent back by the ski pole
- This injury is often seen only on a good AP view of the thumb, and may not be visible on a standard hand x-ray exam

Pearls for Urgent Care Management and Consideration for Transfer

- Initial treatment is aimed at reducing swelling and pain, and immobilization of the affected joint
- Conservative treatment is possible for nondisplaced fractures.
- For displaced fractures, refer for surgical consideration. Patients are most likely to require surgical repair if the ligament injury is complete or displaced ■

INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 2

An 82-Year-Old Man with Palpitations

Figure 1.

Case

An 82-year-old man presents with complaints of palpitations. He denies chest pain, shortness of breath, dizziness, fever, vomiting, or confusion.

Upon exam, you find:

- **General:** Alert and oriented
- **Lungs:** CTAB
- **Cardiovascular:** Regular and tachycardic without murmur, rub, or gallop
- **Abdomen:** Soft and nontender without rigidity, rebound, or guarding

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

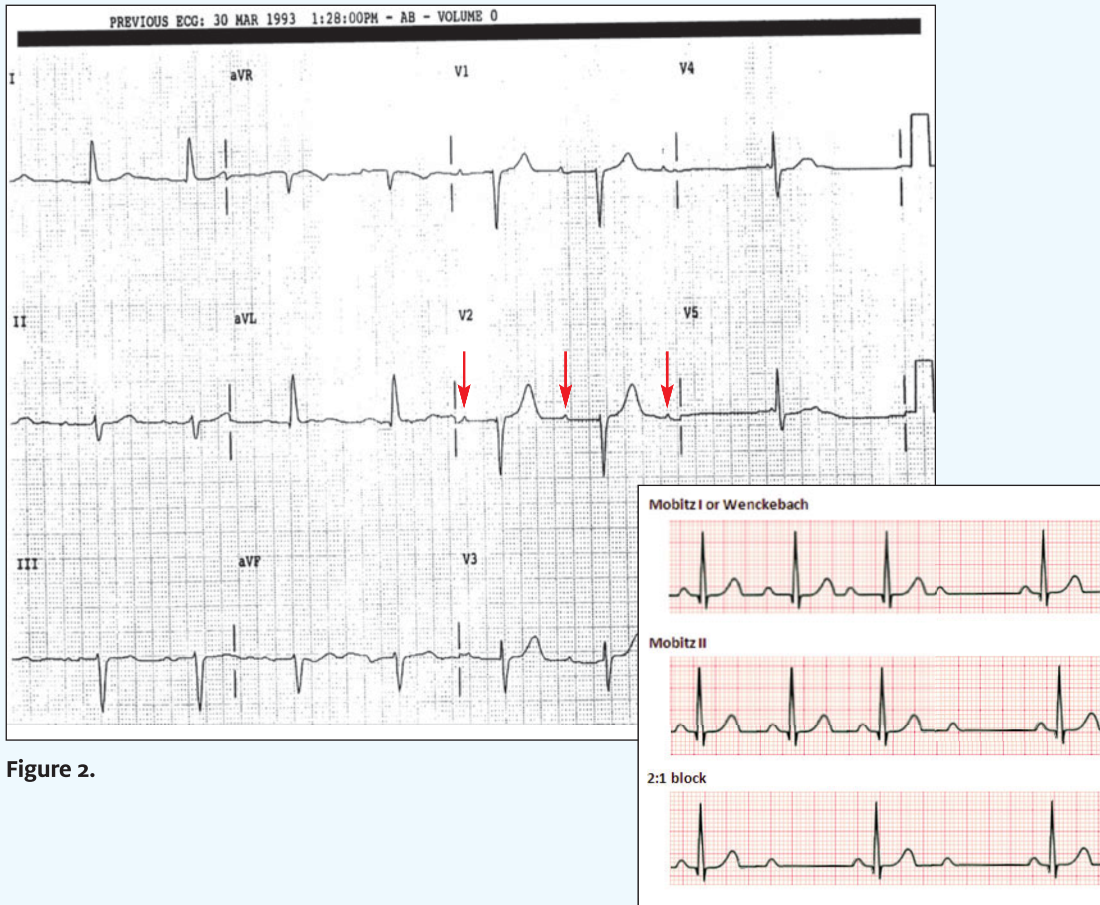

Figure 2.

ECG courtesy of Nicholas Patchett, MD.

Differential Diagnosis

- Sinus tachycardia
- AV block second degree—Mobitz I (Wenckebach)
- Multifocal atrial tachycardia
- Atrial fibrillation
- Third-degree AV block

Diagnosis

This patient has a Mobitz I (Wenckebach) second-degree AV block, revealed in the ECG by progressive lengthening of the PR interval until there is a nonconducted P wave. The first two arrows above show the PR interval lengthening; the last arrows a nonconducted P wave.

Learnings

- There is a progressive lengthening of the PR interval, until there is a nonconducted P wave (see arrows above)
- The P-P interval is typically constant
- Medical conditions which may cause Wenkebach include myocardial infarction, myocarditis, electrolyte abnormalities, and postcardiac surgery
- Medications include beta-blockers, calcium channel blockers, and digoxin

Pearls for urgent care management and considerations for transfer:

- Compare to previous ECG, if available
- Patients without identifiable cause after history do not require further testing
- Patients who are asymptomatic without an identifiable cause do not require treatment
- Patients who are *symptomatic* with tachycardia, hypotension, chest pain, shortness of breath, or altered consciousness should be transferred
- Distinguish from Mobitz II second-degree AV block and third-degree AV block, which are not benign rhythms ■

INSIGHTS IN IMAGES

CLINICAL CHALLENGE: CASE 3

A 22-Year-Old Man with an Itchy Patch of Skin

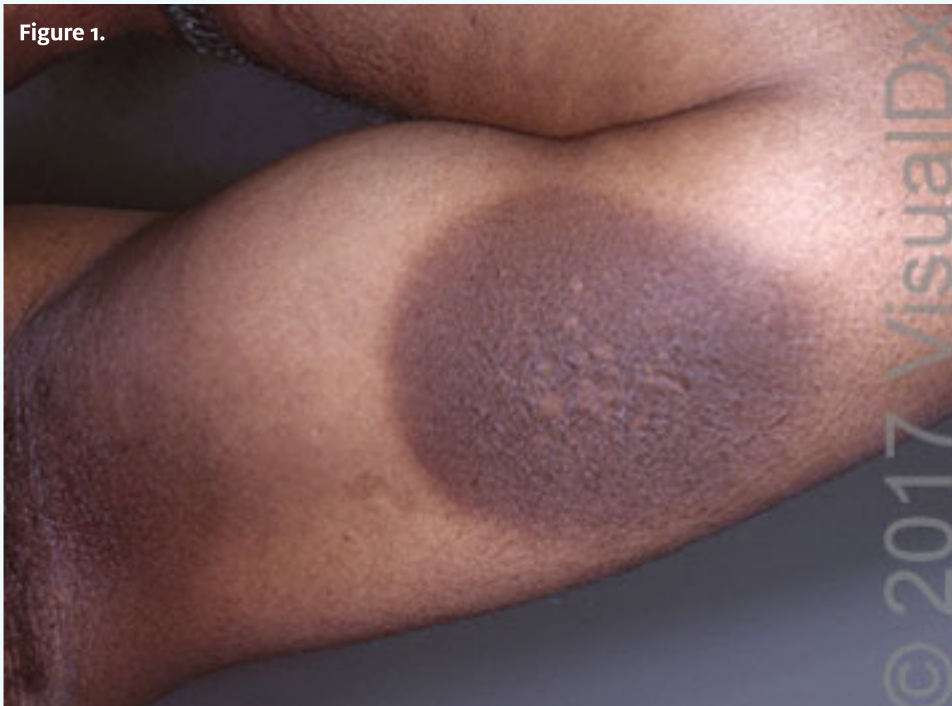

Figure 1.

Case

A 22-year-old man presents to urgent care with a round, hyperpigmented patch on his arm. He reports that it's "itchy," and that it appeared soon after taking a second dose of a sulfonamide he's taking for a persistent sinus infection.

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

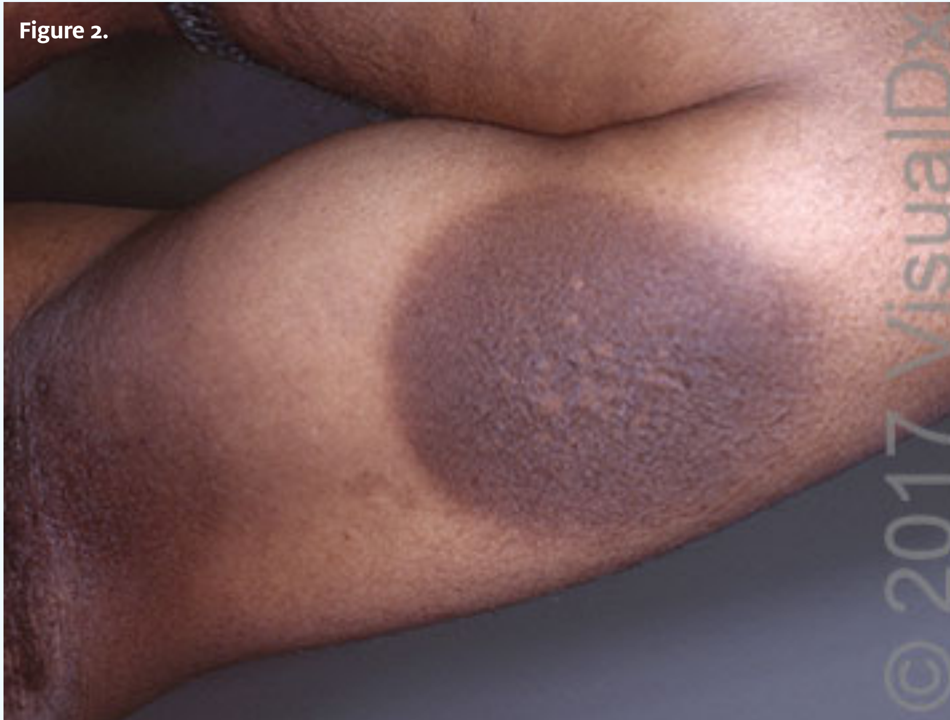

Figure 2.

Differential Diagnosis

- Contact dermatitis
- Drug-induced phototoxic reaction
- Fixed drug eruption
- Lichen planus

Diagnosis

This patient was diagnosed with a fixed drug eruption (FDE), a cutaneous drug reaction marked by sharply demarcated, typically round red patches that recur at the same body site each time an affected individual is re-exposed to the culprit drug.

Learnings

- Red patches associated with FDE may vary from 0.5 cm to several centimeters in size. Though usually asymptomatic, they may be associated with burning, pain, or pruritus.
- Any cutaneous surface may be affected, but the oral and anogenital mucosa are involved most frequently.
- Treatment consists of eliminating the causative drug, if possible. First-generation antihistamines, mild topical steroids, and moisturizing lotions may be helpful in reducing symptoms.
- Drug classes most commonly associated with FDE include antibiotics (especially sulfonamides, trimethoprim, fluoroquinolones, and tetracyclines), nonsteroidal anti-inflammatory medications (including naproxen, ibuprofen, and celecoxib), and barbiturates. Other specific implicated drugs include amoxicillin, erythromycin, metronidazole, fluconazole, paracetamol (acetaminophen), cetirizine, hydroxyzine, methylphenidate, oral contraceptives, quinine, and phenolphthalein. A nonpigmenting variant is seen with pseudoephedrine. ■