Physical exam challenges, part 2

See if you can determine what’s wrong with these patients.

1. An 80-year-old retired secretary comes to the ED because of difficulty having a bowel movement, saying that “it feels as if something’s coming out.” She denies fever, chills, or weight loss. She’s been constipated and has used an over-the-counter stool softener and increased her water intake. She denies pain with defecation. On physical examination of the anus, you see a doughnut of red tissue, with concentrically circular folds where the anus should be. What’s the most likely diagnosis?
   a. thrombosed external hemorrhoid
   b. anal fissure
   c. rectal prolapse
   d. rectal cancer

2. A 68-year-old retired kindergarten teacher has a swollen right arm. She recently had a mastectomy for right-sided ductal carcinoma in situ. What’s the most likely diagnosis?
   a. orthostatic edema
   b. lymphedema
   c. lipedema
   d. chronic venous insufficiency

3. In the ICU, you’re preparing to obtain an arterial blood gas specimen from a patient’s right wrist. First, you perform a physical examination maneuver to assess the patency of the ulnar artery. What’s the name of this test?
   a. Murphy’s test
   b. Allen’s test
   c. Phelan’s test
   d. obturator test

4. A 55-year-old construction worker has swollen feet and reports pain in both legs when walking. The pain eases when he rests for 10 minutes. He’s smoked two packs of cigarettes daily since age 15. On physical examination, you note that his dorsalis pedis pulses are decreased bilaterally in comparison with his femoral pulses. His feet are cool to the touch compared with his upper legs. He has no pedal edema. What’s the most likely diagnosis?
   a. deep vein thrombosis
   b. arterial insufficiency
   c. venous insufficiency
   d. peripheral neuropathy

5. A 62-year-old accountant has had a rash on his lower legs for several months. He denies fever or chills, but his skin itches. He’s tried over-the-counter creams without success. He’s smoked a half pack of cigarettes daily for the past 20 years. On physical examination, you note that the skin of his lower legs is hyperpigmented and bluish red. He has a shallow ulcer on his right medial calf. His dorsalis pedis pulses are 2+ bilaterally, and he has normal hair distribution on his lower legs. These findings are most compatible with which of the following diagnoses?
   a. deep vein thrombosis
   b. tinea pedis
   c. arterial insufficiency
   d. venous insufficiency

6. A 35-year-old postal worker complains of pain in her joints, particularly her fingers and wrists; both hands are affected. She says that she’s so stiff in the morning that she needs over an hour to get moving. For the past few weeks, her temperature has been as high as 100.5°F (38°C). You notice that she has fusiform swelling in her fingers and wrists bilaterally and that the proximal interphalangeal and metacarpophalangeal joints are tender to palpation. Based on the history and physical examination findings, what’s the most likely diagnosis?
   a. osteoarthritis
   b. rheumatoid arthritis
   c. gouty arthritis
   d. ankylosing spondylitis

7. A 55-year-old executive assistant reports that she’s had intermittent wrist pain for several months; over the last 2 weeks, it’s been present daily. She’s taken over-the-counter analgesics for the pain, which seem to help. She denies fever, chills, or rashes. On physical examination, you note pain and tenderness over the right wrist but not the left. She has a hard dorsolateral nodule on the distal interphalangeal joint of her right middle finger. The metacarpophalangeal joints are normal. What’s the most likely diagnosis?
   a. gouty arthritis
   b. rheumatoid arthritis
   c. systemic lupus erythematosus
   d. osteoarthritis

8. A 13-year-old junior high school student has unequal shoulder height, which her mother first noticed 2 weeks ago. The student has no history of birth trauma or recent injury. On physical examination, you note a lateral curvature to the spine that’s more pronounced with forward flexion. Based on this information, what’s the most likely diagnosis?
   a. normal spinal curvature
   b. kyphosis
   c. scoliosis
   d. lumbar lordosis

9. A new admission to the psychiatric unit is speaking loudly and walking about quickly but randomly. He states that he’s
being persecuted by those around him and that there’s a
conspiracy to lock him up and take all his money because
he’s the wealthiest man in the world. His condition has been
diagnosed as an acute schizophrenic episode. This type of
thought process is called
a. obsession. c. phobia.
b. depersonalization. d. delusion.

10. You’re assessing a 65-year-old retired lawyer who’s been
brought to the ED by his family for memory loss. You per-
form a mini-mental-status exam to assess his cognitive
function. Which of the following is considered a higher cog-
nitive function?
ans: a. calculating ability b. orientation
c. remote memory d. recent memory

11. A 70-year-old retired musician who’s had a stroke can
speak, but his words sound slurred or indistinct. You’d sus-
p ect
a. dysarthria. c. dysphagia.
b. dysphonia. d. aphony.

12. You’re evaluating a 55-year-old teacher for altered men-
tal status and are trying to distinguish between delirium
and dementia. All of the following statements are true about
delirium except which one?
a. Delirium has an acute onset.
b. Delirium always involves a disturbed level of consciousness.
c. Orientation is fairly well maintained but becomes impaired in
   the later stages of illness.
d. Attention fluctuates.

13. An 18-year-old college freshman comes to the ED for
evaluation of fever, headache, and neck stiffness. During
the physical examination, he’s resting quietly but his
face is flushed. His vital signs are temperature, 104° F
(40° C); pulse, 110; and BP, 105/70. He has no rashes.
When you flex his neck, his hips and knees flex in re-
sp onse, indicating meningeal irritation. The name of this
positive sign is
b. Brudzinski’s sign. d. Lachman’s sign.

14. A 22-year-old day-care worker complains of fever as
high as 103.5° F (39.7° C), headache, and neck pain. She has
photophobia and neck stiffness. During the physical exami-
nation, you flex her leg at both the hip and knee. When you
straighten her knee to elicit meningeal irritation, she reports
severe pain. The name of this sign is
b. Brudzinski’s sign. d. Lachman’s sign.

15. This is your first day on the medical ICU rotation. One of
the patients you’ve been assigned to is comatose. If he’s co-
atomose due to an opiate overdose, you’d expect to see
which type of reaction when you assess his pupillary re-
sp onse to light?
a. pupils equal and reactive to light, pinpoint b. pupils fixed and dilated
c. pupils unreactive to light d. one pupil fixed and dilated

16. A 25-year-old housewife comes to the ED with facial
paralysis. She states that her face is drooping and that she
can’t close her eye. She has a history of an upper respiratory
infection 2 weeks earlier. On physical examination, you note
that her forehead is smooth on the right side, her palpebral
fissure appears widened, her nasolabial fold appears flat-
tened, and she’s drooling. Based on this information, what’s
the most likely diagnosis?
a. cortical stroke c. Homer’s syndrome
b. Bell’s palsy d. stress reaction

17. A 75-year-old retired short-order cook complains of
weakness. He has a history of hypertension but stopped
taking his medication a few months ago because he
couldn’t tell that it was making a difference and it was too
expensive. On physical examination, you note that his BP
is 220/110. His tongue deviates to the left side. Which cran-
ial nerve (CN) would have to be affected for this finding
to be present?
a. CN I (olfactory) c. CN VII (facial)
b. CN V (trigeminal) d. CN XII (hypoglossal)

Answers
1. c. rectal prolapse
2. b. lymphedema
3. c. Allen’s test
4. b. arterial insufficiency
5. d. venous insufficiency
6. b. rheumatoid arthritis
7. d. osteoarthritis
8. c. scoliosis
9. d. delusion
10. a. calculating ability
11. a. dysarthria
12. c. Orientation is fairly well maintained but becomes impaired
   in the later stages of illness.
13. b. Brudzinski’s sign
14. a. Kernig’s sign
15. a. pupils equal and reactive to light, pinpoint
16. b. Bell’s palsy
17. C. CN XII (hypoglossal)

Source: Case Studies to Accompany Bates’ Guide to Physical
Examination and History Taking, FR Prabhu, LS Bickley, Lippincott
Williams & Wilkins, 2002.