Kaplan USMLE Step 2 prep: 6 cases where headache is a common symptom

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Over the years, the AMA has run dozens of example questions from Kaplan Medical. If you’re preparing for the United States Medical Licensing Examination® (USMLE®) Step 2 exam, you might want to know which questions are most often missed by test-prep takers. We’ve compiled six cases from Kaplan Medical involving headaches. Each question comes with an expert explanation of the answer. You can check out all posts in this series.

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Think you can answer these questions involving a headache as a common symptom? Find out now.

1 Determine cause of morbidity and death A 68-year-old man has been complaining of headache, dizziness, blurred vision and fatigue. On examination, he appears plethoric; ophthalmoscopic exam shows engorged retinal veins. His spleen is palpable 3 centimeters below the left costal margin. Complete blood count shows a hematocrit of 56 percent, normal red-cell morphology, increased red-cell mass, white blood cell count of 16,000/µL with increased basophils and eosinophils, and platelets at 700,000/µL. What is the major cause of morbidity and death in this illness?

2 How do you manage a throbbing headache? An 82-year-old woman comes to the physician because of a right-sided throbbing headache, which has occurred intermittently for two weeks. She has also had fatigue and intermittent jaw pain when chewing. The patient has a 25-year history of hypertension treated with
hydrochlorothiazide. She is in no distress. Her temperature is 98.8 °F (37.1 °C), blood pressure 125/83 mm Hg, pulse is 92 beats per minute, and respirations 20 per minute. Examination is remarkable for a weak, tender, but palpable right-sided temporal artery pulse, as well as tenderness to palpation on the right side of the face. What is the next step in management?

3. **Man awakened by headaches five days in row** A 35-year-old man has had nocturnal attacks of severe periorbital headache for the past five days. Each episode awakens him at night within two hours of falling asleep, lasts for less than an hour and is associated with ipsilateral rhinorrhea and lacrimation. There is no family history of similar headaches. Careful evaluation does not reveal any objective evidence of neurologic dysfunction. The pupils are equal and normally reactive to light. His temperature is 37° C (98.6° F), blood pressure is 125/75 mm Hg, and pulse is 72 beats per minute. What is the most likely diagnosis?

4. **Fever, headache, confusion and jaundice** A 40-year-old woman is admitted to the hospital because of fever, headache, confusion and jaundice for one week. She underwent hysterectomy two months ago and began estrogen replacement therapy with ethinyl estradiol and a progestin. On admission, her temperature is 38.7°C (102°F), blood pressure is 140/90 mm Hg, pulse is 98/min, and respirations are 20/min. She is disoriented to time and place. Physical examination reveals jaundiced sclerae and skin, purpura on the trunk and bleeding gums. A stool guaiac test is positive for occult blood. Blood and urine cultures are negative, but urinalysis reveals hemoglobinuria. What is the most likely diagnosis?

5. **Man has worsening symptoms** A 32-year-old man comes to his physician with one year of worsening nausea, abdominal pain, constipation, diffuse bone pain, and intermittent headaches. The patient has a 10 pack-year history of smoking and denies use of alcohol or recreational drugs. His blood pressure is 130/80 mm Hg, pulse 90 per minute, respirations 18 per minute, temperature 37°ordmC (98.6°ordmF). The exam shows dry mucous membranes and mild left lower quadrant abdominal pain on deep palpation. What is the most appropriate next step in the management of this patient’s current condition?

6. **Two days of fever, headache and confusion** A 65-year-old man is brought to the emergency department because of a two-day history of fever, headache and confusion. He has a history of prostate cancer, type 2 diabetes mellitus, and
hypertension. Current medications include lisinopril and metformin. He appears confused. His temperature is 39.7° C (103.5° F), blood pressure is 120/84 mm Hg, and pulse is 102 beats per minute. Examination shows neck stiffness. A lumbar puncture is performed. Gram stain of the cerebrospinal fluid shows lancet-shaped, gram-positive diplococci. What is most appropriate pharmacotherapy?

For more prep questions on USMLE Steps 1, 2 and 3, view other posts in this series.