JNP

# A Patient With Persistent Headache and Numbness

Susan Alex, MS, APRN, Susan Chaney, EdD, APRN, and Catherine Hill, DNP, APRN

## INTRODUCTION

Headache is a very common disorder and often can be a presenting symptom for many other neurologic disorders. Due to its commonality, several other serious disorders that have similar presentations can be misdiagnosed or left untreated. A very thorough history and physical can often provide information for correct diagnosis and timely management.

## CASE PRESENTATION

Ms. AB is a 24-year-old, right-handed, Caucasian female with past medical history of pseudotumor cerebri and migraine, who presented with a 1-week history of intermittent, dull frontal headache. Initially, she was able to manage her headaches with over-the-counter ibuprofen, as needed, and rest. Her migraines had been well controlled for > 1 year, since she started taking zonisamide for pseudotumor cerebri.

Two days after the initial headache, she had the "worst headache of her life," when she presented to a local emergency department (ED). She also had transient visual obscurations, associated numbness on her right side, leg itching, and involuntary movements in her right arm and leg, which her mother described as "seizurelike." The whole episode lasted for about 15-20 minutes. She denied having any change in level of consciousness, nausea, vomiting, or any focal weakness. She was diagnosed with tension headache and was discharged home on ibuprofen. Her headaches during these episodes were clearly different from her usual frontal headaches. She had not been having any aura with her usual frontal migraines. The following day, she had another seizurelike episode and numbness that spread to both of her legs and to the other arm. She was again evaluated in an ED, where computed tomography (CT) of the head was normal and she was started on levetiracetam and butalbital/acetaminophen/caffeine. She was discharged home with instructions to follow-up with her primary care physician (PCP). The next day, she saw her PCP, who referred her for higher level care.

Her past medical history included chronic migraine headache, pseudomotor cerebri, asthma, and menorrhagia since age 16. She was on oral steroids and mometasone furoate inhalation for asthma, zonisamide for pseudomotor cerebri, oral contraceptive pills for menorrhagia and ibuprofen for headaches. Her family history was unremarkable, except for a history of 2 miscarriages for her mother in the first trimester. She was a single, full-time law student, social drinker, had never smoked, and denied any illicit drug use. She denied any fever, chills, chest pain, dizziness, cough, shortness of breath, abdominal pain, nausea, vomiting, urgency, frequency, or dysuria. Her pertinent positive review of systems included headache, transient visual disturbance, numbness, and 2 "seizurelike" episodes. She denied any weakness.

## PHYSICAL EXAM

Her vital signs were stable and as follows: blood pressure 101/59; pulse 44 beats/min; temperature 36.6°C (97.9°F, temporal artery); respiration 16 breaths/min; saturation of peripheral oxygen 97%; weight 198 lb., 6.6 oz. (90 kg); and body mass index 33.02 kg/m$^2$. At admission, it had been 4 days since her last menstrual period.

## NEUROLOGIC EXAM

She was awake, alert, oriented to person, place, time, and situation, and was a coherent historian with a good fund of knowledge. Her speech was clear and cranial nerves II-XII were intact. Her sensation was intact and she had 5/5 strength bilaterally (according to the Medical Research Council scale), and no drift. Coordination findings showed finger-to-nose and heel-to-shin intact bilaterally. Reflexes were 2$^+$ throughout. Plantar response showed down-going

toes bilaterally and normal gait. Her cardiac exam showed regular S1and S2 sounds; telemetry patterns with normal sinus rhythm; clear chest, with no wheezing or rales; a soft, nondistended abdomen; and bowel sounds positive in all 4 quadrants.

Questions to consider:

1. What initial routine diagnostic tests should be considered?
2. What are the possible differential diagnoses?
3. Based on the information, what is the possible diagnosis?
4. What are the possible treatment options available?
5. What important patient and family education is required?
6. What is the recommended follow-up for this individual?

Think you know answer to these questions? Test yourself and the go to page e29 to read the answers