1. A 15-year-old boy developed a left Bell’s palsy over the course of 1

week. He was treated with acyclovir and prednisone. Over the next 3 months

he seemed to recover almost fully. However, he has noticed involuntary

twitching at the left corner of the mouth each time he tries to blink the left

eye. This is most likely caused by which of the following?

a. A habit spasm

b. Cerebellar damage producing impaired coordination

c. Aberrant regeneration of the facial nerve

d. Trigeminal neuralgia

e. Focal seizures

The answer is c. (Victor, p 1452.) After injury to the facial nerve, regenerating

fibers may be misdirected. This is especially common with Bell’s palsy

(idiopathic facial weakness). Aberrant regeneration is possible only if the

nerve cell bodies survive the injury and produce axons that find their way to

neuromuscular junctions. Fibers intended for the periorbital muscles end up

at the perioral muscles, and signals for eye closure induce mouth retraction.

With a habit spasm or idiopathic tic, similar movements may occur, but the

movement disorder would not be linked to facial weakness

2. A 35-year-old woman presents with slowly evolving left arm ataxia,

left-sided head tilt, dysarthria, and left facial weakness. The patient denies

vertigo, tinnitus, or hearing loss. MRI reveals a posterior fossa mass that lies

close to the bone and enhances with contrast. Which of the following is the

most likely explanation for this lesion?

a. Cerebellar infarction

b. Cerebellar hemorrhage

c. Meningioma

d. Schwannoma

e. Astrocytoma

The answer is c. (Victor, pp 692–693.) Any type of stroke in the cerebellum

would be expected to evolve over the course of hours, rather than

days or weeks. With signs and symptoms that evolve slowly, a neoplasm is

more likely. Because there was no involvement of the eighth cranial nerve,

the most probable neoplasm is a meningioma. This tumor also appears to

arise from bone, another indication that it is most likely a meningioma.

3. A 60-year-old man is clinically suspected to have had a subarachnoid

hemorrhage. A lumbar puncture shows 7000 red blood cells in tube 1 and

7200 in tube 4. There are 9 white blood cells in each. The fluid is xanthochromic.

The opening pressure is 22 cm H2O. Which of the following is

the best next step in managing this case?

a. Arrange for a cerebral angiogram and call a neurosurgical consult

b. Give the patient a prescription for sumatriptan and send him home

c. Immediately give 2 g of intravenous ceftriaxone

d. Immediately start intravenous acyclovir

e. Repeat the lumbar puncture

The answer is a. (Victor, p 893.) This patient probably has a subarachnoid

hemorrhage and must be evaluated for an aneurysm. This does

not appear to be bacterial meningitis. It is not emergent that ceftriaxone

be given in this case. Sumatriptan is a treatment for migraine, and this

patient’s history and cerebrospinal fluid results do not support a diagnosis

of migraine. Repeating the lumbar puncture will not help with the diagnosis

or treatment. Intravenous acyclovir would be used to treat herpes

encephalitis. Although there are often red blood cells in the spinal fluid of

such patients, the overall history makes herpes encephalitis unlikely.