December 10th MKSAP Questions

1. A 65-year-old man is evaluated in the emergency department for a 24-hour history of difficulty walking and inability to urinate. He has hypertension treated with amlodipine.

On physical examination, vital signs are normal. Muscle strength is 4/5 for both hip flexors. Patellar reflexes are 3+ bilaterally. There are bilateral extensor plantar responses in the toes, decreased sensation to pinprick below the nipple line bilaterally, and a palpable bladder. Upper extremity reflexes are 2+ in both biceps. Arm strength is normal. Gait is ataxic.

Which of the following is the most appropriate diagnostic to order next?

A. CT myelography
B. MRI of the brain
C. MRI of the lumbosacral spine
D. MRI of the thoracic spine

2. A 70-year-old woman is evaluated in the hospital for the recent onset of severe back pain and gait ataxia. Extensive-stage small cell lung cancer was diagnosed 1 month ago. Metastases to brain, liver, and adrenal glands were noted. She has decided to forego active therapy and has opted for comfort care. Until the past week she has experienced only modest pain. Her other medical problems include chronic kidney disease, diabetes mellitus, hypertension, and oxygen-dependent COPD. Medications are oral morphine, losartan, hydrochlorothiazide, metformin, albuterol, and tiotropium inhalers. Her predicted life expectancy is 3 months.

On physical examination, vital signs are normal. She has a wide-based gait and poor vibratory and position sense in the feet. Muscle strength testing shows 4/5 bilateral hip flexion.

MRI of the thoracic spine reveals two contrast-enhancing masses involving the posterior vertebra and dura at T3 and T8. Both lesions cause cord compression with increased T2 signal in the cord.

Which of the following is the most appropriate treatment?

A. Glucocorticoids, surgical decompression, and radiotherapy
B. Glucocorticoids and radiotherapy
C. Glucocorticoids and surgical decompression
D. Radiotherapy and surgical decompression

3. A 74-year-old woman is evaluated in the hospital at 2:00 AM for agitation. She was admitted 3 days ago with acute diverticulitis. Over the last 24 hours, the patient has been alternately agitated or drowsy, sometimes confused when awake, and tonight has experienced visual hallucinations. Her only other medical problem is long-standing depression treated with paroxetine, which has been discontinued. Medical records indicate she does not drink alcohol. Her current medications include oxycodone, scheduled every 6 hours, and piperacillin-tazobactam.

On physical examination, temperature is 37.2 °C (99.0 °F), and the remaining vital signs are normal. Oxygen saturation is 97% with the patient breathing ambient air. The abdomen has diminished but present bowel sounds, and there is mild tenderness to palpation without guarding in the left lower quadrant. The remainder of the physical examination is normal. The patient is alert and vigilant but inattentive to questioning and demonstrates disorganized thinking.

An order is written to hold the oxycodone.

Which of the following is the most appropriate next step in management?

A. Diphenhydramine
B. Lorazepam
C. Paroxetine
D. Zolpidem
E. No additional Treatment

4. An 84-year-old man is evaluated for an 18-month history of increasing forgetfulness and one episode of getting lost while driving on a familiar route. He lost his car keys and had to have a new set made. He lives with his spouse and is independent in all of his instrumental and basic activities of daily living. He and his spouse report no signs and symptoms of depression. In high school and in college he was on the boxing team. He is otherwise well and takes no medications.

On physical examination, vital signs are normal. His Montreal Cognitive Assessment score is 21/30, with difficulty copying the cube, recalling the five words, and naming the day, date, and month noted.

Depression screening is negative.

Brain MRI shows significant hippocampal atrophy bilaterally with minimal white matter hyperintensities.

Which of the following is the most likely diagnosis?

A. Alzheimer’s Disease
B. Mild Cognitive Impairment
C. Traumatic Encephalopathy Syndrome
D. Vascular Impairment

5. An 82-year-old woman is evaluated for an 18-month history of progressively worsening repetitive questioning, one episode of getting lost while driving on a familiar route, and repeated instances of losing her cell phone. She lives alone and is independent in all of her basic activities of daily living, except that her daughter has automated her finances because of some errors.

On physical examination, vital signs are normal and other findings are unremarkable. The Mini–Mental State Examination score is 23.

An MRI of the brain shows significant hippocampal atrophy bilaterally with minimal white matter hyperintensities.

Which of the following is the most appropriate treatment?

A. Donepezil
B. Ginkgo Biloba
C. High dose Vitamin E
D. Memantine