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**Questions and Answers**

*Question #1.* A 71-year-old man with a 5-year history of HIV and medication noncompliance presented with oral thrush and dysphagia to his physician. The patient was placed on fluconazole and had blood tests taken. One week later, the patient continues to have dysphagia and begins complaining of recurrent substernal chest pain. His CD4 count is  $42/\text{mm}^3$ . What is the likely diagnosis?

- Resistant *Candida albicans*
- CMV coinfection
- Gastroesophageal reflux disease
- Herpes simplex virus coinfection

*Answer:* b

*Candida albicans* is the most frequent esophageal infection in AIDS. Oral thrush is usually associated with concurrent esophageal candidiasis. Patients with esophageal candidiasis usually complain of dysphagia and, rarely, odynophagia. When a patient has odynophagia without exhibiting improvement of symptoms, CMV coinfection is the most likely diagnosis. CMV causes mucosal ulcerations and, therefore, presents with odynophagia. Upper endoscopy reveals extensive large, deep ulcers. Most patients have late-stage disease, often with a CD4 count less than  $50/\text{mm}^3$ . HSV esophagitis, although possible, is much less frequent than CMV esophagitis. In contrast with CMV esophagitis, these ulcers tend to be shallow.

*Question #2.* A 66-year-old woman presents with epigastric abdominal pain, nausea and vomiting of 3 days duration. The patient is HIV positive and is compliant with her antiretroviral therapy, composed of didanosine, emtricitabine, and atazanavir. She drinks a glass of wine with dinner daily. On labs her amylase levels were 3 times above the upper limit of normal. She has epigastric tenderness

on physical exam. What is the most likely cause of the patient's pancreatitis?

- Didanosine
- Alcohol
- Emtricitabine
- Atazanavir

*Answer:* a

Didanosine is an adenosine analogue that is administered in a delayed-release enteric-coated form. Although an effective HIV treatment option, didanosine can cause pancreatitis, hyperamylasemia, and severe pancreatic toxicity. Didanosine should not be prescribed to patients with a history of pancreatitis because it increases the risk of recurrent pancreatitis.

*Question #3.* A 74-year-old man presents to the hospital with right upper quadrant pain, fever, nausea and vomiting of 1 day duration. He is HIV positive, with CD4 count of  $77/\text{mm}^3$ . ERCP demonstrates papillary stenosis combined with sclerosing cholangitis. What is the most likely organism responsible for this patient's presentation?

- Herpes simplex virus
- Mycobacterium avium-intracellulare*
- Histoplasma capsulatum*
- Cryptosporidium parvum*

*Answer:* d

Based on the ERCP findings and CD4 count of less than  $100/\text{mm}^3$ , the patient most likely has AIDS cholangiopathy (AC). *Cryptosporidium parvum* is the most common organism associated with AC. Other pathogens found in AC include cytomegalovirus, *Giardia lamblia*, *Mycobacterium avium-intracellulare*, *Cyclospora cayentanesis*, *Isospora belli*, *Histoplasma capsulatum*, and microsporidium. ERCP is the most definitive test to diagnose AC, as well

as a therapeutic means to provide symptomatic relief to patients with papillary stenosis.

*Question #4.* Over the past 10 years, the percentage of people 50 years of age and older living with HIV has been:

- a. Decreasing
- b. Stable
- c. Increasing
- d. Unknown

*Answer: c*

The prevalence of HIV infection in adults  $\geq 50$  years of age is rapidly increasing (25% in 2006, compared to 20% in 2001). With the advent of highly active antiretroviral therapy, the progression of HIV infection to AIDS and related deaths has dramatically declined providing patients with increased longevity.