

MCQ Answer: All of the above

MCQ Discussion:

The risk of pancreatitis is increased for the HIV/AIDS patients with lower CD4 cell counts (1). At low CD4 counts (i.e., < 200 cells/mm³), HIV patients are prone to opportunistic infections, of which many have been associated with pancreatic involvement. Medications for opportunistic infections prevention and treatment have also been associated with pancreatitis. Lastly, CD4 lymphocytes could be protective against leading to acute pancreatitis by preventing the acinar cell necrosis.

Pancreatitis is a well-described complication of both human immunodeficiency virus (HIV) and its associated antiretroviral therapy. For example, protease inhibitor-based treatments lead to insulin resistance and hypertriglyceridemia (2). The latter is usually severe and difficult to control, and may trigger episodes of acute pancreatitis.

Several studies have found non-white race to be a significant risk factor for development of pancreatitis in HIV-positive patients (relative risk is 39 to 54 times higher for non-whites compared to Caucasians) (3).

The female sex has been implicated as a risk factor for pancreatitis in HIV/AIDS patients (3). The differences in BMI, fat composition, hormonal status, drug disposition and metabolism are suggested to play a role.

References:

1. Ueda T, Takeyama Y, Yasuda T, Shinzeki M, Sawa H, Nakajima T, et al. Immunosuppression in patients with severe acute pancreatitis. *J Gastroenterol* 2006; 41: 779-784.
2. Montessori V, Press N, Harris M, Akagi L, Montaner JS. Adverse effects of antiretroviral therapy for HIV infection. *CMAJ*. 2004;170(2):229-38
3. Riedel DJ, Gebo KA, Moore RD, Lucas GM. A ten-year analysis of the incidence and risk factors for acute pancreatitis requiring hospitalization in an urban HIV clinical cohort. *AIDS Patient Care STDS* 2008; 22(2): 113-121.

Figure Legends:

1. Axial CT of the abdomen. Thin arrows show pancreatic calcifications and the thick arrow shows the main pancreatic duct dilatation.
2. Oblique CT of the abdomen. Thick arrow shows main pancreatic duct dilatations.