A Case of Rapidly Progressive Disseminated Cytomegalovirus Causing Acute Pancreatitis in the Setting of Acquired Immune Deficiency Syndrome

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INTRODUCTION: Widespread dissemination of opportunistic infections is increasingly recognized in AIDS, many times found on autopsy when causing gastrointestinal pathology. However, premortem acute pancreatitis caused by opportunistic infections is rarely diagnosed. CMV is a double stranded DNA with a reported prevalence of 80-100% (1). In an immunocompromised individual, disseminated CMV can cause a variety of pathology. We will discuss a middle aged female who was found to have acute pancreatitis in the setting of CMV viremia causing rapid deterioration.

CASE DESCRIPTION/METHODS: 45 year old El Salvadorian female presented with abdominal pain, nausea, vomiting and diarrhea. Lipase on admission was 134 U/L. CT showed evidence of acute pancreatitis, gastritis and colitis. Denied alcohol use and triglyceride levels were normal. An MRCP did not show any obstruction of the bile duct. Patient became febrile and HIV test was positive with high viral load and CD4 count less than 20. Patient was given antibiotics, and admitted to ICU for respiratory failure. Chest tube had purulent drainage from a GI bleed and EGD brushings showed candida that later grew S. viridans. It continued to drain 500 mL output daily. CT showed left basilar pleural fluid collection with abscess extending down the pancreatic tail, likely originating as an infected pancreatic pseudocyst. Pleural fluid amylase was 3,261 with lipase >12,000. Cardi thoracic surgery was consulted, and an intrapleural pigtail catheter was inserted. MRCP showed two pancreatic pseudocysts adjacent to the pancreatic tail with one collection communicating with the pleural effusion. EGD with EUS-guided fine needle aspiration of the cyst was done, not amenable to cytostomastasis. Somatostatin was given with marked reduction in output. He ultimately underwent ERCP with pancreatic duct stent placement.

DISCUSSION: Pancreaticopleural fistula (PPF) occurs in 0.4% of chronic pancreatitis, and arises from disruption of pancreatic ducts. Since symptoms are mainly pulmonary, diagnosis may be delayed up to an average of 5 weeks. Checking for pleural fluid amylase is key. There is no established cut-off value, but usually it is >10,000 U/L. This should be differentiated from exudate associated with acute pancreatitis that is less severe. CT, ERCP and MRCP have diagnostic sensitivities of 47%, 78%, and 80%, respectively. MRCP is the imaging of choice as it can visualize a fistula beyond strictures, pancreatic ductal structural changes, and small pseudocysts.