Cytomegalovirus-Associated Severe Fatal Necrotizing Pancreatitis in a Patient with Interstitial Pneumonitis Treated with Steroids: An Autopsy Case

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ABSTRACT

A 76-year-old man presented with high fever, and admitted to our hospital for scrutiny. Imaging modalities including chest X-P, CT, and MRI revealed interstitial pneumonia. Blood laboratory tests showed positive anti-nuclear antigen (x80), but collagen diseases were not identified. The patient was treated with steroids. Two months later, the patient developed acute abdominal pain. Serum laboratory tests revealed elevated amylase (1,296 IU/L), and CT demonstrated acute pancreatitis. The patient died of multiple organ failure due to the acute pancreatitis three days after the onset of acute pancreatitis. An autopsy revealed severe necrotizing acute pancreatitis. Numerous large inclusions of cytomegalovirus (CMV) were found in the acinar and ductal cells of the pancreas. Numerous CMV inclusions were also seen in the degenerated and necrotic pancreatic acinar cells. CMV-infected cells were immunohistochemically positive for CMV antigen, CMV early antigen, and CMV late antigen, indicating active replication and regression of CMV. The findings strongly suggest that severe CMV infection can occur after steroid administration, and that the CMV infection is the cause of the severe fatal acute necrotizing pancreatitis.