A peculiar case of fatal concomitant acute pancreatitis and fulminant hepatitis due to Disseminated Varicella Zoster infection

Dariush Shahsavari, Praneeth Kudaravalli, Kwabena Oware Adu-Gyamfi, John Erikson L. Yap, Viveksandeep Thoguluva Chandrasekar, Zain Sobani

Division of Gastroenterology and Hepatology, Medical College of Georgia, Augusta University, Augusta, Georgia

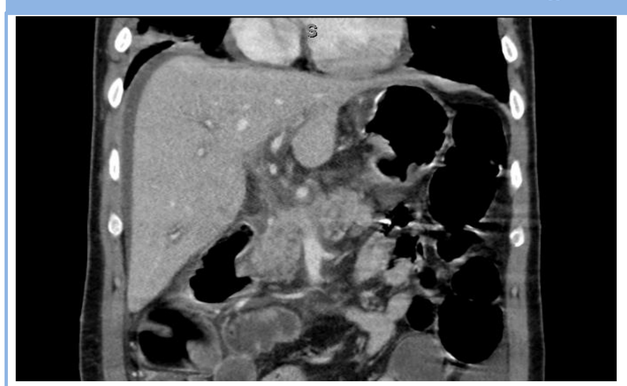
Introduction

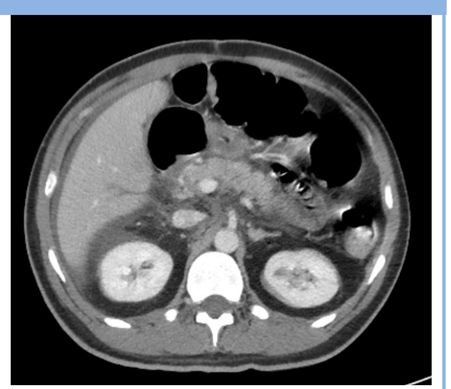
- Disseminated Varicella Zoster virus (DVZV) can be associated with elevated liver enzymes.
- DVZV-associated acute pancreatitis is rarely reported. Fulminant hepatitis due to DVZV is even less frequently reported and mostly deadly.
- We present a case of concomitant acute pancreatitis and fulminant liver failure due to DVZV in an HIV/AIDS patient.

Case Description

- 44-year-old Caucasian male with history of asthma, cholecystectomy, Nissen fundoplication, and traumatic splenectomy, with no history of smoking, alcohol, or drug use presented to ER with ongoing abdominal pain and a skin rash.
- Five days prior, he underwent upper endoscopy due to abdominal pain and was started on Fluconazole for candida esophagitis. His symptoms including abdominal pain, mostly epigastric, associated with non-bloody emesis and oral intolerance, got progressively worse, and he developed a pustulopapular rash noted around the left ear, on abdomen, back and extremities including palms with no pain or itching.
- Initial labs showed lipase 273 U/L (upper normal limit 51), AST 281 U/L, ALT 228 U/L, Alkaline phosphatase (ALP) 216 U/L, Total bilirubin 1.2 mg/dL, with negative viral hepatitis panel and syphilis serology. HIV was reactive (CD4 count of 14/ccu mm).
- Abdominal CT showed severe edematous pancreatitis. Ultrasound and MRI did not reveal any obstructions or ductal dilatation. Patient was treated with IV fluids and symptom control for acute pancreatitis. Elevated liver enzymes and rash were initially attributed to the recent fluconazole use.
- During admission, abdominal symptoms continued to get worse, and his mental status deteriorated. Rash became more diffuse spreading to the entire body.
- Skin shave biopsy showed VZV. Patient was started on IV acyclovir.
- On day 6, liver chemistries continued to increase with AST and ALT above 1000 U/L with total bilirubin of 11.9 mg/dL.
- Patient ultimately suffered a cardiac arrest and died 6 days after admission.

Images





CT scan shows evidence of edematous pancreatitis with peri-pancreatic fluid collection. Liver morphology and size is within normal limits and there is no evidence of liver cirrhosis on this image.

Discussion

- DVZV infection have been reported mainly in solid organ transplant and hematologic malignancies receiving chemotherapy.
- Our patient had history of splenectomy and previously undiagnosed HIV/AIDS underlying his immunocompromised status.
- There have been a few DVZV-associated acute pancreatitis cases reported, and fulminant hepatitis is even less frequent and has been often deadly.
- In conclusion, concomitant pancreatitis and fulminant hepatitis can occur in DVZV infections and need to be considered in the differential diagnosis.

Abbreviations: **DVZV** – Disseminated varicella Zoster