Acute Pancreatitis: Complication of Chicken Pox in an Immunocompetent Host

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Abstract

Chicken pox is a benign self limited disease. But it may rarely be complicated with acute pancreatitis in otherwise healthy patient. We present a case of varicella pancreatitis and its marked recovery with acyclovir.

Case Report

A 22 yrs old male was admitted through medical emergency with sudden onset severe pain in epigastrium. The pain was persistent and boring and was radiating to the back. It was associated with nausea and vomiting. It was preceded six days by fever and vesicular eruptions all over the body (mainly over the face, neck, chest, back, abdomen and genitalia). There was no past history of pancreatitis, alcoholism or biliary tract disease. There was a history of contact with chicken pox patient in recent past in his family.

On examination, he was conscious, dyspneic and febrile. His pulse was 120/minute, blood pressure 140/70 mm Hg and respiratory rate- 28/minute. Multiple small hyperpigmented, crusted lesions of different stages was found all over the body (Figure 1). There was mild distension of abdomen with guarding, tenderness over the epigastrium and liver mildly enlarged, soft, tender. Peristaltic sounds were absent. There was no lump palpable in the abdomen. Hemoglobin was 11 gm/dl, hematocrit 35.3%, WBC count 3,200/ cmm and platelet 1, 50,000/cmm. Serum lipase was 624 U/L, serum amylase- 824 U/L, total bilirubin 2.8 mg/dl (conjugated 1 mg/dl) and liver enzymes were mildly elevated (AST 110 U/L, ALT 91 U/L and alkaline phosphatase 291 U/L). Random blood glucose 170 mg/dl, serum LDH 250 IU/L. CRP was 2.4 mg/dl. He was negative for HBsAg and HIV.

After 2-3 days of admission, the patient had mild increase in breathlessness. \( \text{SpO}_2 \) was 85% on 3rd day and serum Ca²⁺ was normal (0.78mmol/L). Breathlessness improved by 5th day and \( \text{SpO}_2 \) became normal (95%) with conservative management. CT of the abdomen on 3rd day revealed bulky heterogenous pancreas with contrast enhancement and there was mild peripancreatic collection adjacent to the tail of pancreas along with mild ascites and bilateral pleural effusion (more on the left side) (Figure 2).

Pleural fluid (from left side) analysis was reddish, protein 4.4g/dl, glucose 83mg/dl, ADA 14.1U/L, total leukocyte count (TLC): 400/cmm, Neutrophil 80%, Lymphoid 20%, RBC(±). Pleural fluid amylase was 502 U/dl. Cytology was negative for acid-fast bacilli (AFB) and there was no malignant cell.

With treatment abdominal pain subsided gradually and appetite also improved by 6th day. Serum lipase and amylase were 204 U/L and 79 U/L respectively and serum bilirubin was 1 mg/dl. Tzanck test could not be done as the lesions already started crusting. Patient was discharged after 2 weeks with repeat ultrasonography revealing no serous or peripancreatic collection and normal pancreatic echotexture, normal C-reactive protein.

Discussion

Temporal relation of patient’s abdominal complaints and rise in serum amylase and lipase level to the development of characteristic skin eruption following exposure to a chicken pox patient, suggest chicken pox as the cause of pancreatitis. The risk of complication in chicken pox is highest in people with compromised immune status and in newborns and adults. Acute pancreatitis¹ is one of the rare complications of Varicella Zoster Virus (VZV).

Our patient presented with acute pancreatitis and jaundice which are very rarely found in varicella infection in healthy person and it responded very well with acyclovir injection. The cause of jaundice in this case could be either complication of varicella or pancreatitis as other causes of viral hepatitis and obstructive jaundice was ruled out.

In review of literature, most reports were from infants, children or immuno compromised adult.² Only three case-reports³ were found in literature for adults. It was first reported in 1988 by Kirschner S and Raufman J.⁴ So even an immuno
competent person with chicken pox may also be complicated with pancreatitis and early treatment with acyclovir can save the patient.

References


