




Letter: Dengue Fever Complicated by Acute Pancreatitis

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A 35-year-old male presented to emergency room in November 2019 with fever and abdominal pain for 8 and 5 days, respectively. He had no known comorbidities or addiction, and was a laborer by profession. The fever had an abrupt onset, documented up to 103.0°F, associated with rigors, body aches, and headaches. After 3 days of fever, he developed pain in the upper abdomen, which was severe (8/10 on the pain scale), piercing, radiating to the back, and aggravated by oral intake. The physical examination showed a conscious patient with sick look, fever (102°F), normal blood pressure (128/76 mm Hg), tachycardia (116 beats per minute), and respiratory rate (19 breaths per minute). Abdominal examination revealed diffuse tenderness especially at in the epigastric area but with no rigidity or guarding was noted. Bowel sounds were normal with no visceromegaly appreciated. Laboratory investigations were normal (including serum triglycerides and calcium profile) except for low platelets (1.06 lac/mL), and elevated serum amylase (936 U/L) and lipase levels (1,399 U/L). Serology for dengue using immunoglobulin M dengue enzyme-linked immunosorbent assay was positive. Ultrasonography of the abdomen revealed a mild amount of left-sided pleural effusion and bulky hyperechoic pancreas (swollen body 1.9 cm). No gallstones were found. Based on these imaging findings and clinical picture, dengue fever with acute pancreatitis (AP) and serositis was diagnosed. He was managed conservatively with intravenous fluids and analgesics. He was initially kept on only liquids orally for 48 hours and then started gradually on a soft diet which was tolerated with no worsening of pain. His symptoms were resolved completely after 6 days, he was

clinically and vitally stable hence was discharged on the 6th day. On the follow-up visit at 4 weeks, he was found healthy with no late complications.

Dengue viral fever (DVF) is an acute viral infection, transmitted by arthropods, caused by an ribonucleic acid virus of the Flaviviridae family.¹ The clinical presentation varies from being asymptomatic to hemorrhagic fever and shock syndrome.² The burden of DVF is high in Pakistan since during July to November 2019, 47,120 cases were reported with 75 deaths.³ DVF not only presents with typical symptoms but also with unusual manifestations involving various vital organ systems that include the gastrointestinal system (abdominal pain, hepatitis, cholecystitis, and AP in 41.3, 40.6, 6.66, and 1.33%, respectively), cardiovascular system (conduction anomalies and myocarditis in 6 and 3.33%, respectively), respiratory system (distress in 1.33%), and central nervous system (encephalitis in 0.66%).¹ Such rare presentations have been very challenging to diagnose and treat patients.⁴

Here we present a case of dengue fever which was complicated with AP. AP as a complication is reported in a very few case reports—perhaps it has been underreported and misdiagnosed.^{5–7} Proposed possible mechanism for this include direct viral invasion of the pancreatic cells, vascular compromise either due to vasodilatory or hemorrhagic shock, low platelets, edematous ampulla of Vater, and viral antigens inciting autoimmunity.⁷ Pancreatitis has high mortality if untreated and undiagnosed.⁷ We report this case because the presentation of dengue fever with AP is quite rare, but the possibility should be entertained in regions where dengue is a significant problem.

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All authors contributed equally to writing, literature search, reviewing the manuscript, and in patient care.

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The relevant data are provided in the manuscript.

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Conflict of Interest

None.

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