The Necrotic Mystery of Dapagliflozin

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Received: 2024-07-04

Accepted: 2024-09-09

Published: 2025-06-30

Background: Pancreatitis is clinically diagnosed by the presence of two or more of the following: epigastric pain which usually radiates to the back, elevated serum lipase or amylase, and consistent imaging findings. Complications may include insulin-dependent diabetes mellitus, failure to thrive, pancreatic pseudocysts, as well as necrotizing pancreatitis. Dapagliflozin, an SGLT-2 inhibitor commonly used in the management of type 2 diabetes mellitus, also reduces mortality in chronic kidney disease and heart failure. While dehydration and UTIs are common complications, acute pancreatitis may rarely occur. There are no reported cases of necrotizing pancreatitis, a life-threatening complication, caused solely by SGLT-2 inhibitors. We present the case of a 72-year-old female with necrotizing pancreatitis secondary to Dapagliflozin.

Case Presentation: A 72-year-old female with insulin-dependent type 2 diabetes managed with Dapagliflozin, coronary artery disease, and nonalcoholic steatohepatitis presented with dark brown emesis. Initial workup revealed anion gap metabolic acidosis, lipase of 16,000, and lactate of 2.7. CT and MRI demonstrated edematous pancreatitis with necrotic tissue. The patient denied any history of alcohol or tobacco use, gallstones, previous bouts of pancreatitis, and recent abdominal trauma. The home medications including insulin, allopurinol, clopidogrel, aspirin, and carvedilol were not associated with pancreatitis. After treatment with IV antibiotics, she was discharged but then returned with worsening symptoms. CT demonstrated progressive necrosis. She was treated with additional IV antibiotics, ERCP with sphincterotomy, endoscopic cystogastrostomy, and necrosectomy before discharge. She was again admitted with chest pain and hypotension. A CTA chest revealed bilateral pleural effusions and a gas-containing fluid collection. She received further IV antibiotics and necrosectomy before her final discharge.

Discussion: While studies suggest that SGLT-2 inhibitors are not associated with pancreatitis, the rising number of cases highlights the importance of reassessing their association (1). This potential for severe adverse effects emphasizes the need for careful monitoring and further research.

https://dx.doi.org/10.46570/utjms-2025-1426

Keywords: SGLT-2, Acute Pancreatitis, Necrotizing Pancreatitis, Pancreatitis, Diabetes

References

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