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Scientific report: a case of acute pancreatitis due to liraglutide

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Key words: Acute pancreatitis. Incretin-base therapies. Liraglutide. glp-1 analogues.

## Dear Editor,

Liraglutide is a long-acting glucagon-like peptide-1 (GLP-1) analog. GLP-1 analogues are used as a second option treatment for type 2 diabetes and weight management in obese patients (1). Data in the literature suggests an association between GLP-1 agonist use and acute pancreatitis (AP) (2). Furthermore, it has been suggested that acute pancreatitis is a potential complication of liraglutide therapy and liraglutide should be used cautiously in patients at risk of pancreatitis (3,4).

## **Case report**

This case reported herein was a 44-year-old female diagnosed with acute pancreatitis based on two of three criteria when she presented to the Emergency Department with epigastric pain, which radiated to her back. Amylase and lipase levels were also significantly elevated and the abdominal ultrasound was normal. Laboratory studies were otherwise unremarkable and there was no relevant medical history. She denied alcohol use, smoking, toxic habits and herbal remedies. She had no medication allergies and no relevant family history.



Liraglutide (1.2 mg/day) was started six months before admission for weight management. Viral hepatitis and an autoimmunity screening were also negative and she did not meet any Bedside Index of Severity in Acute Pancreatitis (BISAP) score criteria. Liraglutide was discontinued indefinitely and the patient was treated conservatively with a favorable clinical course. Serum pancreatic enzymes normalized on hospital day 4 and her symptoms ceased. A re-challenge test was not performed for safety reasons.

A probable causative relationship was established between liraglutide and the acute pancreatitis in this case, using the Naranjo scale (score of 7) (5). The absence of type 2 diabetes mellitus in our patient and the absence of other risk factors for acute pancreatitis means that liraglutide is a unique causative agent of AP in this case. This case was reported to the Food and Drug Administrations' MedWatch program.

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