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Case Report

A Case Report on Acute Medical Pancreatitis caused by Liraglutide Use.

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Case Report

A 23-year-old Caucasian female patient came to the emergency room complaining of nausea, vomiting and upper abdominal pain.

She was being treated for grade I obesity with a previous body mass index (BMI) of 32.17. He had been using topiramate 100mg/day, fluoxetine 20mg/day, bupropion 150mg/day for the last 12 months without symptoms, when liraglutide at a dose of 1.2 mg/day was introduced subcutaneously 7 days after the onset of symptoms.

In his previous and social history, he denied the consumption of alcoholic beverages, abdominal trauma, biliopancreatic surgeries or procedures, previous cases of pancreatitis or lithiasis, neoplasms, infectious and autoimmune diseases. She was unable to report on family history because she was adopted and did not know family members.

Laboratory tests on the date of diagnosis, on 12/11/2020, showed amylase values: 188 U/L (reference value between 25-125 U/L), lipase: 584 U/L (reference value between 12- 53 U/L) with other normal results (complete blood count, bilirubin, alkaline phosphatase, gamma creatinine, urea), with no involvement or organ failure.

The contrast-enhanced computed tomography exam of the same date showed, according to the report: “Slight fat barrier and prominent lymph node adjacent to the pancreatic head, which may represent an inflammatory and/or infectious process. Small amount of fluid in the bilateral pericolic gutter. Absence of images suggestive of calculi or dilation of the biliopancreatic pathways"

The patient was discharged from the emergency department with instructions to discontinue all medications (especially liraglutide), symptomatic, and referred for outpatient follow-up.

The elective laboratory exam of 12/14/2020 showed the following results: Anti-Nuclear Factor: non-reactive, calcium: 9.1 mg/dL, cancer antigen 19-9: 8.9 U/mL, carcinoembryonic antigen: 0 69 ng/mL, immunoglobulin G4 (IgG4): 82 mg/dL, and triglycerides: 143 mg/dL, albumin: 4.1 g/dL, globulin: 2.4 g/dL. On 12/21/2020, a new test was performed, being amylase: 71 U/L and lipase: 59 U/L.

The patient remained under follow-up without symptoms and with subsequent normalization of serum amylase and lipase values. After the condition, fluoxetine 20mg/day and bupropion 150mg/day were reintroduced with

excellent acceptance. Thus, after ruling out other causes, the drug etiology determined by the use of liraglutide was intuited.

Discussion

Liraglutide is a glucacon-like peptide analogue 1 (GLP1); is an incretin released into the bloodstream in response to nutrient intake. The drug has been used to treat type 2 diabetes mellitus and, more recently, has been approved for use in obesity.

The well-known causes of acute pancreatitis (AP) are: pancreatic ducal obstruction secondary to gallstones, metabolic (increased triglycerides or calcium), neoplastic, autoimmune; alcohol, post-endoscopic retrograde cholangiopancreatography (ERCP), infections, genetic causes, trauma, medications and idiopathic.

The obesity epidemic may also contribute to the increase in the global incidence of AP cases as it is a risk factor for cholelithiasis and hypertriglycyridemia. Diabetes and pancreatic exocrine insufficiency are common complications after an episode of AP.

In the case reported, the patient does not have diabetes or other BP-facilitating comorbidities other than obesity. Thus, the temporal relationship between the beginning of the medication and the appearance of symptoms, as well as the suspension of the drug and the resolution of the symptoms with laboratory normalization, support the hypothesis of the medication cause by the use of liraglutide; in addition to the fact that other etiologies were excluded according to the description of the case.

The subsequent reintroduction of fluoxetine and bupropion at the doses at which they were suspended, with no subsequent complaints, further reinforces the hypothesis of AP from liraglutide, although topiramate, as well as liraglutide, remained excluded.

The Naranjo questionnaire that determines the probability of adverse drug reaction was applied, obtaining a score of 5 points; fact that made the etiology of the case in question probable.

During 2007 and 2008, the Food and Drug Administration (FDA) monitored 36 cases of AP associated with the first GLP-1 analogue, exematib; at

The occasion recommended warnings about this risk, in addition to the inclusion of clinical and laboratory surveillance for its use and liraglutide. Subsequently, other studies demonstrated causality between PA and the use of liraglutide.

Final Considerations

The patient maintains clinical follow-up, asymptomatic. Further examinations will be performed in order to follow up on BP complications.

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