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Hypertriglyceridemia Indicating Acute Pancreatitis: A Case Report

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Abstract: *Acute pancreatitis (PA) is considered one of the potentially rare complications of severe hypertriglyceridemia (HTG). Multiple treatment modalities have been suggested for patients with PGA HTG, such as permanent removal of TG by plasmapheresis, the use of insulin and heparin to increase lipoprotein lipase activity and treatment with fibrates. Early recognition of severe HTG can prevent progression to multiple diseases such as acute pancreatitis.*

Keywords: Acute pancreatitis-Hypertriglyceridemia-Lipid metabolism-Plasmapheresis

Introduction:

Hypertriglyceridemia is the third most common cause of acute pancreatitis [1]. It is relatively rare and the diagnosis can be very difficult. However, this requires a high level of clinical suspicion with a good history as well as the presence of high levels of triglycerides (TG)
The treatment of this acute pancreatitis due to hypertriglyceridemia Involves reduction of lipid levels through the use of plasmapheresis, heparin and insulin infusions to increase lipoprotein lipase activity, and / or treatment with fibrates [2].

MATERIALS AND METHODS:

we have reported the case of a 37-year-old man having an episode of acute right diverticulitis as ATCD in 2018, put on ATB with good clinical improvement; having undergone an ileocoloscopy returning to normal Upon admission to our intensive care unit.

RESULTS:

The symptomatology was marked by intense epigastric pain with posterior irradiation associated with premature vomiting; and a deterioration of the general condition Clinical examination showed abdominal tenderness induced on palpation, normal hemodynamic state, normal respiratory state with 98% SpO2 in ambient air; and apyrexia.
The biological workup performed was in favor of pancreatitis with lipasemia at 714; hyperleukocytosis at 17,000 with a predominance of PNN 14660; hyperplatelet infection at 404,000; CRP at 29 and a correct HB level at 15 g / dl with liver function tests, in particular Aspartate aminotransferase (AST) and alanine aminotransferase (ALT) were normal and renal function strictly normal; with a calcium level at 97 and phosphoremia at 31.1 Ultrasound performed showing an alithiasis gallbladder with 8mm thick wall; overload liver and VBIH and VBP without abnormalities
Abdominal CT staging revealed stage D pancreatitis
As part of the etiological assessment, a lipid assessment was carried out in favor of a major hypertriglyceridemia with a level of 24.35g / l and total cholesterol at 4.03g / l; LDL 0.22g / l; HDL level is not been registered
The patient was diagnosed with HTG-AP. During hospitalization, the patient was kept fasting and placed on a continuous infusion of normal saline at a rate of 2.5 GHz. With analgesics by infusion and preventive anticoagulation; the endocrinologist considered a treatment based on fenofibrate 160 mg per day in the evening in addition to dietary measures: diet low in rapid sugar rich in fiber; and regular physical activity. The course was marked by clinical improvement in pain and vomiting and biological improvement in TGs to 2g / L; HDL at 0.34 and even a proven weight reduction of 3 kg.
One month later a follow-up abdominal CT scan was done returning normal

Discussion:

Although BP has multiple etiologies [3]. Hypertriglyceridemia is considered the third most common cause after gallstones and alcohol. It is the underlying cause of pancreatitis in 7% of the population [4]. Hypertriglyceridemia can lead to acute pancreatitis as a precipitating agent of pancreatitis or as an episodic agent of pancreatitis or as an epiphenomenon [5].

The secondary causes of hypertriglyceridemia are usually not sufficient to cause an increase in glucose level [6]. Usually not enough to cause a high level of TG and cause pancreatitis, thus necessitating the need for a pre-existing defect. Indeed, it is necessary to have a TG level greater than 1000 mg / dl (or 20 mmol / l) to induce acute pancreatitis.
Our patient was satisfied with our medical care.
Early measurement of serum triglycerides and pancreatic enzymes, such as lipasemia, improved the patient's condition.

CONCLUSION:

HTG-AP is a serious disease that requires prompt diagnosis and treatment. In our case, HTG-AP was managed with fenofibrate and heparin which prevented the progression of the complications of pancreatitis. Several studies are underway to assess the effectiveness of low dose insulin and plasmapheresis in the management of PAH.

Consent :

Informed consent was obtained from all participants included in the study.

Conflict of Interest :

The authors declared no conflict of interest.

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