Atypical Presentation and Progression of Necrotizing Acute Pancreatitis with Infection: a Case Report

Moisés Aarão Sarmento Ferreira[1], Alicia Maria Nascimento Batista [1], Jenny Greeyce Ji Soo Kim[1], Mariana Langanke Gonçalves [1], Michelle Ishida Chiang[1], Pedro Bittencourt Botelho[1], Pedro de Souza Lucarelli Antunes[1], José Cesar Assef[1]

1 – Faculdade de Ciências Médicas da Santa Casa de São Paulo, Disciplina de Cirurgia – São Paulo – Brasil

INTRODUCTION

Acute pancreatitis (AP) is an acute inflammatory process of the pancreas whose main cause is gallstones. AP can be divided into two broad categories (Atlanta classification): interstitial edematous AP and necrotizing AP, which is characterized by inflammation associated with necrosis of the pancreatic parenchyma and/or peripancreatic necrosis and is considered severe when associated with failure persistent organic. We describe here an atypical case of biliary AP, which rapidly evolved with necrosis and pancreatic infection. The absence of fever during the course of the disease and the need for exploratory laparotomy within 2 weeks of admission due to unresponsiveness to conventional treatment highlight the complexity of AP presentation and the failure of standard management to prevent death, motivating us to publicize this case.

CASE PRESENTATION

A 39-year-old man was admitted to the emergency room (ER) with a four hours ácute epigastric pain associated with vomiting. Physical examination suggested acute pancreatitis (AP). The first approach adopted was fasting, hydration and analgesia. The ultrasonography (USG) result suggested the biliary form of the disease and, in less than two days after admission, there was a significant decrease in the patient's general status, who had to be referred to the Intensive Care Unit (ICU) and started using antibiotics. Computed tomography (CT) results pointed to severe necrotizing AP with infection, despite the absence of fever, and, due to the rapid and unique development of the condition, exploratory laparotomy was performed.

DISCUSSION

The case described above is shown as a severe necrotizing AP that, in addition to having a completely atypical presentation, also reveals a rapid and devastating progression, when compared to cases of AP previously reported in the literature, thus leading to the adoption of an exceptional approach. Furthermore, it clearly demonstrates that even in the absence of relevant symptoms, a detailed investigation based on laboratory and imaging tests is necessary to identify and treat the disease early. In addition, the option for non-operative treatment in the first 2 weeks after the onset of symptoms, in an attempt to reduce mortality, was not effective, as the patient quickly developed an important infection that could not be reversed, evolving to death one month after admission.
The unique and unusual feature, in addition to the outcome of the case, not only highlights the severity of necrotizing AP, but also reveals the atypical appearance and progression of an infectious condition, even with the concomitant use of prophylactic antibiotics. This unique situation raises the question of when, in the course of the disease, the surgical approach is recommended to decrease mortality rates. Thus, taking into account the information presented, the relevance of sharing this case proves to be very valuable, and the question arises as to whether, in singular cases, standard procedures are able to prevent death.

REFERENCES

Boxhoorn L, Voermans RP, Bouwense SA, et al. Acute pancreatitis. Lancet. 2020;396(10252):726-734.

Rockenbach R, Russi RF, Sakae TM, et al. Profile of patients hospitalized with acute pancreatitis in the services of clinical gastroenterology and general surgery at Hospital Santa Clara, Complexo Hospitalar Santa Casa, Porto Alegre / RS, from 2000 to 2004. Arquivos Catarinenses de Medicina. 2006;35(4):25-35.

Ferreira AF, Bartelega JA, Urbano HCAS, et al.2015). Acute pancreatitis gravity predictive factors: which and when to use them? ABCD. Arquivos Brasileiros de Cirurgia Digestiva (São Paulo), 2015;28(3):207–211.

an Grinsven J, van Brunschot S, Bakker OJ, et al; Dutch Pancreatitis Study Group. Diagnostic strategy and timing of intervention in infected necrotizing pancreatitis: an international expert survey and case vignette study. HPB (Oxford). 2016;18(1):49-56.

Banks PA, Bollen TL, Dervenis C, et al. Classification of acute pancreatitis-2012: revision of the Atlanta classification and definitions by international consensus. Gut. 2013;62(1):102-11.

Leppäniemi, A., Tolonen, M., Tarasconi, A. et al.2019 WSES guidelines for the management of severe acute pancreatitis. World J Emerg Surg. 2019;13(14):27.

Working Group IAP/APA Acute Pancreatitis Guidelines. IAP/APA evidence-based guidelines for the management of acute pancreatitis. Pancreatology. 2013;13(4 Suppl 2):e1-15.

van Santvoort HC, Besselink MG, Bakker OJ, et al; Dutch Pancreatitis Study Group. A step-up approach or open necrosectomy for necrotizing pancreatitis. N Engl J Med. 2010;362(16):1491-502.

Forsmark CE, Vege SS, Wilcox CM. Acute pancreatitis. N Engl J Med. 2016;375(20):1972-81.

da Costa DW, Boerma D, van Santvoort HC, et al. Staged multidisciplinary step-up management for necrotizing pancreatitis. Br J Surg. 2014;101(1):e65-79.

Götzinger P, Wamser P, Exner R, et al. Surgical treatment of severe acute pancreatitis: timing of operation is crucial for survival. Surg Infect (Larchmt). 2003;4(2):205-11.