Retroperitoneal packing and peritoneostomy: an unusual approach to treat severe necrotizing acute pancreatitis

Mariana Langanke Gonçalves[1], Michelle Ishida Chiang[1], Giovanna Mennitti Shimoda[1], Moisés Aarão Sarmento Ferreira[1], Pedro de Souza Lucarelli Antunes[1], Luca Giovanni Antonio Pivetta[1], José Gustavo Parreira[1], José Cesar Assef[1]

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

INTRODUCTION

Pancreatic necrosis is a serious complication of acute pancreatitis (AP).[1] Infected pancreatic necrosis, which often leads to sepsis and multiple organ failure, is a severe complication of necrotizing pancreatitis[2] and a leading cause of death in these patients.[1]

Here we describe a case of biliary AP, that evolved with necrosis and pancreatic infection. The non-responsiveness to conventional necrosectomy and the need of a surgical approach including retroperitoneal packing and peritoneostomy, highlight the complexity of AP presentation, the importance of watchful care and the possibility of failure of standard managements to prevent death.

CASE PRESENTATION

A 61-years-old man, hospitalized for 21 days with severe acute biliary pancreatitis, returned 2 days later to the service with a twelve hours' abdominal pain that radiates to the back, accompanied by one episode of syncope. Examination revealed abdominal distention accompanied by epigastric pain. There was no nausea, vomiting, fever or other symptoms. Under the possibility of return and exacerbation of the pancreatic necrosis, laboratory and image exams were requested. The initial conduct involved analgesia, hydration and fasting. Five days after admission, he was sent to the Intensive Care Unit due to worsening of symptoms and a necrosectomy was performed. Four weeks after the admission, a surgical re-approach became necessary due to a significant hematimetric decrease: retroperitoneal packing and peritoneostomy. But the patient's clinical condition worsened and he died one day after the surgery.

DISCUSSION

In our case, an unusual approach was performed after the failure of previous necrosectomy: a retroperitoneal packing with peritoneostomy. This technique was chosen due to bleeding from the cavity walls, which challenged the hemostasis, and required the packing of the cavity. After the procedure, the patient presented with a significant aggravation of symptoms and died one day after surgery.

The particular outcome of this case highlights not only the severity of necrotizing AP, but also explores an atypical surgical approach, an exceptional conduct, possibly associated with a fast development of complications. Another issue brought up by this case would be whether the current guidelines ought to be thoroughly followed. After all, the early surgical intervention might have been responsible for the patient's survival until the second approach. Also, taking account of the intraoperatory conditions, even if minimally invasive techniques were used, it could have been necessary to convert the surgery into an open procedure. Despite the necessity of opting for the retroperitoneal packing and peritoniostomy, this unusual approach was not able to save the patient's life. Considering all the aforementioned events, it becomes relevant to share this case and question the validity of the current guidelines and criteria for management of AP and whether there should be made revisions upon them.

REFERENCES

[1] Rashid MU, Hussain I, Jehanzeb S, Ullah W, Ali S, Jain AG, Khetpal N, Ahmad S. Pancreatic necrosis: Complications and changing trend of treatment. World J Gastrointest Surg. 2019 Apr 27; 11(4): 198–217.

[2] Liu ZW, Yang SZ, Wang PF, Feng J, He L, Du JD, Xiao YY, Jiao HB, Zhou FH, Song Q, Zhou MT, Xin XL, Chen JY, Ren WZ, Lu SC, Cai SW, Dong JH. Minimal-access retroperitoneal pancreatic necrosectomy for infected necrotizing pancreatitis: a multicentre study of a step-up approach. Br J Surg. 2020 Sep;107(10):1344-1353. doi: 10.1002/bjs.11619. Epub 2020 May 25. PMID: 32449154.