

For Relevant Practice, What Is the Management of Acute Biliary Pancreatitis?

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Abstract

Acute pancreatitis is an acute inflammation of the pancreas. Biliary pancreatitis and chronic alcoholism are the two main causes of the inflammatory process, which involves abnormal activation of enzymes within the pancreas, potentially leading to severe damage. Biliary pancreatitis is caused by the migration of a gallstone. A biliary origin is suggested by elevated ALT levels and the presence of gallstones on abdominal ultrasound. Management of biliary pancreatitis depends on its severity. In the initial phase, for mild cases, management is straightforward in a hospital setting, consisting of fasting as long as pain persists, adequate hydration, and analgesics. Cholecystectomy should be performed during the same hospitalization. In cases of moderately severe or severe pancreatitis, management depends on the specific organ failure. Cholecystectomy should be performed at least 6 weeks after the onset of symptoms.

Kew Words: acute biliary pancreatitis; medical-surgical emergency; multidisciplinary management; endoscopic sphincterotomy; early / delayed cholecystectomy

Introduction

Acute pancreatitis is a relatively common condition, with an incidence of 5 to 100 cases per 100,000 inhabitants [1]. Acute pancreatitis has been identified as the leading cause of hospitalization for gastrointestinal diseases in the United States, costing approximately \$2.6 billion in hospitalization costs. It is also the leading cause of admission for abdominal emergencies in Europe and the United States [2-3]. Its diagnosis is based on the combination of acute and persistent abdominal pain (epigastric, transfixing, without pain relief in any position), elevated pancreatic enzymes (3 times or more the normal value), and imaging (computed tomography and/or magnetic resonance imaging) suggestive of morphological abnormalities. Migration of a gallstone and its impaction in the pancreatic duct at the level of the ampulla of Vater is the most common cause of acute biliary pancreatitis. The biliary origin of acute pancreatitis was first demonstrated in 1901 when Opie et al. reported a case of acute pancreatitis with a gallstone impacted in the papilla [4]. Several questions arise: What paraclinical examinations should be performed? What management should be recommended? Within what timeframe? The management of acute biliary pancreatitis involves two aspects: First, treating the gallstones in the common bile duct (the complication), and then those in the gallbladder.

Positive diagnosis: For a more precise diagnosis, it is necessary to conduct an etiological investigation specifying the patient's age, underlying health conditions, and personal and family history of pancreatic disease. The

causes of acute pancreatitis are predominantly chronic alcohol abuse and biliary origin.

The diagnosis of pancreatitis Acute pancreatitis is easily diagnosed based on the presence of two of these three criteria: pancreatic-type abdominal pain, a lipase level more than three times the normal value, and consistent imaging (CT scan and/or MRI). A gallbladder with gallstones associated with pancreatic symptoms suggests acute biliary pancreatitis, also known as cholecystopancreatitis. Liver function tests (transaminases, cholestasis enzymes, and bilirubin) should be performed upon admission. The origin is suspected Biliary pancreatitis is suspected when ALT is greater than 3 times the normal level [5]. An ultrasound of the bile ducts and gallbladder should also be requested. If ultrasound fails to reveal gallstones or gallbladder sludge, endoscopic ultrasound should be performed promptly to confirm the diagnosis. **Initial management: Benign acute biliary pancreatitis (80% of cases):** At this stage, there are no clinical, biological, or radiological severity criteria. Management is straightforward. In a hospital setting, it involves keeping the patient fasting as long as abdominal pain persists, with standard hydration and analgesics tailored to the pain level. Resumption of oral intake is permitted after the pain subsides within a few days. It should be gradual and balanced. Early endoscopic retrograde cholangiopancreatography (ERCP) is not indicated in benign acute biliary pancreatitis.

Cholecystectomy should be performed during the same hospitalization to prevent further flare-ups and recurrences. Studies have demonstrated a risk of recurrence of biliary complications or mortality exceeding 17% within 4 weeks of refeeding if the procedure is not performed [6]. In our general surgery department, the recurrence rate was 20%, 4 weeks after resuming normal feeding, and the mortality rate was 7%. It is imperative to operate on the patient during the same hospitalization, removing the gallstone reservoir.

Moderately severe or severe acute biliary pancreatitis (20% of cases):

The patient presents with transient or permanent organ failure. Management requires hospitalization in a step-down unit, or even intensive care, depending on the clinical and biological severity. Depending on the organ failure, management may require: simple oxygen therapy or even respiratory support with mechanical ventilation. Hyperhydration should be initiated within the first few hours to combat hypovolemia. Nutritional support should be implemented from day 1 of care to combat malnutrition and translocation. Bacterial infection can lead to necrosis, occurring on average 2 to 3 weeks after the onset of pain. Nutritional intake must be exclusively via the digestive tract, either orally if the patient's clinical condition allows and the target caloric intake is met, or by placing an enteral feeding tube in the stomach [7]. There is no indication for prophylactic antibiotic therapy to limit the risk of secondary necrosis [8]. Antibiotic therapy is started only in cases of strong suspicion or evidence of infection, after ten days of acute pancreatitis, the onset of fever and abdominal pain, along with a rise in CRP and leukocytosis, will raise suspicion of infection of the necrotic tissue. The presence of air bubbles within the necrotic tissue on imaging will be highly suggestive. Endoscopic retrograde cholangiopancreatography (ERCP), with or without sphincterotomy, is probably not indicated in severe acute biliary pancreatitis without cholangitis. It is indicated in cases of acute biliary pancreatitis associated with biliary obstruction and in cases of acute biliary pancreatitis associated with cholangitis. Clinical trials have confirmed that there is no indication for emergency sphincterotomy in cases of acute biliary pancreatitis in order to limit the risk of long-term morbidity or mortality. The only indication for an emergency sphincterotomy is confirmed cholangitis due to a stone lodged in the bile ducts [9 - 10].

Conclusion:

Acute biliary pancreatitis is a common condition worldwide. Multidisciplinary management is necessary from admission. Randomized controlled trials have provided answers to very practical management questions.

In cases of acute biliary pancreatitis with associated cholangitis, specific emergency endoscopic treatment (endoscopic retrograde cholangiopancreatography) for endoscopic sphincterotomy and extraction of stones is required. A cholecystectomy will be performed electively in

cases of moderately severe or severe acute biliary pancreatitis. Apart from non-severe acute biliary pancreatitis, cholecystectomy should be performed during the same hospitalization and under no circumstances should it be delayed.

Declaration de liens interest: Les auteurs ne déclarent aucun conflit d'intérêts.

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