ACUTE PANCREATITIS IN A PACIENT WITH CHOLEDOCHOLITHIASIS TREATED BY ENDOSCOPIC RETROGRADE CHOLANGIOPANCREATOGRAPHY. CASE REPORT

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Abstract: Methods and material: We will discuss the case of a patient TA, 69 years old, with known history of biliary colic, biliary lithiasis (ultrasonography), who underwent ERCP for choledocholithiasis diagnosed. Anamnesis, clinical exam and laboratory investigations lead to the diagnosis of acute pancreatitis. Results: The patient is assigned to surgery. Cloudy serosanguinous fluid and pancreatic necrosis areas are found. The evolution is favorable with improved general and biological state. The patient was discharged surgically healed. Conclusion: ERCP can be complicated by pancreatitis, even in the hands of an experienced doctor. Severe acute necrotico-hemorrhagic or supurative pancreatitis requires delayed emergency surgery, after complex patient stabilization.

Cuvinte cheie: pancreatită acută, coledocolitiază, colangiopancreatografie endoscopică retrogradă **Rezumat:** Metodă și material: Vom prezenta cazul TA, 69 ani, cu antecedente de colică biliară, litiază biliară certificată ecografic, supus unei intervenții endoscopice, urmarea unei coledocolitiaze. Anamneza, examenul clinic și paraclinic orientează spre diagnosticul de pancreatita acută. Rezultate: Se decide intervenția chirurgicală. Se constată lichid sero-sangvinolent, tulbure, precum și arii de necroză pancreatică. Evoluția postoperatorie este favorabilă, starea generală s-a ameliorat clinic și biologic, bolnavul fiind externat vindecat chirurgical. Concluzii: ERCP poate fi grevată de complicații precum pancreatita acută, chiar și în mâinile unui operator cu experiență. Pancreatita acută severă necrotico-hemoragică necesită intervenție chirurgicală de urgență amânată, după reechilibrarea hidroelectrolitică a pacientului, pentru dezamorsarea afecțiunii.

INTRODUCTION

Classified as acute or chronic, depending on clinical characteristics, pathological modifications and evolution¹, pancreatitis is an inflammation of the pancreas. Acute pancreatitis is the anatomical expression of the acute syndrome of pancreatic and peripancreatic autodigestion, compared by Lucien Lejer with an explosion in a munitions factory, to underline that every instant in the development of the disease determines and worsens the ensuing moments.(2) From a clinical point of view acute pancreatitis reckons a mild and a severe form, and hystopathologically there are edematous, necrotic, hemorrhagic and suppurative pancreatitis.(2)

Acute pancreatitis can have multiple etiologies, synthesized with the acronym formula "I GET SMASHED":

- I idiopathic
- G gallstone
- **E** ethanol
- **T** trauma
- **S** steroids
- M mumps (paramyxovirus) and other viruses (Epstein-Barr virus, Cytomegalovirus)
- A autoimmune disease (Polyarteritis nodosa, Systemic lupus erythematosus)
- S scorpion sting and also snake bites
- **H** hypercalcemia, hyperlipidemia / hypertriglyceridemia and hypothermia

- E ERCP (Endoscopic Retrograde Cholangio-Pancreatography - a procedure that combines endoscopy and fluoroscopy)
- **D** drugs (SAND steroids & sulfonamides, azathioprine, NSAIDS, diuretics such as furosemide and thiazides, & didanosine) and duodenal ulcers).

Less common causes can be pancreatic ducts malformations, neoplasm, ischemia, pregnancy, cystic fibrosis etc.(3)

Pathologic changes in acute pancreatitis are determined by interstitial inflammation, hemorrhage, necrosis and infection. Judging by the extent and the intensity of these phenomena we can differentiate the following morphopathologic forms: edematous or mild, necrotico-hemorrhagic, considered as underlayer of severe forms, and suppurative, appreciated as evolutive complication of necrotico-hemorrhagic pancreatitis.

Choledocholithiasis is mainly secondary (calculi from the gallbladder), and occasionally primary (calculosis of the main biliary tract).(1)

The diagnosis of choledocholithiasis is clinical and ultrasonographic. The election treatment is ERCP with sphincterotomy and calculi extraction.¹

Acute pancreatitis diagnosis is based on clinical and laboratory data. Typical presentation includes pain in the upper abdomen, nausea, and vomiting, low fever. The pain is sudden, maximum intensity is reached in a few hours; it can be similar to the one in biliary colic, irradiating in the left and right

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hypochondria and frequently in the dorso-lumbar region. The patients are fidgeting, always changing the position. The clinical exam discovers abdominal tenderness and even muscular defence, abdominal distension due to paralytic. Jaundice is rarely present. Signs of organ failure (cardio-circulatory, respiratory, renal, metabolic or hematologic) are manifestations of severe acute pancreatitis.²

Biologically the diagnosis of acute pancreatitis is considered when abdominal pain is associated with amylasemia 3 times the normal value. Laboratory findings are hyperamylasemia, hyperamylasuria, hyperlipasemia, modification in the amylase clearance and creatinine clearance ratio.²

If the mild or edematous form is constantly remissive, even with minimum treatment, necrotico-hemorrhagic acute pancreatitis can lead to severe complications: pancreatic sequester, pancreatic pseudocyst, pancreatic abscesses.²

The treatment of acute pancreatitis is medico-surgical challenge. Ideally the patient is treated in the Intensive Care Unit: limiting the extent of the disease by treating the major symptoms: pain, nausea, vomiting, and hypovolemia. Hydro-electrolytic balancing is the most important element of the initial treatment of pancreatitis.¹ Parenteral feeding replaces per os alimentation. There are multiple studies certifying the use of antibiotics in decreasing necrosis areas. ERCP performed in the first 24-72 hours has the role of reducing morbidity and mortality, but can also precipitate an infection in a "sterile" pancreatitis.

Surgical intervention is indicated in infected necrosant pancreatitis, uncertain diagnosis and complications. The management can vary from minimum invasive procedures (percutaneous debridment or transorificial transgastric surgery) to conventional surgery with debridment, simple drainage, and continuous lavage and planned reinterventions.

THE AIM OF THE STUDY

Communicating a case of choledocholithiasis treated by endoscopic sphincterotomy and calculi extraction (ERCP) that progress to acute necrotico-hemorrhagic pancreatitis.

MATERIAL AND METHOD

We will discuss the case of TA, 69 years old male patient, urban resident, with known history of repeated biliary colic, vesicular lithiasis certified by ultrasound. (Fig.1).

Figure no. 1. Ultrasonographical diagnosis of choledocholithiasis



He is admitted in another service presenting jaundice. ERCP with sphincterotomy and stone extraction is performed, with a quick discharge. Soon after release from hospital he is brought in our service accusing pain in the upper abdomen, nausea, vomiting.

The patient is in an influenced state, with jaundice,

tympanitic, with intestinal paresis (silent abdomen at auscultation).

Laboratory investigations show leukocytosis with granulocytosis, high ALAT and ASAT (12 and 6 times the normal values respectively), hyperamylasemia and hyperamylasuria (23 and 61 times the normal values respectively).

Anamnesis, clinical and paraclinical exams reveals the diagnosis of acute pancreatitis.

The digestive tube is rested (nasogastric tube to evacuate the gastric contents), also a urinary probe to monitor the diuresis, and parenteral hydro-electrolytic rebalancing is instated, and also antalgic treatment.

The patient shows little sign of improvement. Ultrasound exam shows medium quantity of fluid in the peritoneal cavity. Fine needle aspiration is performed. Microbiological exam from the aspiration fluid detects S. aureus.

Surgical intervention is decided: laparotomy by median xifo-umbilical incision is performed. Pussy fluid is found in the peritoneal cavity and also pancreatic necrotic areas. The necrotic tissues are excided, the peritoneal cavity lavage, multiple drainage and parietal suture with total threads are performed

RESULTS

Postoperatory evolution is favourable, the drained fluid diminishing during 14 days, the draining tubes being suppressed progressively starting with the 8th day postoperatory. Peritoneal cavity lavage with saline solution was performed through the draining tubes, maintaining their functionality.

The general state, clinical and biological one improved (important decrease in transamynases, amylasemia, amylasuria), the patient being discharged on the 21st day after surgery.

DISCUSSIONS

ERCP (*Fig.* 2) with sphincterotomy and stone extraction is the elective treatment in choledocholithiasis.

Figure	no.	2.	Endoscopic	retrograde
cholangiopancreatography			performed	for
cholodoch	alithiacic			



Even though it is a minimal invasive procedure, able of absolve the patient from conventional surgery together with the associated anesthethical and surgical risks, it can have a series of complications, the most important one being acute pancreatitis. Acute pancreatitis postERCP is influenced by the following factors:

- operator-related factors: inadequate training, lack of experience, low case volume;
- patient-related factors: younger age, female sex, normal serum bilirubin, recurrent pancreatitis, prior ERCP-induced

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pancreatitis, sphincter of Oddi dysfunction

• Procedure-related factors: difficult cannulation, pancreatic duct injection, sphincter of Oddi manometry, precut sphincterotomy, pancreatic sphincterotomy, minor papilla sphincterotomy, bilary balloon sphincteroplasty.

Risk factors for post-ERCP pancreatitis are additive.

CONCLUSIONS

ERCP can have very serious complications such as acute pancreatitis, even performed by an experienced doctor. In spite of uncontrollable risk factors ERCP is seldom

needed, to spare the patient of conventional surgery.

Severe necrotico-hemorrhagic acute pancreatitis necessitates delayed emergency surgical intervention, after hydro-electrolytic rebalancing, to defuse the etiopathogenic chain that bears lethal evolutive risk.

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