

Supplemental Files (Appendix).

Supplementary Material Table 1. Diagnostic criteria for acute cholecystitis according to Tokyo guidelines.

Supplementary Material Table 2. Israeli Score.

Supplementary Material Table 3. Grey areas in acute calculous cholecystitis (ACC) and acute biliary pancreatitis (ABP) management.

Supplementary Material Figure 1. Gallbladder-colic fistula: intraoperative images (the gallbladder is yellow colored; the colon is purple colored).

Supplementary Material Figure 2. Computed Tomography (CT) scan performed on hospital admission, demonstrating a stage D Balthazar acute pancreatitis, with acute intrapancreatic and peripancreatic necrosis and peripancreatic fluid.

Supplementary Material_Table 1. Diagnostic criteria for acute cholecystitis according to Tokyo guidelines.

ACC DIAGNOSTIC CRITERIA ACCORDING TO TG13/TG18
1. Local signs of inflammation
i. Murphy's sign ii. RUQ palpable mass, pain or tenderness
2. Signs of systemic inflammation
i. Fever ii. High CRP iii. Elevated WBC count
3. Radiological signs
Radiological findings compatible with ACC
SUSPECTED DIAGNOSIS
One item in A + one item in B
DEFINITIVE DIAGNOSIS
One item in A + one item in B + C

TG, Tokyo guidelines; ACC, acute calculous cholecystitis; RUQ, right upper quadrant; CRP, C-reactive protein; WBC, white blood cells.

Supplementary Material_Table 2. Israeli Score.

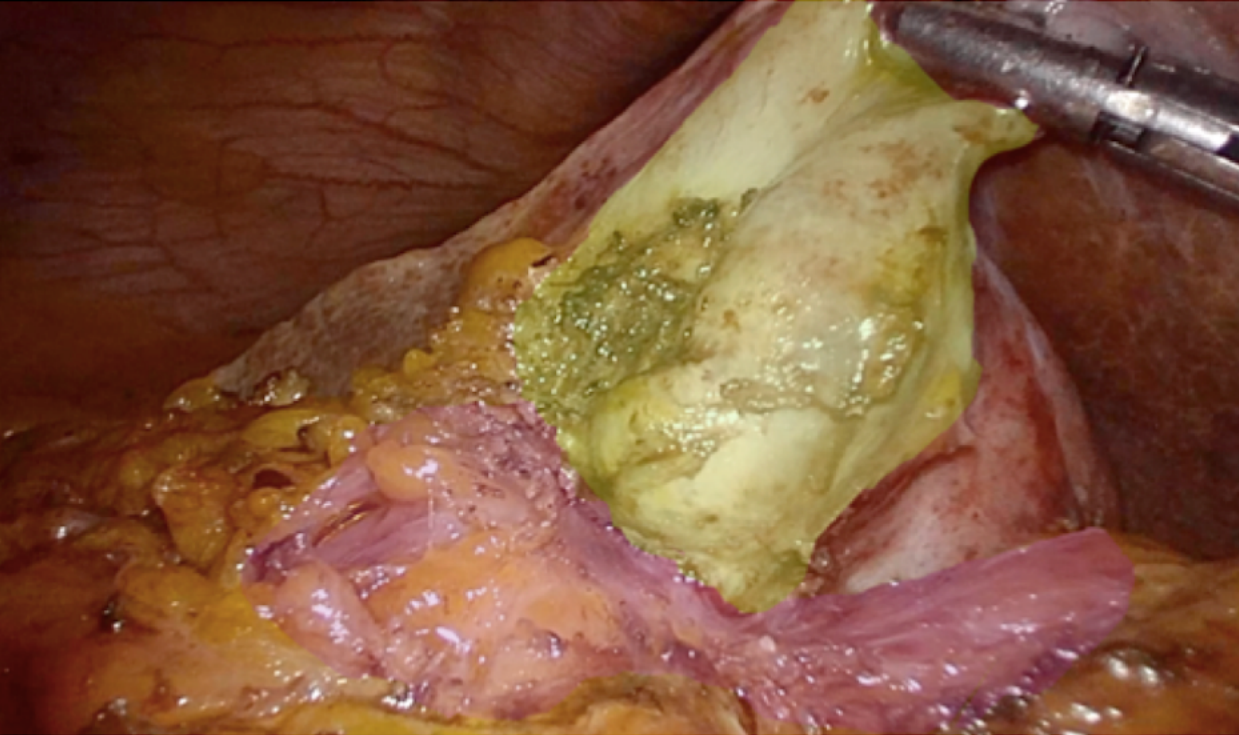
Predictive factors for choledocholithiasis	
Parameters	Score
Diameter of the common bile duct on ultrasound \geq 7mm	1
Age \geq 70	1
Total bilirubin \geq 1.8	1

Supplementary Material_Table 3. Grey areas in acute calculous cholecystitis (ACC) and acute biliary pancreatitis (ABP) management.

Gray areas	Possible answer
<i>Selection of High-Risk Patients for ELC</i>	The SPRIMACC multicenter prospective study found that the most accurate risk prediction model for postoperative 30-day mortality after ELC in patients with ACC is the POSSUM-Physiological Score. With a cut-off of 25 it has a sensitivity and a negative predictive value of 100% for the postoperative mortality of these patients.
<i>Alternative approaches to ELC in high-risk patients</i>	Some randomized trials and meta-analyses demonstrated the superiority of ELC over PTGBD in high-risk patients and the superiority of EUS-GBD over PTGBD in high-risk patients. Randomized trials demonstrating the superiority of EUS-GBD over ELC in high-risk patients are still lacking.
<i>Timing of ELC</i>	The authors recommended performing ELC as early as possible within the first ten days of symptoms onset.
<i>Modality of identifying the risks of concomitant CBD stones associated with ACC</i>	The Israeli Score takes into account age, the diameter of the common bile duct on ultrasound scan and the value of total bilirubin. The score had been prospectively validated with a good performance.
<i>PCT for the early diagnosis of infected pancreatic necrosis in patients with severe ABP</i>	The use of serial PCT measurements in the context of diagnostic and therapeutic pathways of patients with severe ABP and infected pancreatic necrosis is supported by the evidence. However, the optimal timing and frequency of PCT measurements, as well as the cutoff values for diagnosing infected pancreatic necrosis and predicting treatment response, are not yet well established.
<i>Early (within 48–72 hours) ERCP/ES or delayed (> 72 hours) or conservative treatment for ABP with cholangitis and/or common bile duct obstruction</i>	ERCP should be performed within the first 48 to 72 hours of hospital admission in patients with ABP and concomitant cholangitis.
<i>Surgical or endoscopic step-up approach as the first line of treatment for patients with infected pancreatic necrosis</i>	In clinically deteriorating patients with acute necrotizing pancreatitis, associated or not with necrosis infection, the first interventional therapeutic approach should be the endoscopic step-up approach. The minimally invasive surgical step-up approach can be considered the alternative choice.
<i>ELC during index admission (or within 14 days) or delayed laparoscopic cholecystectomy after hospital discharge for patients with mild ABP</i>	In patients with mild ABP, ELC during index admission (preferably within 3 days) should be performed.
<i>Optimal timing of cholecystectomy for patients with moderately-severe or severe ABP</i>	ELC should be considered carefully in patients with moderately severe and severe ABP, as it is associated with increased postoperative mortality and morbidity. The optimal timing of cholecystectomy after necrotising ABP, in the absence of peripancreatic collections, is within 8 weeks after discharge.

(ACC, acute calculous cholecystitis; ELC, early laparoscopic cholecystectomy; PTGBD, percutaneous gallbladder drainage; EUS-GBD, Endoscopic UltraSound-guided GallBladder transmural Drainage; CBD, Common bile duct) and acute biliary pancreatitis (ABP, acute biliary pancreatitis; CT, Computed Tomography; EN, enteral nutrition; ERCP, endoscopic retrograde cholangiopancreatography; ES, endoscopic sphincterotomy).

Supplementary Material Figure 1.



Supplementary Material Figure 2.

