


BSGIE Annual Meeting 2016

GASTRO-INTESTINAL EMERGENCIES IN ENDOSCOPY
SHOULD I STAY OR SHOULD I GO ?
for Endoscopists and Endoscopy Nurses
THURSDAY 22 SEPTEMBER 2016 - KINEPOLIS IMAGIBRAINE

OBSTRUCTIVE EMERGENCIES session
Acute cholangitis and biliary pancreatitis
Post-sphincterotomy bleeding

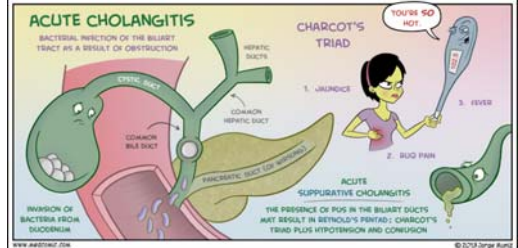
Christophe Snauwaert
AZ Sint-Jan Brugge

CALL 9.11 EMERGENCY




Acute cholangitis

< 1970s mortality rate > 50%, < 7% by the 1980s



The clinical diagnosis of acute cholangitis is made on the basis of the clinical findings, such as Charcot's triad, in combination with the laboratory data and imaging findings



Tokyo guidelines

J Hepatobiliary Pancreat Surg (2015) 14:66–77
DOI 10.1007/s00534-015-1126-5


Methods and timing of biliary drainage for acute cholangitis: Tokyo Guidelines

MASSAO NAGINO¹, TADASHI TAKADA¹, YOSHIRU KAWAKADA¹, YUI NOHRA¹, YUICHI YAMASHITA¹, TOMOYUKI KITA², KEIJI WADA³, TOMOHITO MANNING⁴, MASARU YOSHIDA⁵, FUMIHIRO MURAI⁶, STEVEN M. STRAMBERG⁷, HENRY A. PITT⁸, JACQUES BELLEFLOIT⁹, SHENG-TAI FAN¹⁰, KUI-HSIEN LAU¹¹, GREGOIRE BELLET¹², XIAO-PING CHEN¹³, EDWARD CHILCOCK-SEEN LAU¹⁴, BENNY P. PHILLIPS¹⁵, HARISH SINGH¹⁶, and AYUSH SHAI¹⁷

Grading

- Severe (grade III):
 - At least one new-onset organ dysfunction
- Moderate (grade II):
 - Acute cholangitis unaccompanied by organ dysfunction
 - But does not respond to the initial medical treatment, with the clinical manifestations and/or laboratory data not improved
- Mild (grade I):
 - Acute cholangitis which responds to the initial medical treatment, with the clinical findings improved


Severity assessment is important because urgent biliary drainage is essential in "severe" cases



Grading

- Severe (grade III):
 - At least one new-onset organ dysfunction
- Moderate (grade II):
 - Acute cholangitis unaccompanied by organ dysfunction
 - But does not respond to the initial medical treatment, with the clinical manifestations and/or laboratory data not improved
- Mild (grade I):
 - Acute cholangitis which responds to the initial medical treatment, with the clinical findings improved

Severity assessment is important because urgent biliary drainage is essential in "severe" cases



SIRS, Sepsis, and Septic Shock Criteria

Defines the severity of sepsis and septic shock.

February 2016: These criteria are no longer recommended for the diagnosis of sepsis, as they are neither sufficiently sensitive nor specific. For the latest evidence, visit our [SIRS page](#) or the [Sepsis 3 Consensus Definition](#). For patients under 18, please use the Pediatric SIRS, Sepsis, and Septic Shock criteria.

SIRS Criteria (≥ 2 meets SIRS definition)

- Temp >38°C (100.4°F) or < 36°C (96.8°F)
- Heart Rate > 90
- Respiratory Rate > 20 or PaCO₂ < 32 mm Hg
- WBC > 12,000/mm³, < 4,000/mm³, or > 10% bands

Sepsis Criteria (SIRS + source of infection)

Suspected or Present Source of Infection

Severe Sepsis Criteria (Organ Dysfunction, Hypotension, or Hyperfibrinogen)

- Lactic Acidosis, SGP <30 or SGP Drop > 40 mm Hg of normal

Septic Shock Criteria

Severe Sepsis with Hypotension, despite adequate fluid resuscitation




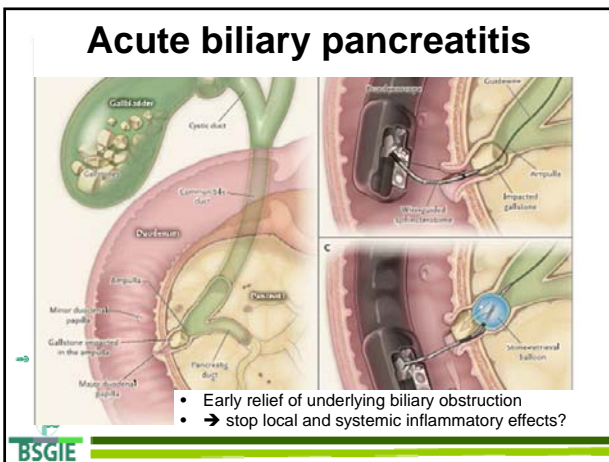
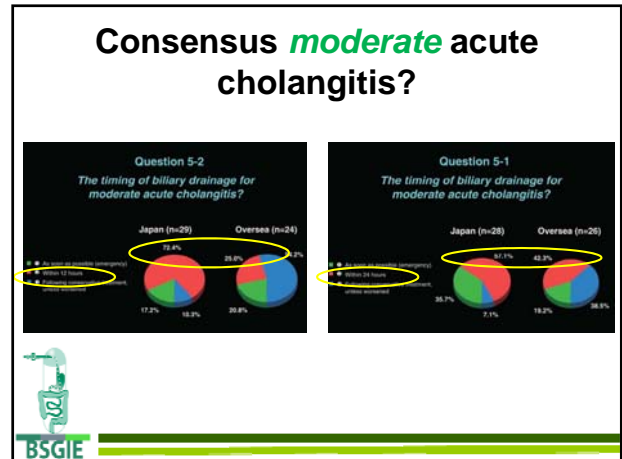
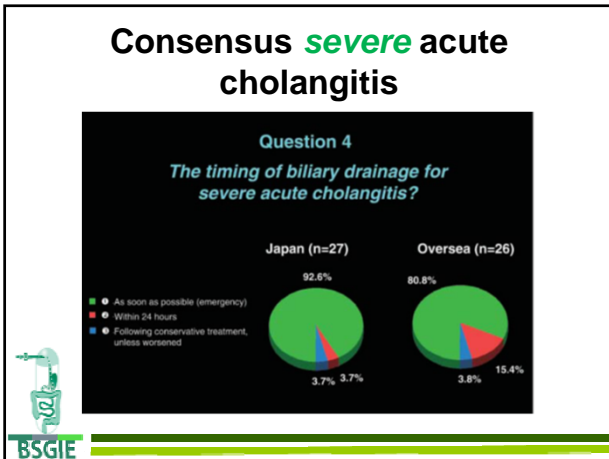
Timing of biliary drainage

Results of discussion about the "Timing of biliary drainage" at the Tokyo Consensus Meeting

As to the issue of timing, there are few references leading to evidence-based recommendations; therefore, attempts were made to obtain consensus from the panelists after the discussion.

Consensus was reached regarding severe (Fig. 4) and mild acute cholangitis (Fig. 6), but not on moderate acute cholangitis (Fig. 5).





- ### ERCP in ABP
- Potential benefit of early decompression of the pancreaticobiliary system
 - Risks associated with ERCP and sphincterotomy (i.e. bleeding, perforation)
 - In acute biliary pancreatitis, sphincterotomy can be performed
 - 1) as early intervention to potentially improve the disease course
 - 2) to extract retained common bile duct stones
 - 3) as prophylactic treatment to prevent recurrent biliary events

Early ERCP (<72h) Cochrane review 2012

Early routine endoscopic retrograde cholangiopancreatography strategy versus early conservative management strategy in acute gallstone pancreatitis (Review)

Tse F, Yuan Y

- ### Cochrane review 2012
- **In unselected patients with acute gallstone pancreatitis**, there were **no statistically significant differences** between the two strategies
 - In mortality (RR 0.74, 95% CI 0.18 to 3.03)
 - Local and systemic complications (RR 0.86, 95% CI 0.52 to 1.43; and RR 0.59, 95% CI 0.31 to 1.11 respectively)
 - **Predicted severity of pancreatitis** did not seem to influence these results
 - **Among patients with cholangitis**, the early routine ERCP strategy significantly reduced
 - Mortality (RR 0.20, 95% CI 0.06 to 0.68)
 - Local and systemic complications (RR 0.45, 95% CI 0.20 to 0.99; and RR 0.37, 95% CI 0.18 to 0.78 respectively)
 - **Among trials that included patients with biliary obstruction**, the early routine ERCP strategy was associated with a significant reduction in local complications and a non-significant trend towards reduction of systemic complications, no difference in mortality

What about (predicted) severe acute biliary pancreatitis?

- **Only undisputed indication = concurrent cholangitis**
- In the absence of cholangitis, with or without signs of bile-duct stones and obstruction, the indication for ERCP is not scientifically established, because studies have serious shortcomings:
 - Heterogeneous populations
 - Patients with cholestasis are often not evaluated separately
 - ERCP is often performed relatively late after hospital admission
 - Sphincterotomy is performed in only about 50% of cases
 - Considerable variation in end-point definitions
 - The pooled sample sizes of meta-analyses involving patients with predicted severe biliary pancreatitis without cholangitis are too small to detect effects of ERCP with sphincterotomy on the end points of severe complications and death



BSGIE



Early biliary decompression versus conservative treatment in acute biliary pancreatitis (APEC trial): study protocol for a randomized controlled trial

- Randomized controlled, parallel group, superiority multicenter trial
- Within 24 hours after presentation to the emergency department, patients with biliary pancreatitis without cholangitis and at high risk for complications will be randomized
- In 27 hospitals of the Dutch Pancreatitis Study Group, 232 patients will be allocated to early ERC with sphincterotomy or to conservative treatment



BSGIE

Study protocol

- **Patients at high risk for complications (predicted severe acute pancreatitis)**
 - Acute Physiology and Chronic Health Evaluation (APACHE-II) score of 8 or greater **or**
 - Modified Glasgow score of 3 or greater **or**
 - Serum C-reactive protein above 150 mg/L will be randomized
- **Primary endpoint: composite of major complications:**
 - Organ failure
 - Pancreatic necrosis
 - Pneumonia, bacteremia, cholangitis
 - Pancreatic endocrine, or exocrine insufficiency
 - Death within 180 days after randomization
- **Secondary endpoints:**
 - ERC-related complications
 - Infected necrotizing pancreatitis
 - Length of hospital stay
 - Economical evaluation

Additional file 6: Table 6a. Modified Glasgow score (2)

Each parameter scores 1 point
Age
Total bilirubin
Albumin
Total calcium
Urea/creatinine
Ugpt
Discrete liver dysfunction
Urea after resuscitation

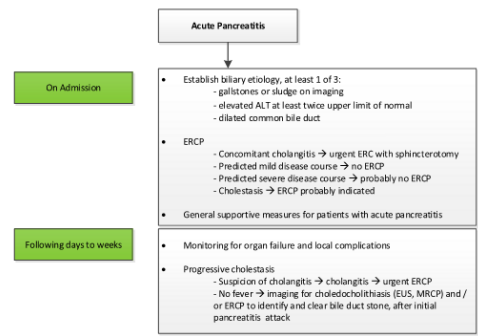
Parameter	Mean	SD	95% CI	95% CI	95% CI	95% CI	95% CI
Mean acute physiology score	11.0	2.0	10.8	11.2	10.6	11.4	11.0
Mean modified Glasgow score	3.0	1.0	2.8	3.2	2.6	3.4	3.0
Mean serum C-reactive protein (mg/L)	150	100	130	170	110	190	150



END 10/2017

BSGIE

Flowchart (Surgeon 2016)



BSGIE

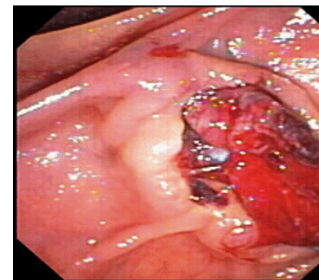
ACG Guidelines Am J Gastroenterol 2013

- Concomitant acute cholangitis: ERCP < 24h of admission
- ERCP not needed when no clinical evidence of ongoing biliary obstruction
- In the absence of cholangitis and/or jaundice: MRCP or EUS to screen for choledocholithiasis if highly suspected



BSGIE

Post-sphincterotomy bleeding



BSGIE

Post-sphincterotomy bleeding

- Post-sphincterotomy bleeding occurs in about 10% to 30%
- Most bleeding episodes are self-limited
- Severe bleeding in about 1% to 2% of patients and often results from a severed aberrant retroduodenal artery
- Immediate vs. delayed
- Endoscopically vs. clinically significant (GI bleeding and fall in Hb)
- Endoscopic hemostasis techniques:
 - Injection
 - Thermal
 - Mechanical
- Refractory bleeding:
 - Angiography
 - Surgery



Prevention of bleeding

- $INR \leq 1,5$
- $PLT > 50000$ U/L
- Adequate interruption of anticoagulation / antiplatelet therapy
- Aspirin can be continued when necessary



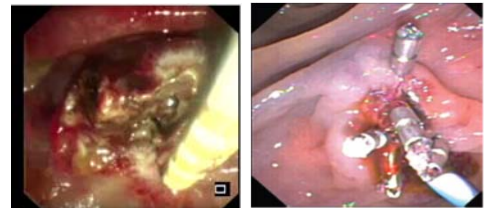
Endoscopic treatment: injection

- Injection of dilute epinephrine (hypertonic saline)
- Oral to the bleeding site (arterial anatomy of the papillary area)
- Advancement of the needle to the tip of the catheter to prevent bending the sheath on the elevator (or Carr-Locke needle)
- Monotherapy can be sufficient, durable hemostasis in more than 90%



Endoscopic treatment

- Thermal coaptive coagulation using bipolar probes
 - Avoid application to the pancreatic orifice
- Endoclip placement



Endoscopic treatment

- Placement of SEMS
- Removal after 2 - 8 weeks
- In cases with brisk bleeding that obscures endoscopic visualization
- In case of difficult-to-control post-ES bleeding

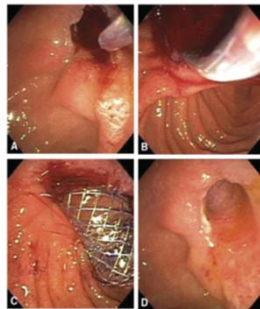


Figure 1. A. Endoscopic image during SEMS stent placement after failed sphincterotomy for papillary stenosis. B. Fully covered SEMS completely in place. C. SEMS stent in place across the papillary orifice. D. Endoscopic image of SEMS stent in place across the papillary orifice. E. SEMS stent in place across the papillary orifice. F. SEMS stent in place across the papillary orifice. G. SEMS stent in place across the papillary orifice. H. SEMS stent in place across the papillary orifice. I. SEMS stent in place across the papillary orifice. J. SEMS stent in place across the papillary orifice. K. SEMS stent in place across the papillary orifice. L. SEMS stent in place across the papillary orifice. M. SEMS stent in place across the papillary orifice. N. SEMS stent in place across the papillary orifice. O. SEMS stent in place across the papillary orifice. P. SEMS stent in place across the papillary orifice. Q. SEMS stent in place across the papillary orifice. R. SEMS stent in place across the papillary orifice. S. SEMS stent in place across the papillary orifice. T. SEMS stent in place across the papillary orifice. U. SEMS stent in place across the papillary orifice. V. SEMS stent in place across the papillary orifice. W. SEMS stent in place across the papillary orifice. X. SEMS stent in place across the papillary orifice. Y. SEMS stent in place across the papillary orifice. Z. SEMS stent in place across the papillary orifice.



THANK YOU FOR YOUR ATTENTION

PLEASE CLAP AND DON'T ASK TOUGH QUESTIONS

