ACTUALIZACION EN MANEJO DE PANCREATITIS AGUDA

28 de junio 2013

DIAGNOSTICO

- Dolor epigástrico irradiado en cinturón.
- Amilasa o lipasa x 3 o más.
- Hallazgos imagenológicos

Al menos 2 criterios

ORIGINAL ARTICLE

Classification of acute pancreatitis—2012: revision of the Atlanta classification and definitions by international consensus

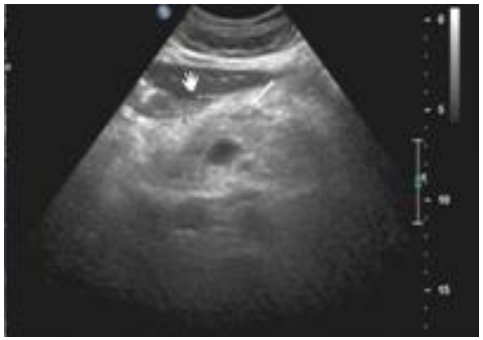
Peter A Banks,[1] Thomas L Bollen,[2] Christos Dervenis,[3] Hein G Gooszen,[4] Colin D Johnson,[5] Michael G Sarr,[6] Gregory G Tsiotos,[7] Santhi Swaroop Vege,[8] Acute Pancreatitis Classification Working Group

IMÁGENES

- Ecografia:

S: 67 %

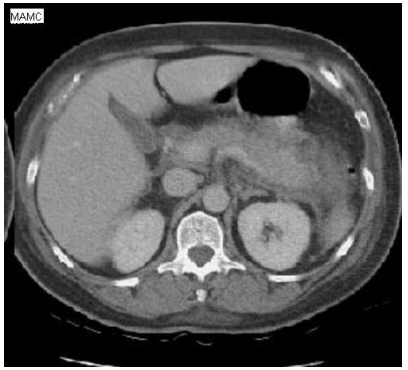
E: 100 %



- TC:

S: 78%

E: 86% (pancreatitis aguda grave)



DEFINICION DE SEVERIDAD

- COMPLICACIONES SISTEMICAS
  - Fallo de órgano
  - Exacerbación de comorbilidad previa
- COMPLICACIONES LOCALES

RIESGO Y FACTORES PRONOSTICOS

- Edad: >60 años
- Comorbilidades: Cancer, cardiopatias, insuficiencia renal, enfermedades hepaticas.
- Alcoholismo
- Obesidad: IMC >30
- Hematocrito >44%
- Creatinina >1,8 mg/dL

BEDSIDE INDEX OF SEVERITY PRIMERAS 24 HS

- BUN >25 mg/dL
- Deterioro del sensorio
- SIRS
- >60 años
- Derrame pleural

2 o mas criterios:
x7 riesgo de fallo orgánico
x10 mortalidad

SCORE DE MARSHALL

Table 1 Modified Marshall scoring system for organ dysfunction

	Score				
Organ system	**0**	**1**	**2**	**3**	**4**
Respiratory (PaO_2/FiO_2)	>400	301–400	201–300	101–200	≤101
Renal*					
(serum creatinine, μmol/l)	≤134	134–169	170–310	311–439	>439
(serum creatinine, mg/dl)	<1.4	1.4–1.8	1.9–3.6	3.6–4.9	>4.9
Cardiovascular (systolic blood pressure, mm Hg)†	>90	<90, fluid responsive	<90, not fluid responsive	<90, pH<7.3	<90, pH<7.2

For non-ventilated patients, the FiO_2 can be estimated from below:

Supplemental oxygen (l/min)	**FiO_2 (%)**
Room air	21
2	25
4	30
6–8	40
9–10	50

A score of 2 or more in any system defines the presence of organ failure.

*A score for patients with pre-existing chronic renal failure depends on the extent of further deterioration of baseline renal function. No formal correction exists for a baseline serum creatinine ≥134 μmol/l or ≥1.4 mg/dl.

†Off inotropic support.

CLASIFICACION ACTUAL

- LEVE
  - Sin falla orgánica, sin complicaciones locales o sistémicas.
- MODERADAMENTE SEVERA
  - Falla de organo que resuelve en <48hs y/o
  - Complicaciones locales o sistémicas en ausencia de falla de organo >48hs.
- SEVERA
  - Falla orgánica >48hs

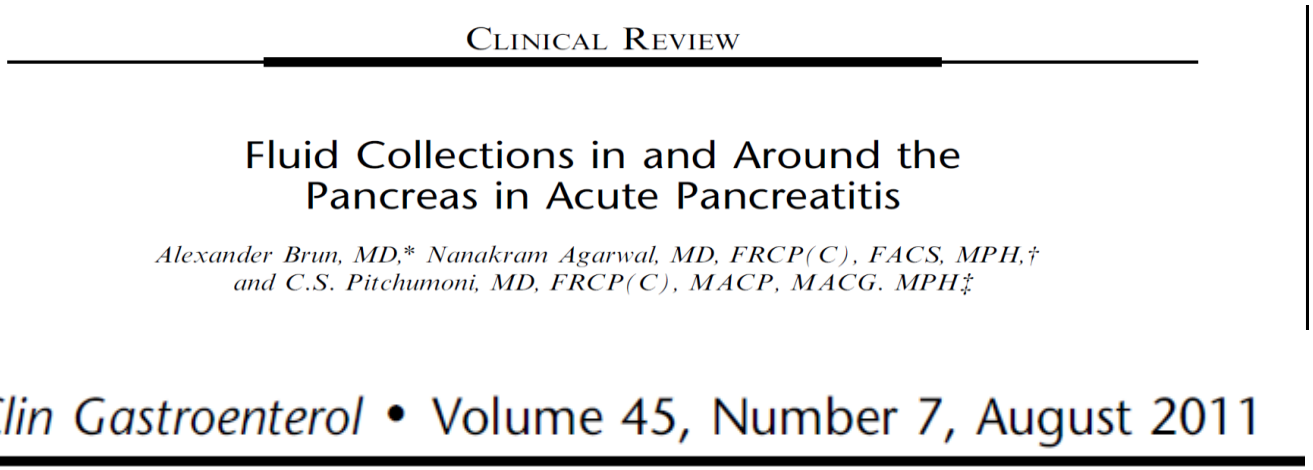
Gut 2013;**62**:102–111. doi:10.1136/gutjnl-2012-302779

COMPLICACIONES LOCALES

- < 4 Semanas
  - Colección peripancreatica aguda
    - Esteril
    - Infectada
  - Colección pancreatica aguda post-necrotica/colección peripancreatica
    - Esteril
    - Infectada

COMPLICACIONES LOCALES

- > 4 semanas
  - Pseudoquiste
    - Esteril
    - Infectado
  - Wall-off necrosis pancreatica



CLINICAL REVIEW

Fluid Collections in and Around the Pancreas in Acute Pancreatitis

Alexander Brun, MD, Nanakram Agarwal, MD, FRCP(C), FACS, MPH,† and C.S. Pitchumoni, MD, FRCP(C), MACP, MACG, MPH‡*

J Clin Gastroenterol • Volume 45, Number 7, August 2011

INDICACIONES DE UTI

- Falla respiratoria.
- Signos de insuficiencia respiratoria.
- Pacientes que no responden a la reanimacion inicial.
- Fallo de 2 o mas organos.

FLUIDOTERAPIA

- Que?
- Cuánto?
- Cómo?

TABLE 1. Studies Summary

Authors	Study Design	Single Center or Multicenter	OCEBM Level	N	Endpoints	Type of Fluid(s)	Rate of Administration	Resuscitation Goal
Du et al[20]	RCT	Single	2	41	Peak IAP	HES, RL	Determined by goal	Hemodynamic stability
De-Madaria et al[7]	PC	Single	3	247	Organ failure >48 h	NS + 5%–10% dextrose	Aggressive: >4.1 L in the first 24 h Moderate: 3.1-4.1 L in the first 24 h Nonaggressive: <3.1 L in the first 24 h	Physician judgment
Wu et al[21]	RCT	Multi	2	40	SIRS	RL or NS	Initial 20 mL/kg bolus + 3 mL/kg per hour and then goal-directed or by physicians judgment	BUN or physician judgment
Warndorf et al[25]	RC	Single	3	434				
Wall et al[24]	CS	Single	4	286				
Mole et al[27]	CS	Single	4	30				
Mao et al[9]	RCT*	Single	2	115				
Muddana et al[44]	PCC	Single	3	129	PNec	Not specified	4.3 L in the first 24 h and then 3.9 L in the next 24 h	Not specified
Gardner et al[23]	RC	Single	3	45	Mortality, persistent organ failure, duration of hospital stay	NS, RL, or dextrose	Aggressive: >1/3 of total fluids in the first 24 h Nonaggressive: <1/3 of total fluids on the first 24 h	Not specified
Mao et al[10]	RCT	Single	2	76	Mortality, sepsis	NS, RL, plasma, HES	Aggressive: 10–15 mL/kg per hour Nonaggressive: 5–10 mL/kg per hour	HR, CVP, BP, UO
Reddy et al[28]	RC	Single	3	45	Mortality, length of hospital stay	5% dextrose + 0.5 NS	200 mL/h	HR, BP, UO, Hct
Mao et al[11]	PC	Single	3	83	Mortality	NS, RL, plasma, HES	Aggressive: volume expansion standard achieved in the first 24 h Moderate: 25–48 h Nonaggressive: 49–72 h	HR, BP, UO, Hct
Eckerwall et al[8]	CS	Single	4	99	ICU admission, mortality	Crystalloid (unspecified), colloid (albumin)	Aggressive: >4 L Nonaggressive: <4 L in the first 24 h	Spo_2, HR, BP, UO, electrolyte balance
Brown et al[22]	RC	Single	3	39	PNec, Hct	Not specified	Not specified	Hct
Klar et al[26]	PC	Single	3	13	Mortality, PNec	Dextran 60 + Ringer's lactate	Not specified	CVP, Hct

*Randomization was done in a pseudorandom manner where allocation to treatment group was done according to patient age being an odd or even number.

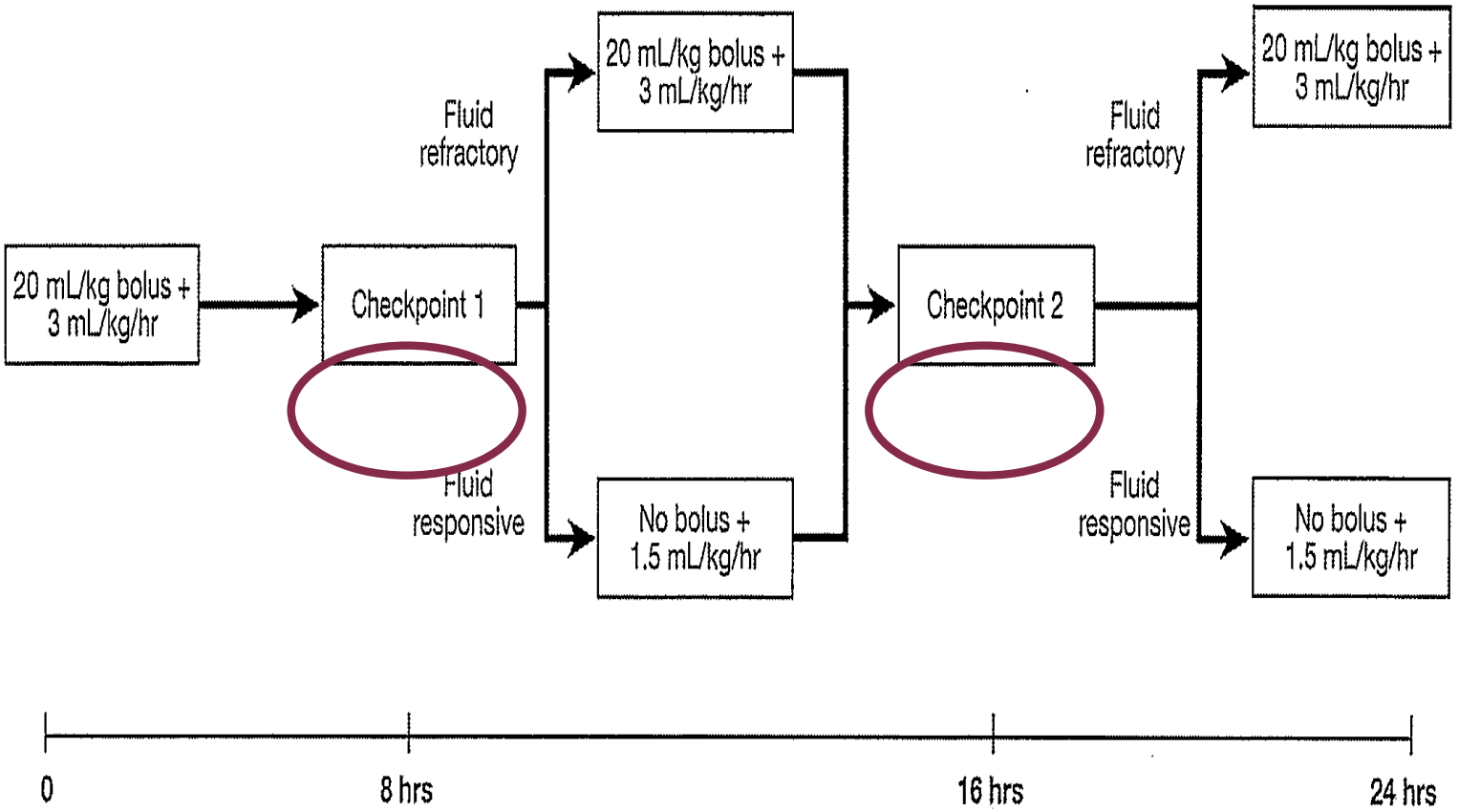
BP indicates blood pressure; BUN, blood urea nitrogen; CS, case series; CVP, central venous pressure; Hct, hematocrit; HES, hydroxyethyl starch; HR, heart rate; IAP, intra-abdominal pressure; n, number of participants; NS, normal saline; OCEBM, Oxford Centre for Evidence-Based Medicine; PC, prospective cohort; PCC, prospective case-control; PNec, pancreatic necrosis; RL, Ringer's lactate; RCT, randomized clinical trial; RC, retrospective cohort; SIRS, systemic inflammatory response syndrome; Spo_2, arterial oxygen saturation; UO, urine output.

et al[21] showed that patients resuscitated with Ringer lactate showed a reduction of 84% in systemic inflammation from baseline (6/19 down to 1/19; $P = 0.035$) whereas there was no such reduction in the normal saline comparison group. Levels of C-reactive protein were also reduced in the Ringer lactate group (51 mg/dL vs 104 mg/dL; $P = 0.02$). Again, this study showed no significant difference between treatment groups for the following clinical outcomes: intensive care unit transfers, pancreatic necrosis, pancreatic infection, organ failure, length of hospital stay, and mortality.

- Hiporesucitación aumenta la M.
- Reanimacion agresiva
  - Retrospectivo 99 ptes donde se los reanimó con mas de 4000 ml de fluidos en 24 hs:
    - _+ complicaciones respiratorias
    - _+ tiempo de internación en UTI
  - Randomizado de 115 pacientes:
    - _+ sepsis
    - _+ M

Eckerwall G, Olin H, Andersson B *et al.* Fluid resuscitation and nutritional support during severe acute pancreatitis in the past: what have we learned and how can we do better? Clin Nutr 2006;25:497–504.

Mao EQ, Fei J, Peng YB *et al.* Rapid hemodilution is associated with increased sepsis and mortality among patients with severe acute pancreatitis. Chin Med J (Engl) 2010;123:1639–44.



Protocol timeline

The "Golden Hours" of Management in Acute Pancreatitis

Jessica M. Fisher, MD[1] and Timothy B. Gardner, MD[1]

In the past decade, a significant amount of active and enthusiastic research has changed the way we treat acute pancreatitis (AP) within the first 24 hours of presentation. We highlight the importance of rapid initiation of treatment to help prevent the considerable morbidity and mortality that can occur when interventions are delayed. We review recent data that validate simple and accurate tools for prognostication of AP to replace the older, more tedious methods that relied on numerous factors and required up to 48 hours to complete. Additionally, we aim to provide evidence-based guidelines and end points for fluid resuscitation. Finally, we hope to bring clarification to two previously controversial topics in AP treatment: the use of prophylactic antibiotics and early endoscopic retrograde cholangiopancreatography.

Am J Gastroenterol 2012;107:1146–1150; doi:10.1038/ajg.2012.91

TERAPIA NUTRICIONAL

International Consensus Guidelines for Nutrition Therapy in Pancreatitis

Indication for Nutrition Therapy

NT is not generally needed for mild to moderate disease unless complications ensue. (Grade A: Platinum)
NT should be considered in any patient regardless of disease severity if the anticipated duration of being NPO is >5–7 days. (Grade B: Gold)

Continuous EN infusion is preferred over cyclic or bolus administration. (Grade B: Gold)
Nasogastric tubes may be used for administration of EN. Postpyloric placement is not necessarily required. (Grade B: Gold)

Early NT is indicated for severe pancreatitis. (Grade A: Platinum)

Use PN if NT is indicated, when EN is contraindicated or not well tolerated. (Grade A: Platinum)

Enteral nutrition (EN) is generally preferred over parenteral nutrition (PN), or at least EN should, if feasible, be initiated first. (Grade A: Platinum)

Clinical Guidelines

International Consensus Guidelines for Nutrition Therapy in Pancreatitis

Jay M. Mirtallo, MS, RPh[1]; Alastair Forbes, MD[2]; Stephen A. McClave, MD[3]; Gordon L. Jensen, MD, PhD[4]; Dan L. Waitzberg, MD, PhD[5]; and Andrew R. Davies, MD[6] for the International Consensus Guideline Committee Pancreatitis Task Force

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MUCHAS GRACIAS!