



Founded in Geneva, 1935; Incorporated in Washington, D.C., 1940

Manejo de las Complicaciones Locales de la Pancreatitis Aguda Grave

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- Docente de Anatomía Descriptiva y Topográfica – F.C.M., U.N.A.
- Immediate Past World President - International College of Surgeons
- Coordinador de Gestión Académica – FCM, UNA

Pancreas

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

ABSTRACT

Background and objective The Atlanta classification of acute pancreatitis enabled standardised reporting of research and aided communication between clinicians. Deficiencies identified and improved understanding of the disease make a revision necessary.

Methods A web-based consultation was undertaken in 2007 to ensure wide participation of pancreatologists. After an initial meeting, the Working Group sent a draft document to 11 national and international pancreatic associations. This working draft was forwarded to all

Significance of this study

What is already known on this subject?

- ▶ The original Atlanta Classification of acute pancreatitis of 1992 is outdated.
- ▶ Two types of acute pancreatitis have been described: acute oedematous pancreatitis and acute necrotising pancreatitis.
- ▶ The description of pancreatic and peripancreatic collections is confusing and not universal

▶ Additional data are published online only. To view these files please visit the journal online (<http://dx.doi.org/10.1136/gutjnl-2012-302779>).

¹Division of Gastroenterology, Hepatology, and Endoscopy, Harvard Medical School, Brigham and Women's Hospital, Boston, Massachusetts, USA

²Department of Radiology, St Antonius Hospital,

- **Nuevos conocimientos fisiopatológicos**
- **Dos tipos de pancreatitis aguda**
 - Intersticial – edematosa
 - Necrotizante
- **Dos fases: Inicial y Tardia**
- **Dos tipos de colecciones**
 - Líquida
 - Necrótica
- **Tres categorías: leve, moderada y grave**

Definición de las complicaciones locales

Local complication	Morphology	Setting	Onset	Wall
Acute peripancreatic fluid collection (APFC)	Homogeneous collection with fluid density	Interstitial edematous pancreatitis	early	No definable wall encapsulating the collection
Pancreatic pseudocyst	Homogeneous collection with fluid density	Interstitial edematous pancreatitis	> 4 weeks after onset	Completely encapsulated; well defined inflammatory wall
Acute necrotic collection (ANC)	Heterogenous with liquid and non-liquid density (necrosis)	Acute necrotising pancreatitis	early	No definable wall encapsulating the collection
Walled-off necrosis (WON)	Heterogenous with liquid and non-liquid density (necrosis)	Acute necrotising pancreatitis	> 4 weeks after onset	Completely encapsulated; well defined inflammatory wall

Banks, PA; Bollen, TL et. al.
 Acute Pancreatitis Classification Working Group
Gut, 2012

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Acute Pancreatitis - Fluid Collections

Interstitial Pancreatitis

< 4 weeks

Acute
Peripancreatic
Collection

> 4 weeks

Pseudocyst

Necrotizing Pancreatitis

< 4 weeks

Acute
Necrotic
Collection

> 4 weeks

Walled off
Necrosis

Qué cambio

- Los criterios pronósticos (Ramson, Glasgow, APACHE, Balthazar) no demostraron utilidad y deberían ser abandonados.
- La profilaxis antibiótica ya no está recomendada.
- Nueva clasificación de severidad de la pancreatitis aguda.
- Nuevas definiciones de las complicaciones locales.
- El concepto de absceso pancreático debe ser borrado.
- **Manejo miniinvasivo de las complicaciones severas.**

Papel del Intervencionismo en la Pancreatitis Aguda

- **Diagnóstica:**
 - **Punción aspiración con aguja fina para cultivo**
- **Terapéutica:**
 - **Drenaje de colecciones agudas sintomáticas**
 - **Drenaje de coleccion aguda necrotica infectada**
 - **Drenaje de pseudoquistes infectados**
 - **Drenaje de WON**

PUNCION DE PANCREAS



PUNCION DE PANCREAS

Pancreatology 13 (2013) e1–e15



Contents lists available at SciVerse ScienceDirect

Pancreatology

journal homepage: www.elsevier.com/locate/pan



Original article

IAP/APA evidence-based guidelines for the management of acute pancreatitis



Working Group IAP/APA Acute Pancreatitis Guidelines^{a,b,*}

^aInternational Association of Pancreatology, UNSW Clinical School Locked Bag 7103, Liverpool, BC NSW 1871, Australia

^bAmerican Pancreatic Association, PO Box 14906, Minneapolis, MN 55414, USA

i. Timing for intervention in necrotizing pancreatitis

29. Routine percutaneous fine needle aspiration of peripancreatic collections to detect bacteria is not indicated, because clinical signs (i.e. persistent fever, increasing inflammatory markers) and imaging signs (i.e. gas in peripancreatic collections) are accurate predictors of infected necrosis in the majority of patients. Although the diagnosis of infection can be confirmed by fine needle aspiration (FNA) there is a risk of false negative results. (GRADE 1C strong agreement).

Gastroenterology

recommendations.

Conclusions: The 2012 IAP/APA guidelines provide recommendations concerning key aspects of medical and surgical management of acute pancreatitis based on the currently available evidence. These recommendations should serve as a reference standard for current management and guide future clinical research on acute pancreatitis.

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Papel del Intervencionismo en la Pancreatitis Aguda

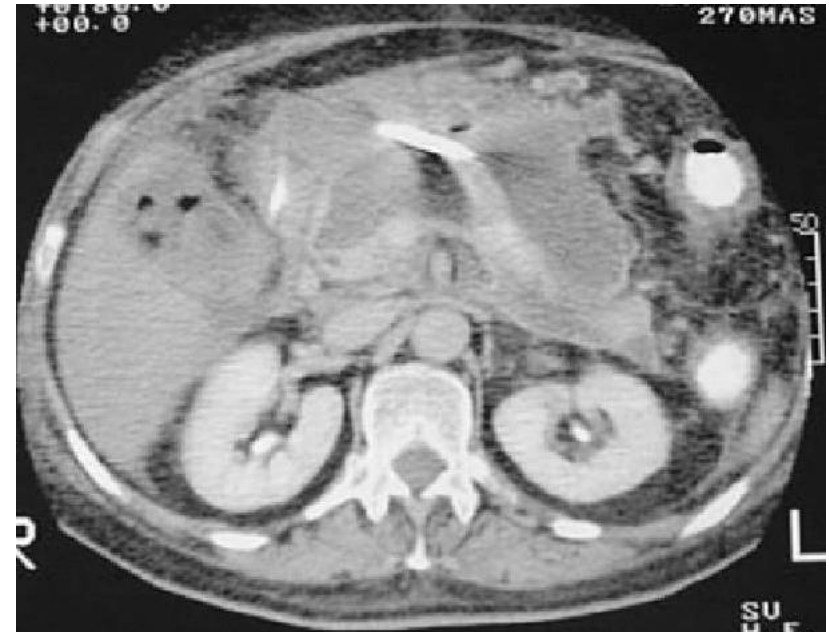
Terapéutica = Drenaje

- Qué drenar ?
- Cuando drenar ?
- Como drenar ?

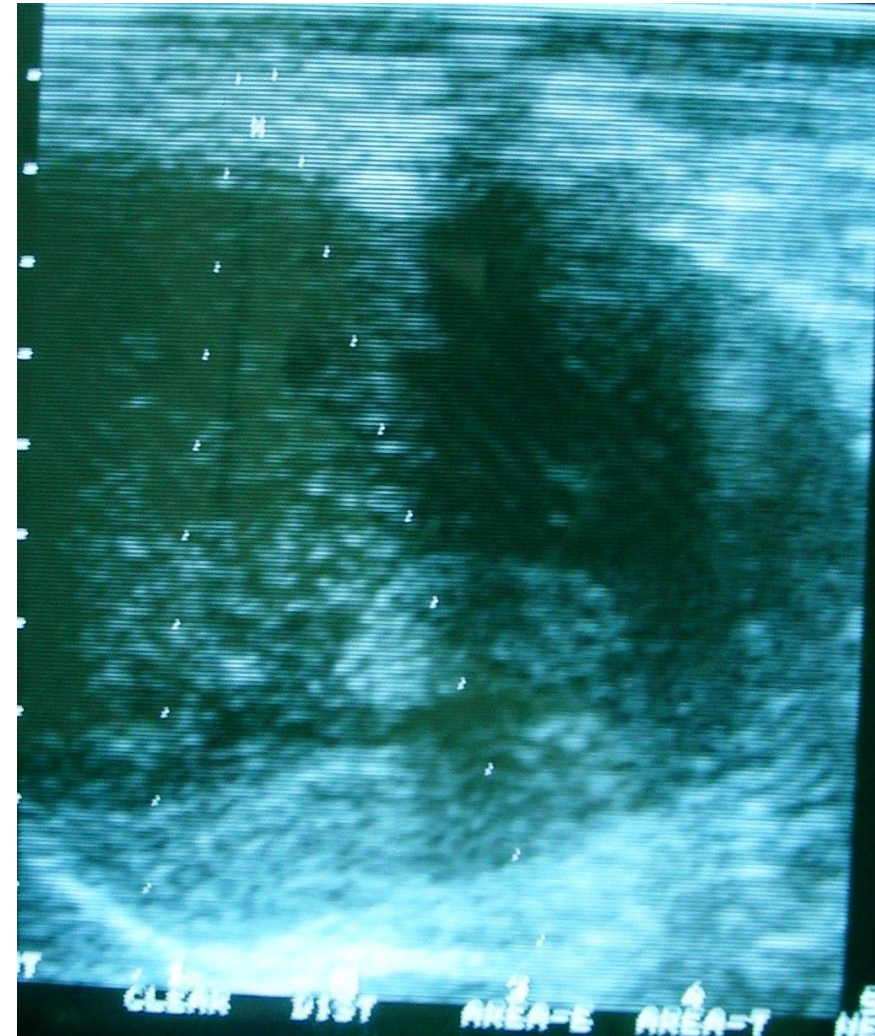
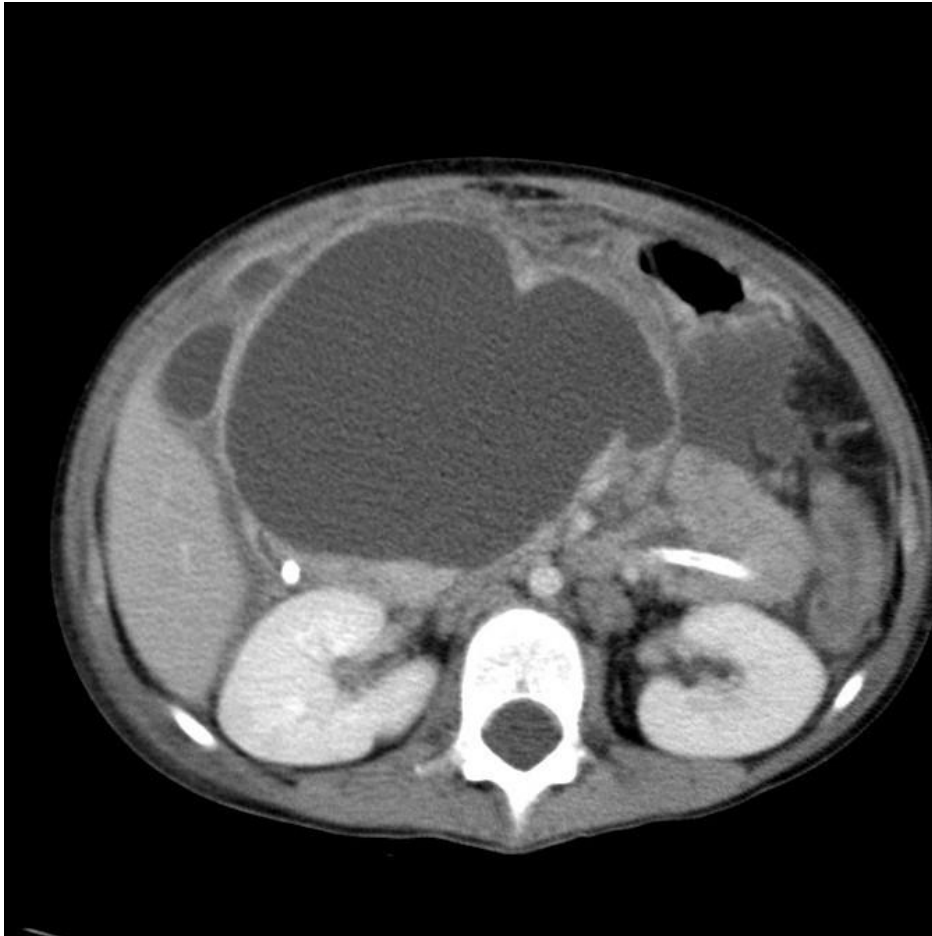
COLECCIÓN LIQUIDA AGUDA

- **Colección líquida de aparición temprana**
- **Carecen de pared fibrosa**
- **En leves y severas (30 a 50 %)**
- **En más del 50 % de los casos se reabsorben espontáneamente**
- **No se recomienda intervenir**

COLECCIÓN AGUDA



COLECCIÓN AGUDA





1500

1500

1000

1000

500

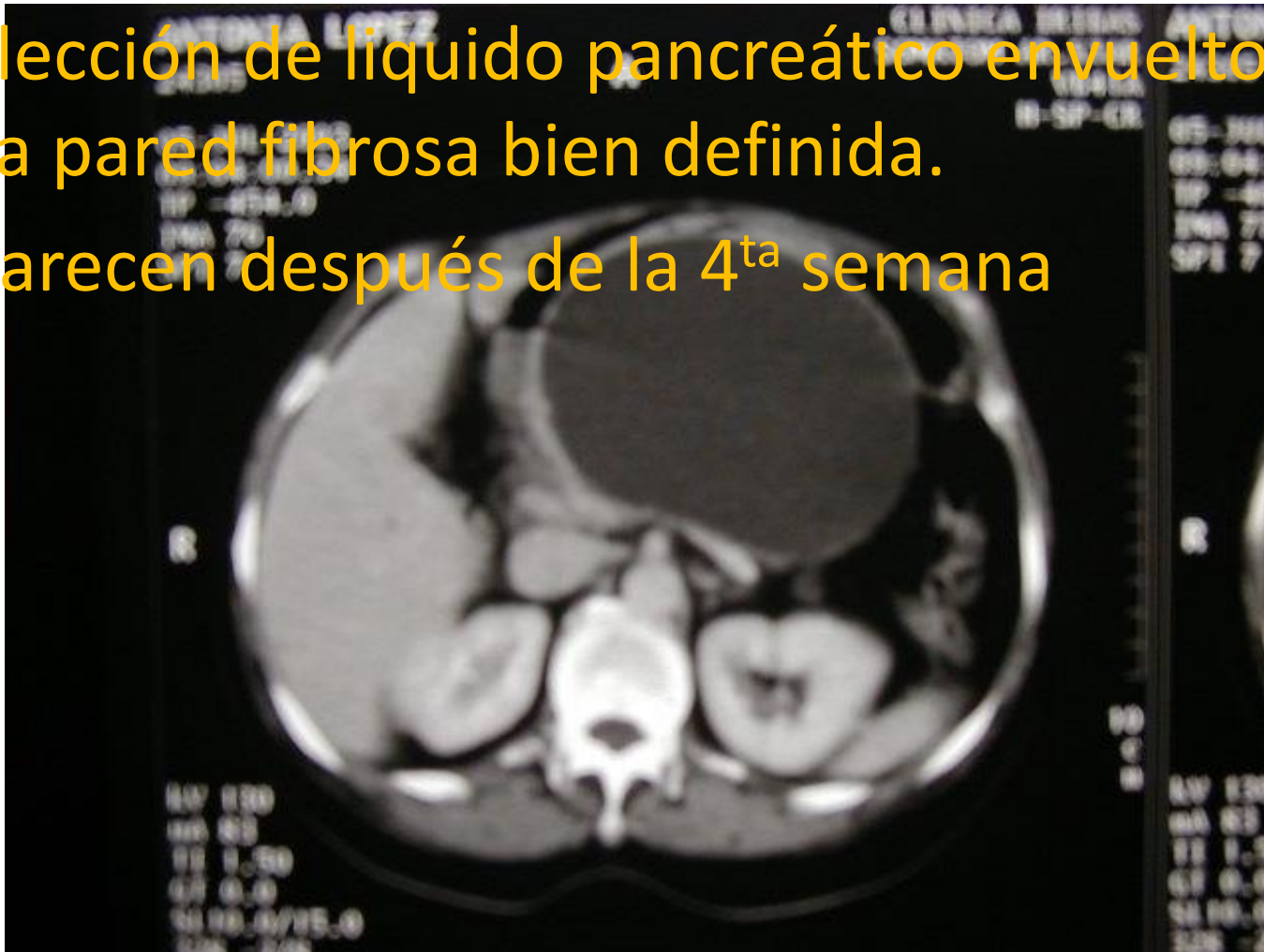
500

APPROXIMATE CM

CE

PSEUDOQUISTE DE PANCREAS

- Colección de líquido pancreático envuelto por una pared fibrosa bien definida.
- Aparecen después de la 4^{ta} semana



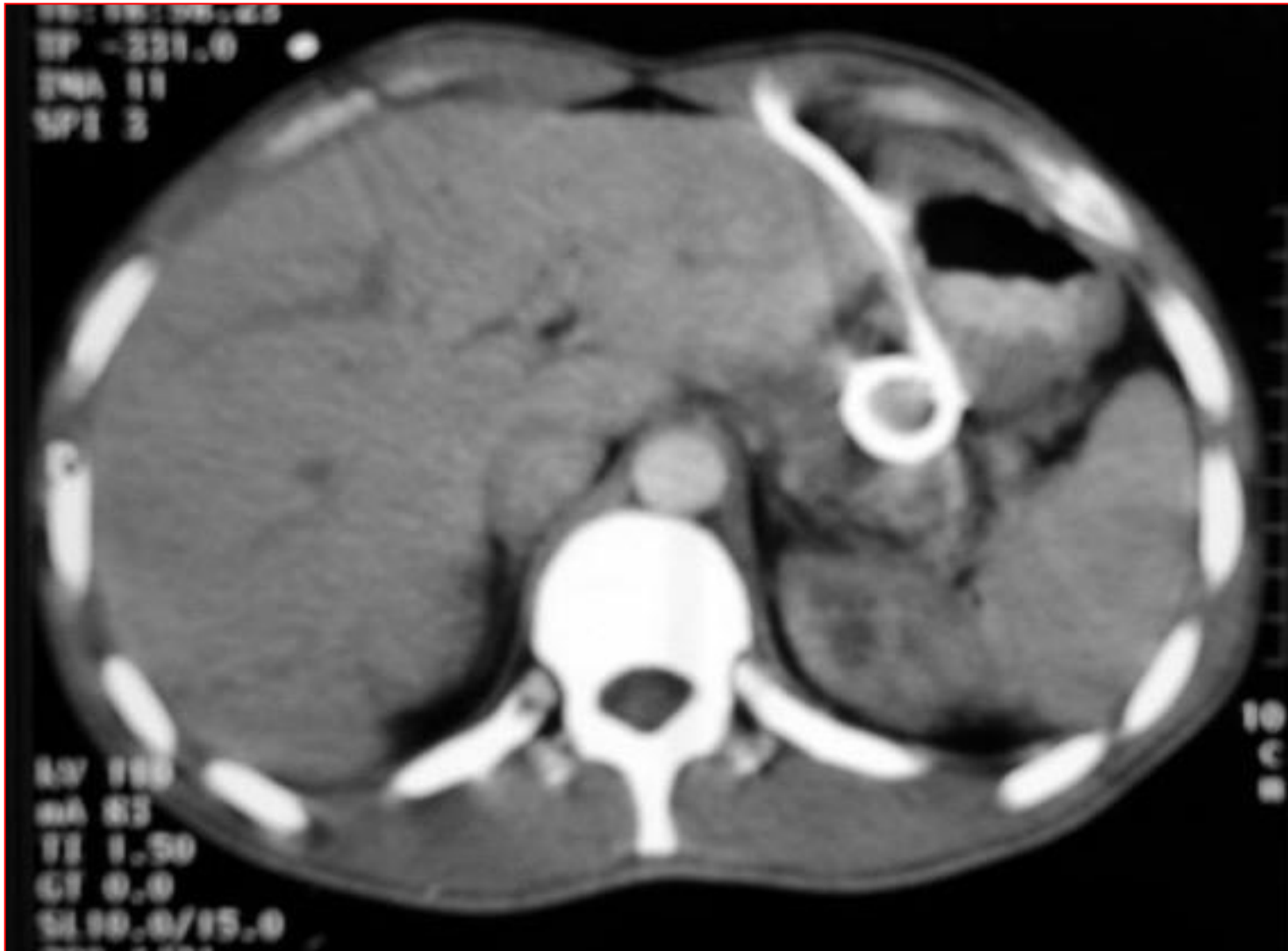
PSEUDOQUISTE DE PANCREAS

MANEJO

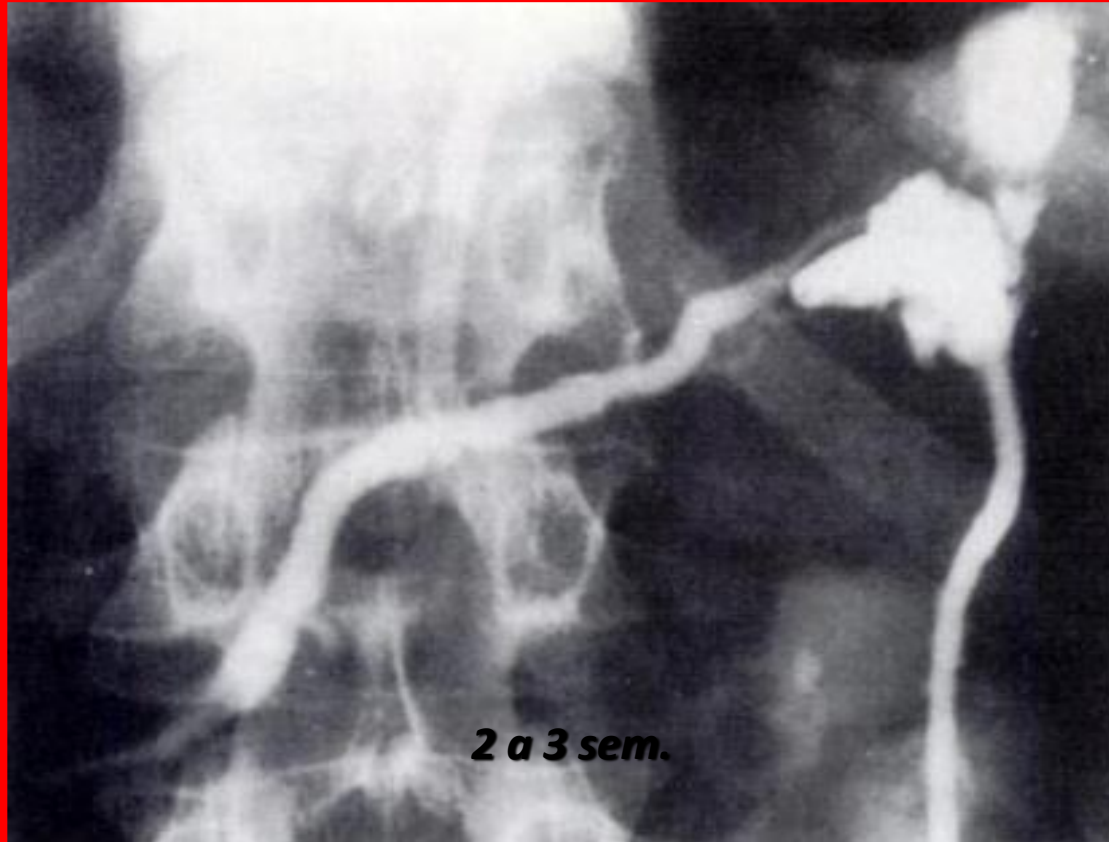
SINTOMATICO = INTERVENCIÓN
ASINTOMÁTICO = EXPECTANTE

- **MANEJO EXPECTANTE: hasta seis semanas y menor de seis cms.**
- **MANEJO INTERVENSIONISTA (DRENAJE)**
 - **QUIRÚRGICO**
 - Drenaje externo
 - Drenaje interno
 - Quistogastrostomia
 - Quistoyeyunostomia
 - Quistoduodenostomia
 - Reseccion pancreática
 - **DRENAJE ENDOSCOPICO**
 - Quistogastro o duodenostomia
 - Transpapilar
 - **DRENAJE PERCUTANEO**

SEUDOQUISTE DE PANCREAS



PSEUDOQUISTE DE PANCREAS



ÉXITO: 80 al 90%

Resultados según el tipo de manejo

	MORBILIDAD	MORTALIDAD	RECIDIVA	EXITO
Expectante (5)	0	0	0	100 %
Quirúrgico (5)	2	0	0	60 %
Percutáneo (3)	1*	1*	1	33 %

* Se refiere al mismo paciente

COLECCIÓN AGUDA NECROTICA **INFECTADA**

**WALLED-OFF NECROSIS (WON)
NECROSIS ENCAPSULADA**

Evolución del tratamiento de la NPI



- Necrosectomía quirúrgica (morb. hasta 95%, Mort. del 20 al 40%)
- Realizarla lo más tardíamente posible (4 sem.) luego del inicio de la enfermedad mejora resultados.
- El manejo agresivo médico para retardar la intervención y permitir la organización y encapsulamiento de la necrosis es el nuevo dogma.
- Se desarrollaron múltiples opciones menos invasivas
 - Drenaje percutáneo con catéter guiado por imágenes (Freeny, 1998)
 - Drenaje endoscópico transmural o transpapilar
 - Necrosectomía retroperitoneal minimamente invasiva
 - Debridamiento retroperitoneal video asistida (VARD)
 - Necrosectomía endoscópica transgástrica
 - Necrosectomía laparoscópica
 - Cistogastrostomía laparoscópica

A Step-up Approach or Open Necrosectomy for Necrotizing Pancreatitis



- **“Step-up-approach” “Panther Trial, 2010”**
 - Ir aumentando, de un tratamiento menos invasivo a otro más invasivo, de acuerdo a las indicaciones y evolución del cuadro.
 - 88 pacientes en dos grupos: Step-up vs NQX
 - Primer paso: manejo médico intensivo
 - Segundo paso: drenaje percutáneo
 - Tercer paso: aumento del diámetro y redrenaje
 - Cuarto paso: VARD

A Step-up Approach or Open Necrosectomy for Necrotizing Pancreatitis

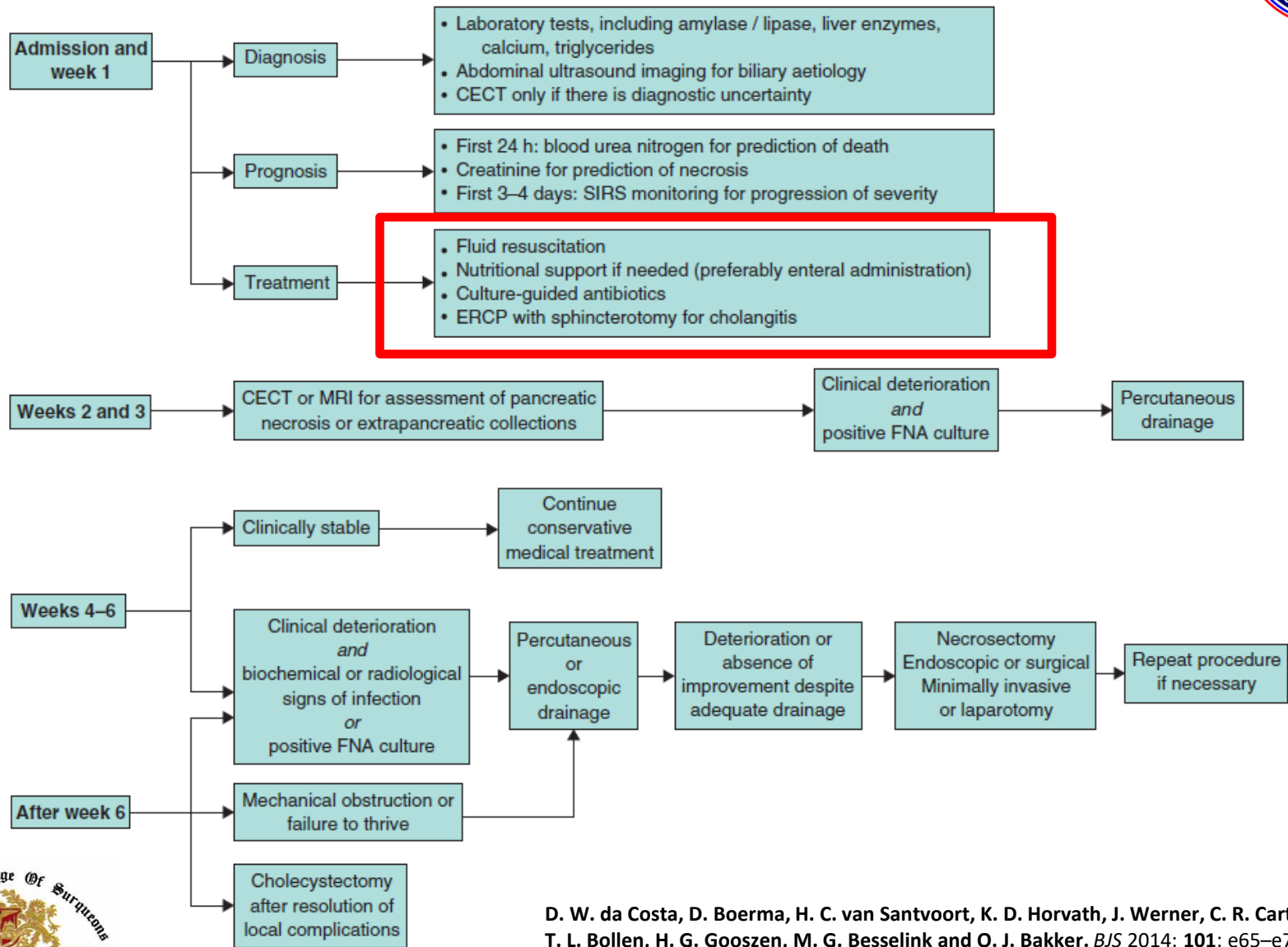


• N= 88	43 Step-up (35% solo drenaje)	45 Nec. Qx
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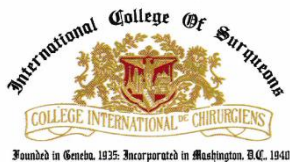
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*n engl j med 362;16
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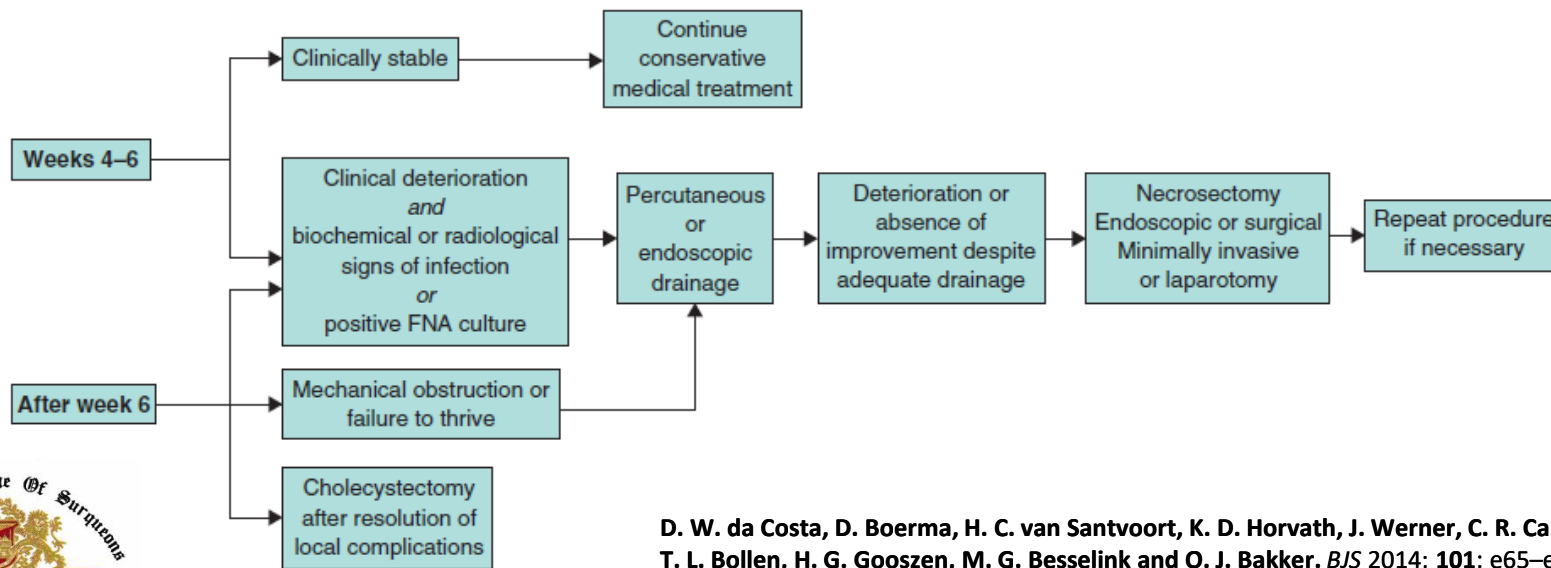
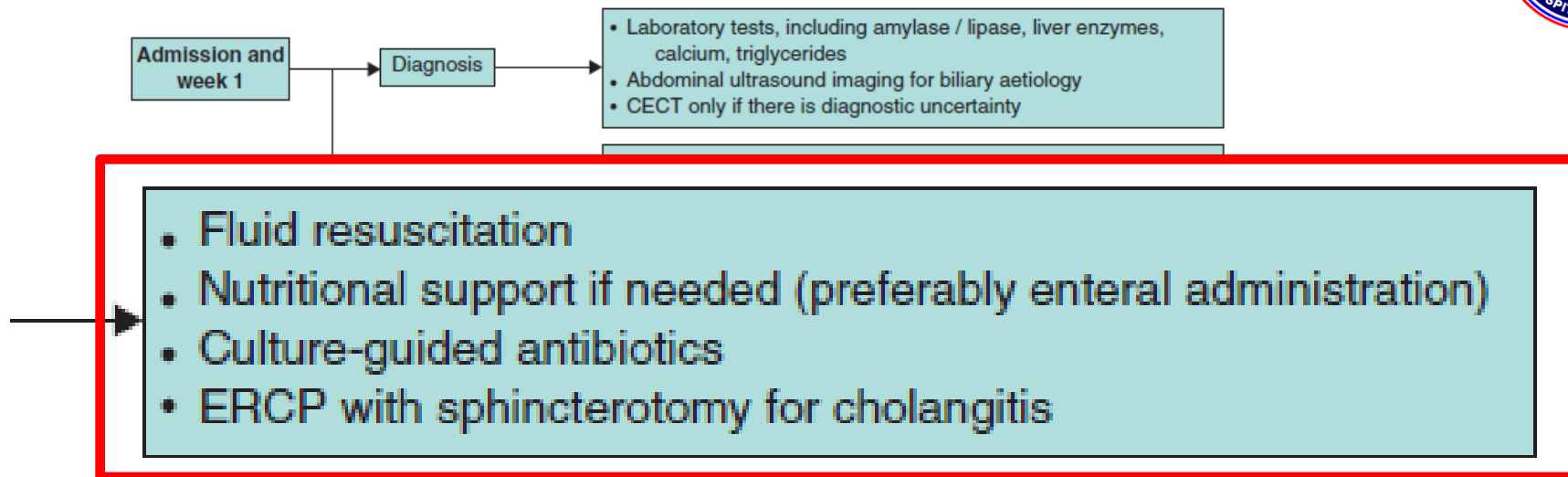
Staged multidisciplinary step-up management for necrotizing pancreatitis



D. W. da Costa, D. Boerma, H. C. van Santvoort, K. D. Horvath, J. Werner, C. R. Carter, T. L. Bollen, H. G. Gooszen, M. G. Besselink and O. J. Bakker. *BJS* 2014; 101: e65–e79

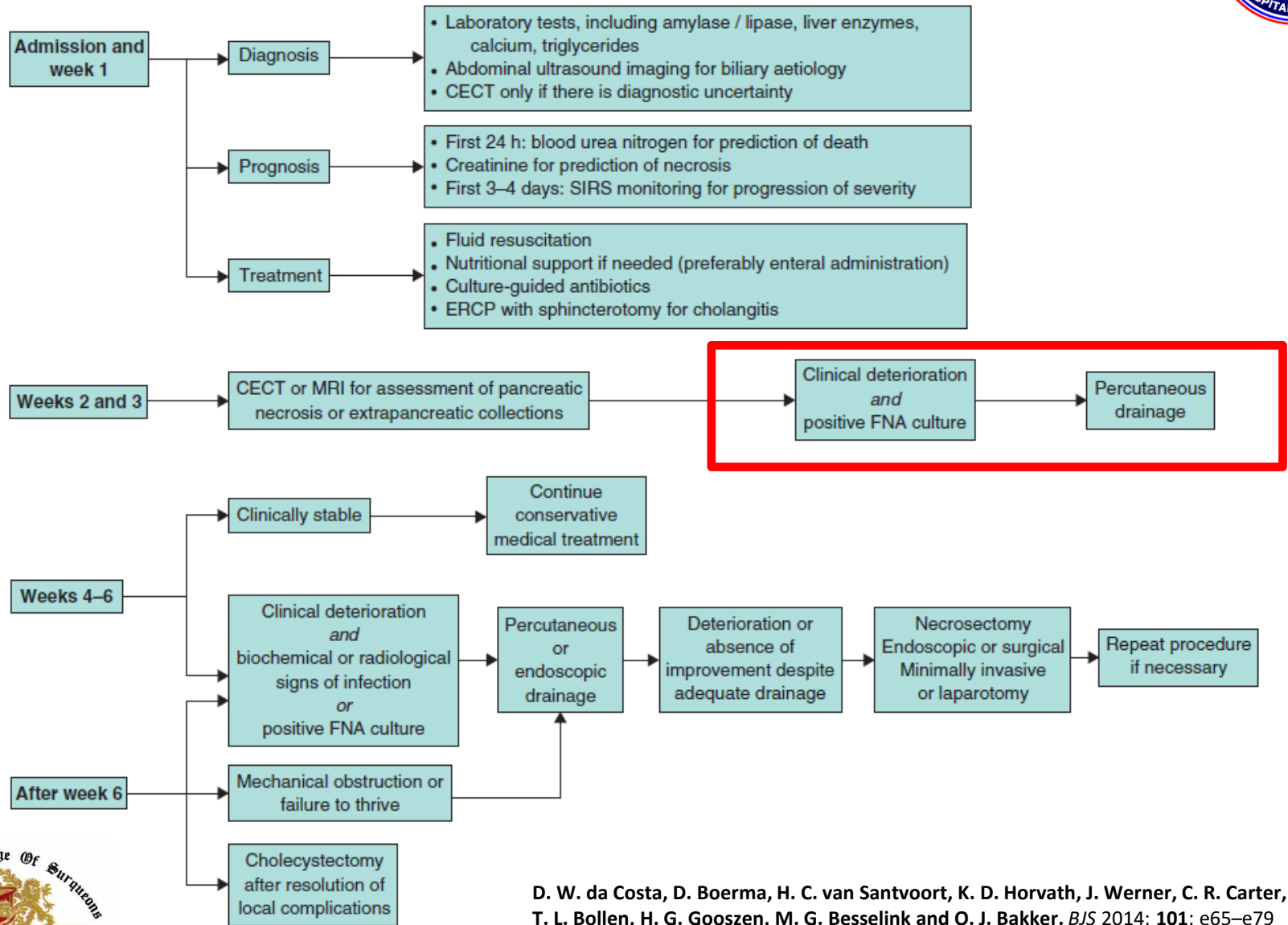


Staged multidisciplinary step-up management for necrotizing pancreatitis



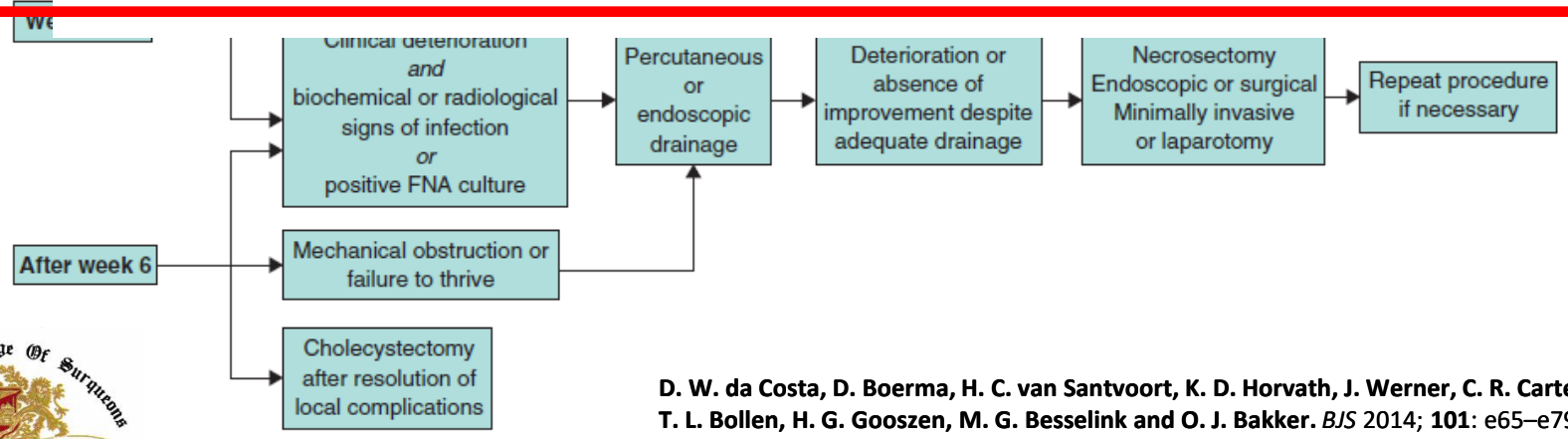
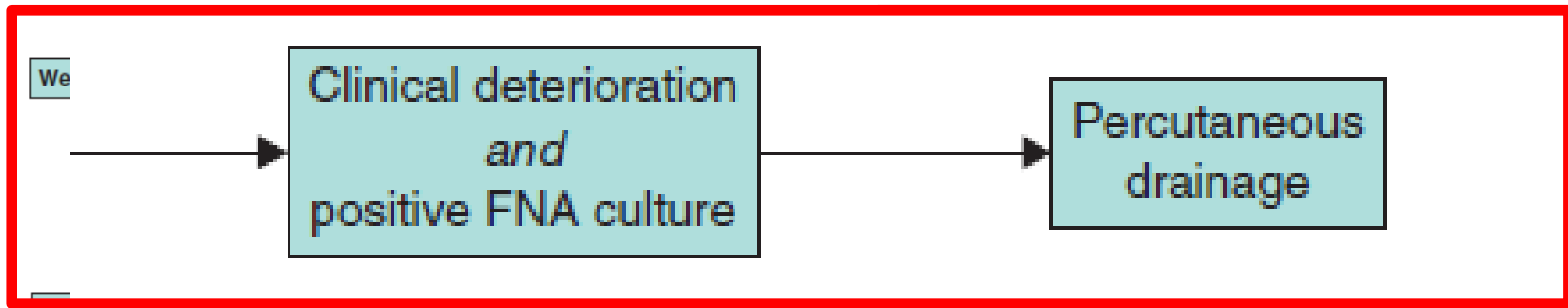
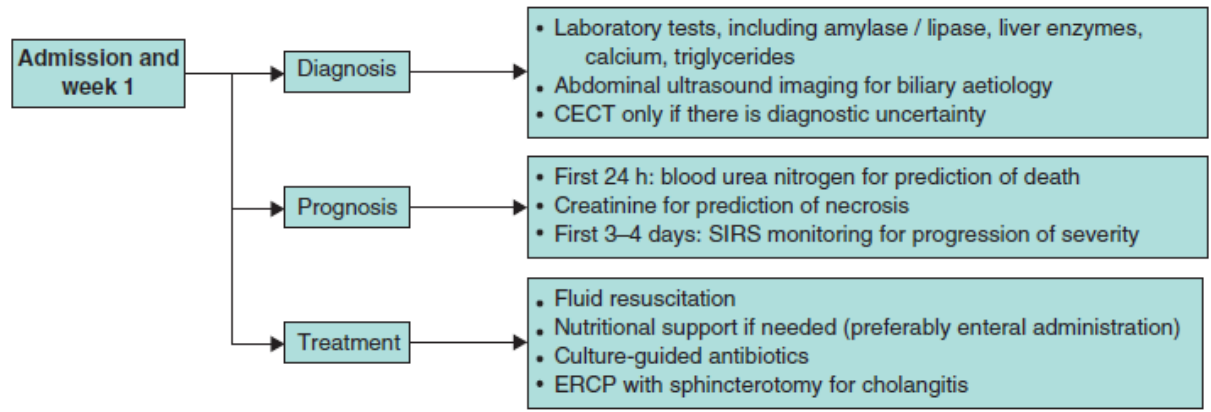
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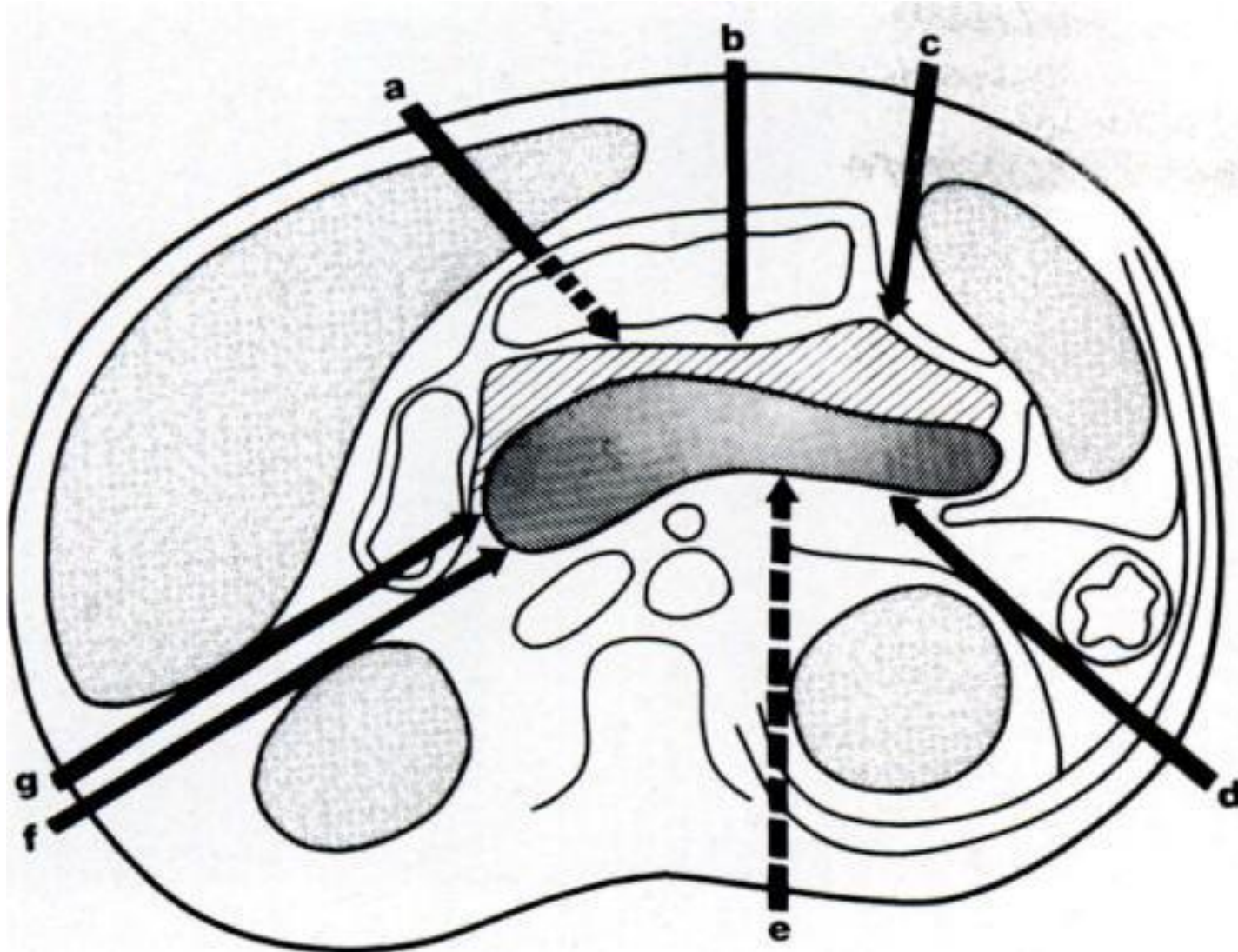
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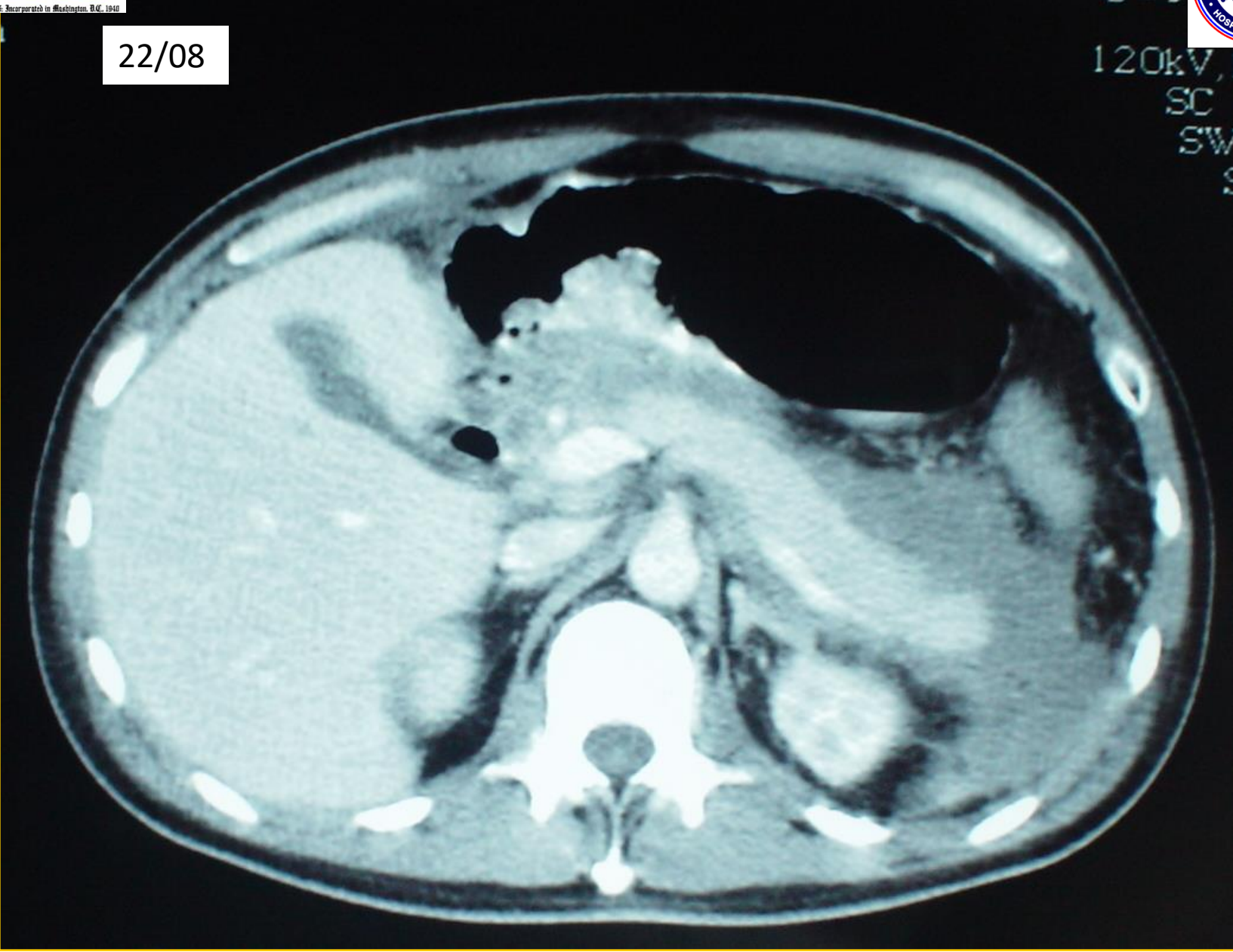


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DRENAJE PERCUTANEO VIAS DE ACCESO AL PANCREAS



22/08



23.5mm

ABDOMEN
C/C

16/09

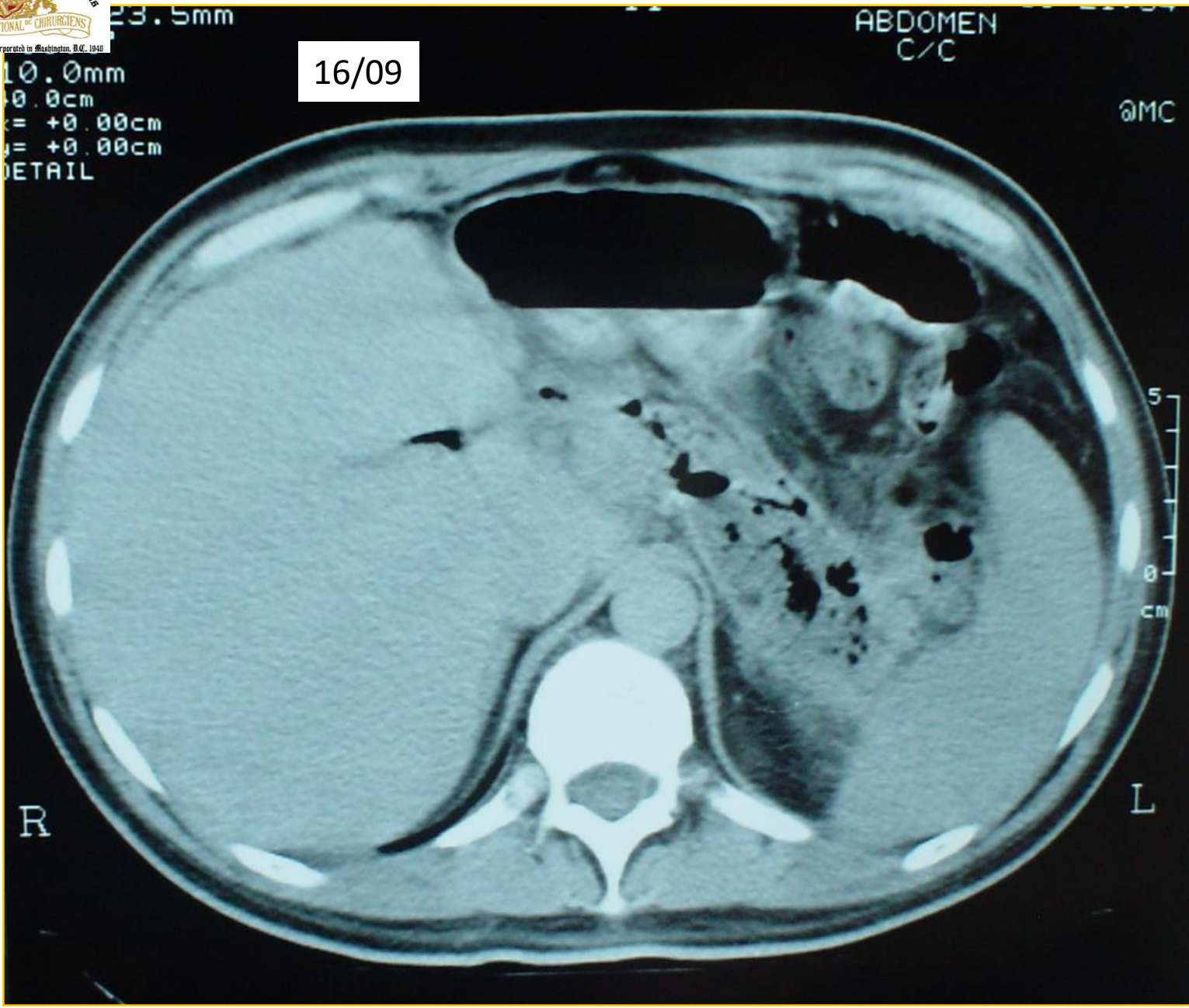
QMC

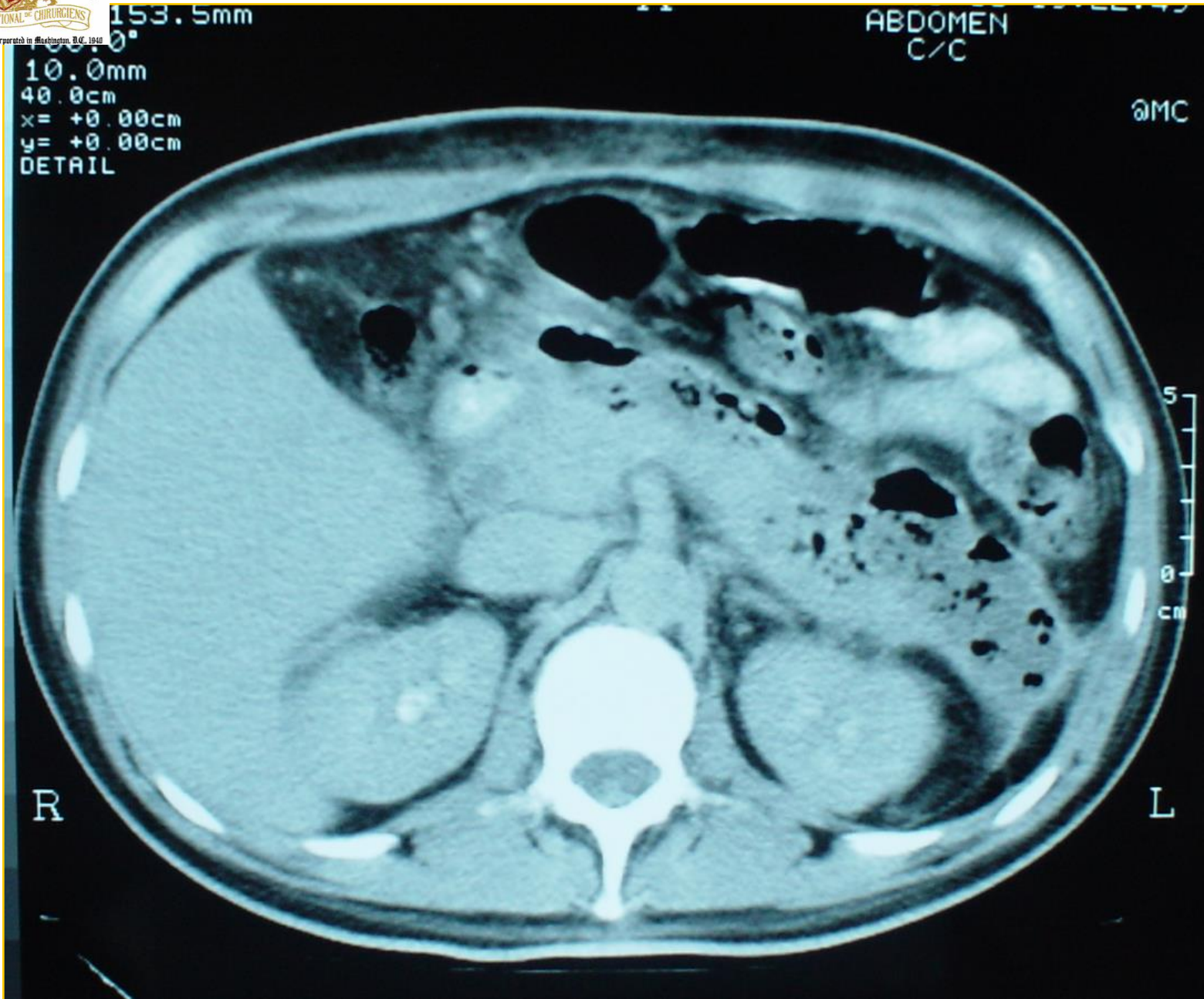
10.0mm
10.0cm
z = +0.00cm
y = +0.00cm
DETAIL

5
0
cm

R

L



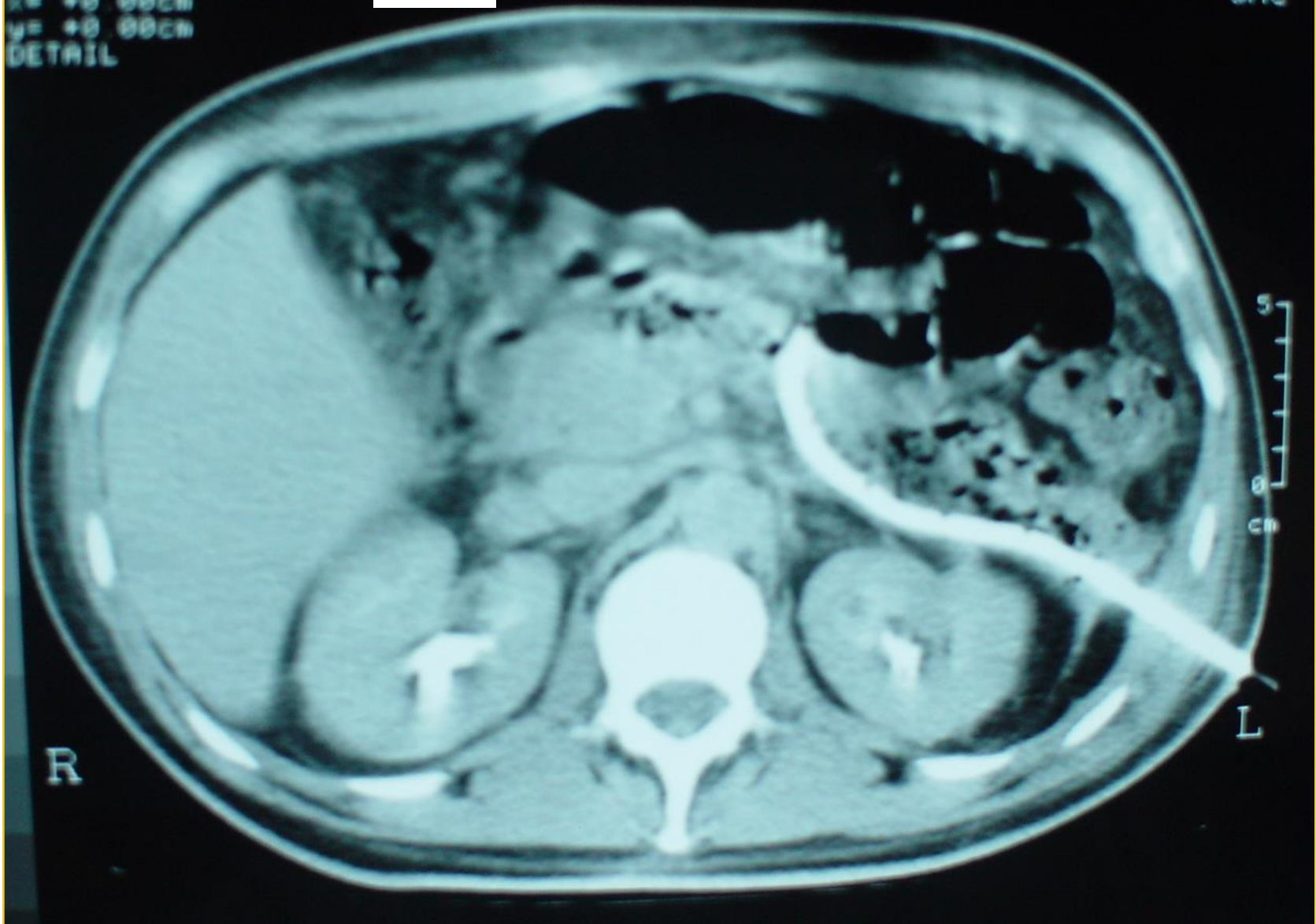


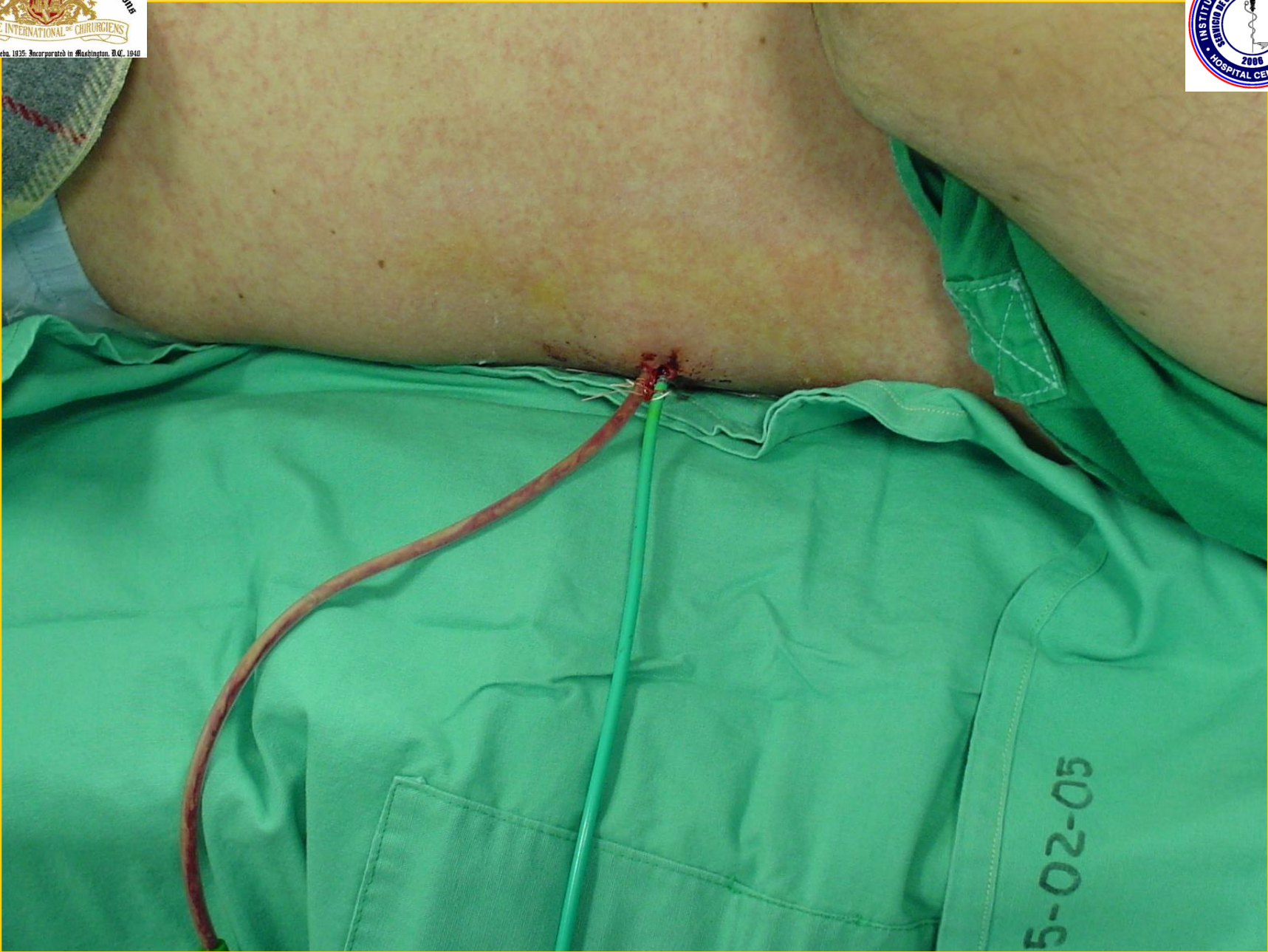
ABDOMEN
C./C

20/09

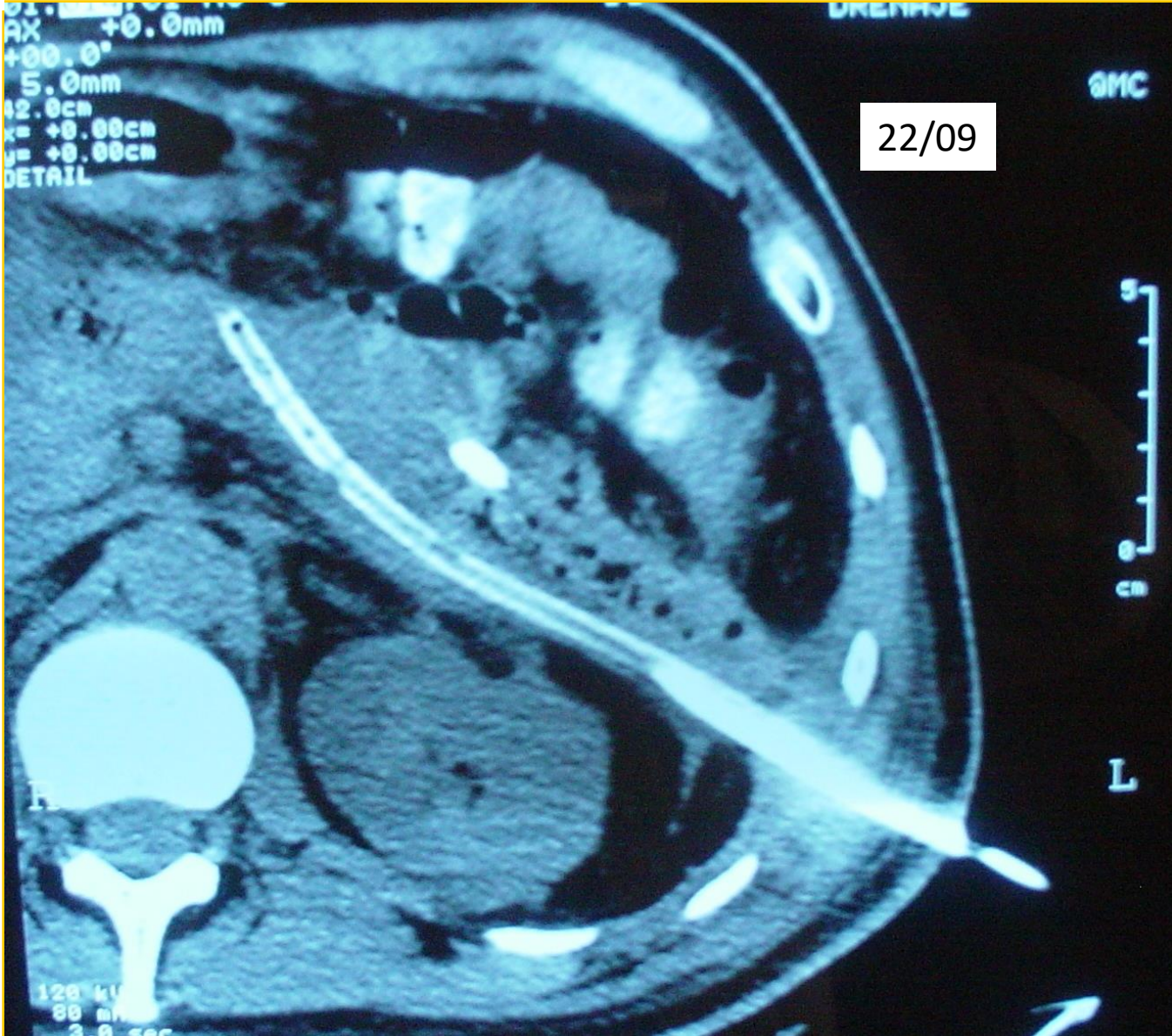
72.5mm
10.0mm
40.0cm
x= +0.00cm
y= +0.00cm
DETAIL

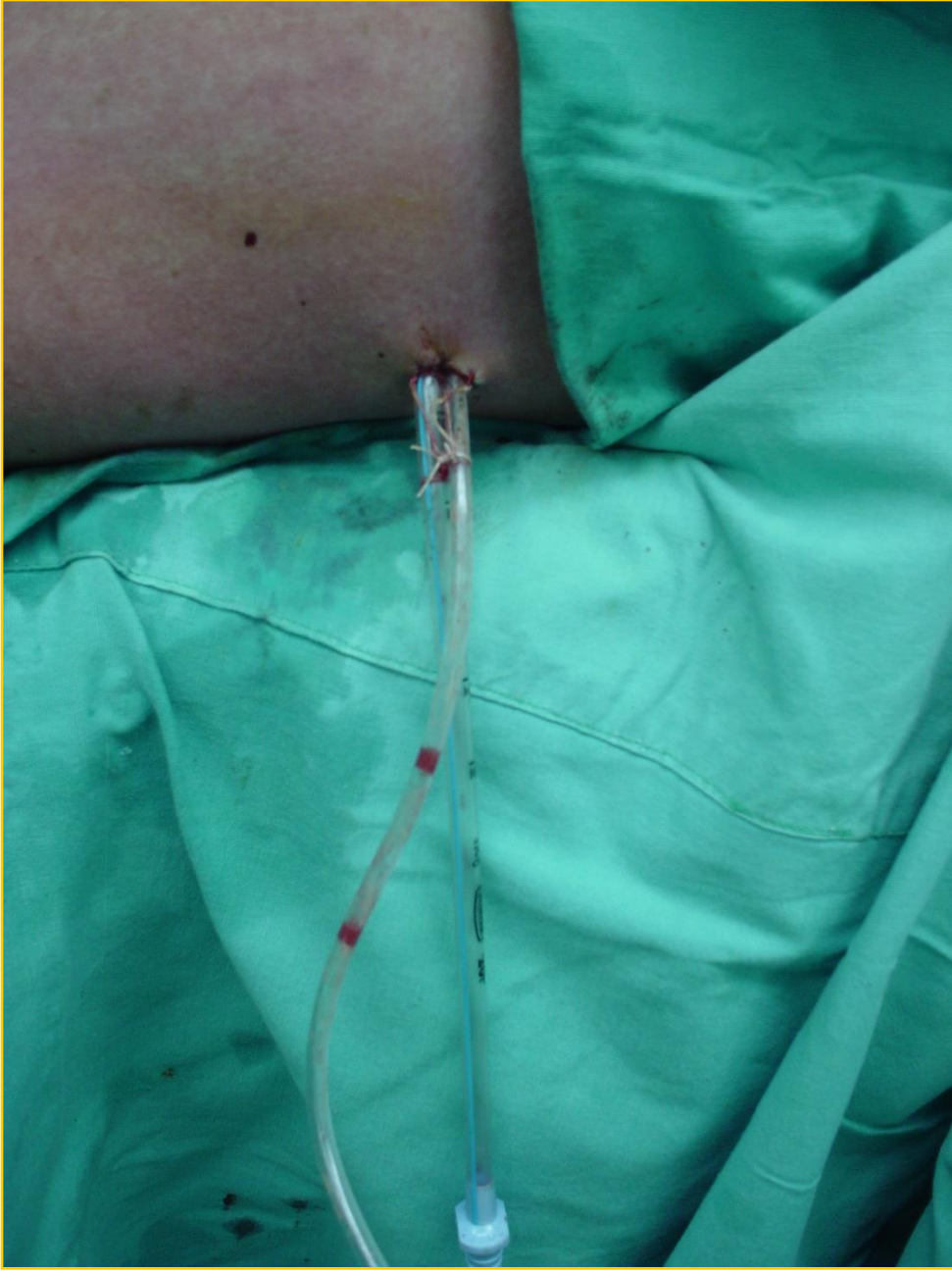
AMC









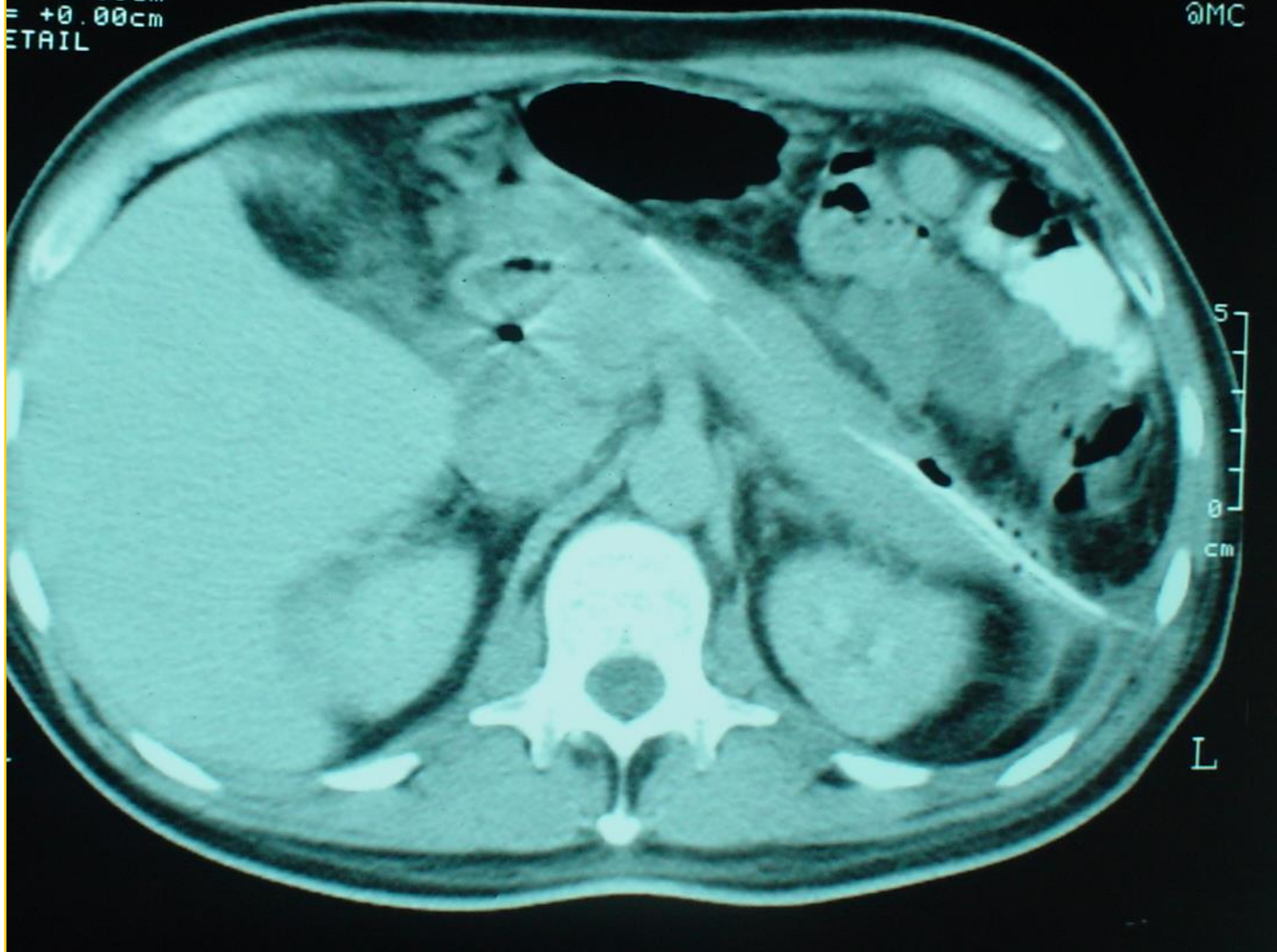


29/09

ABDOMEN
C/C

0.0mm
0.0cm
= +0.00cm
= +0.00cm
DETAIL

AMC



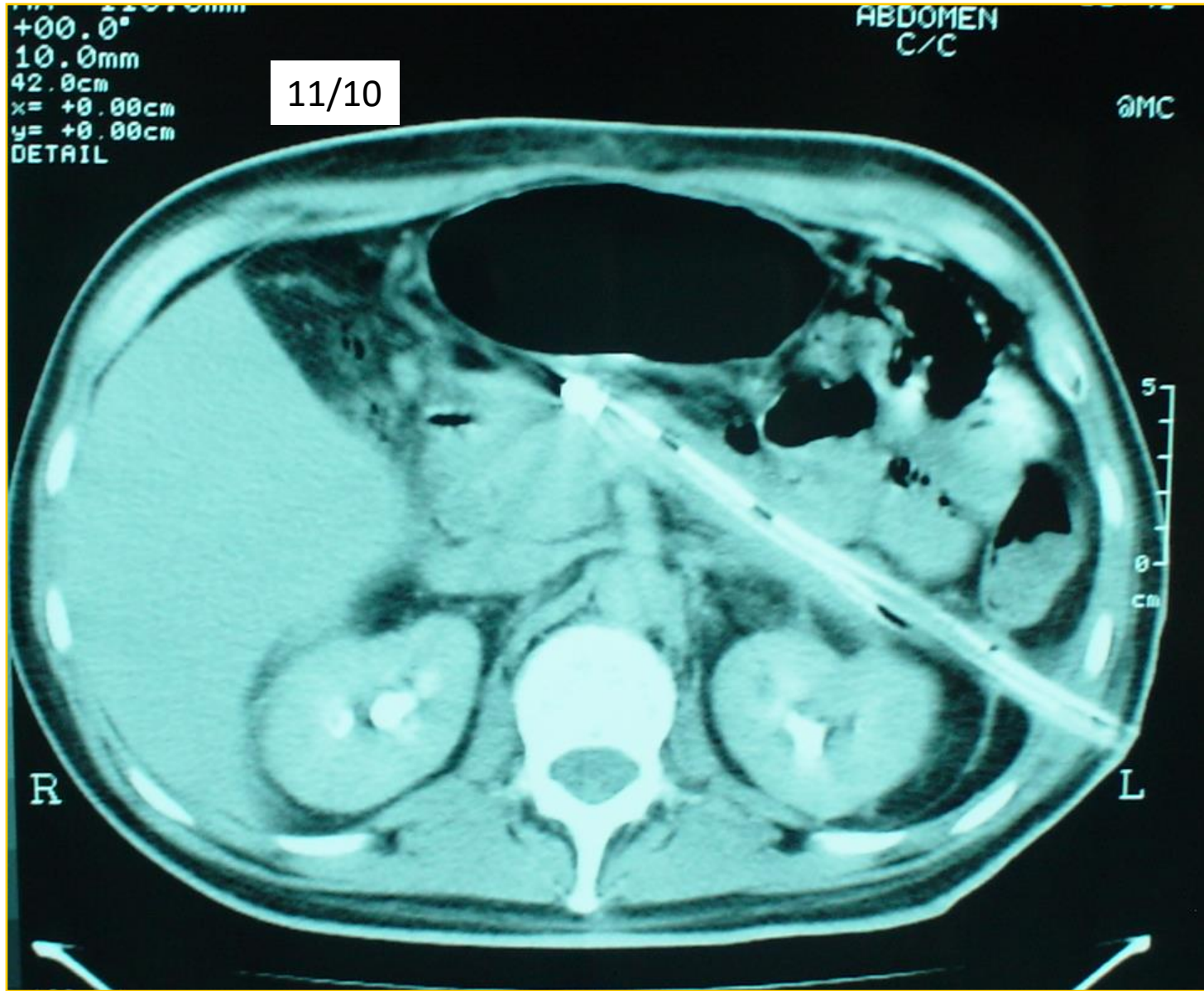
5
0
cm

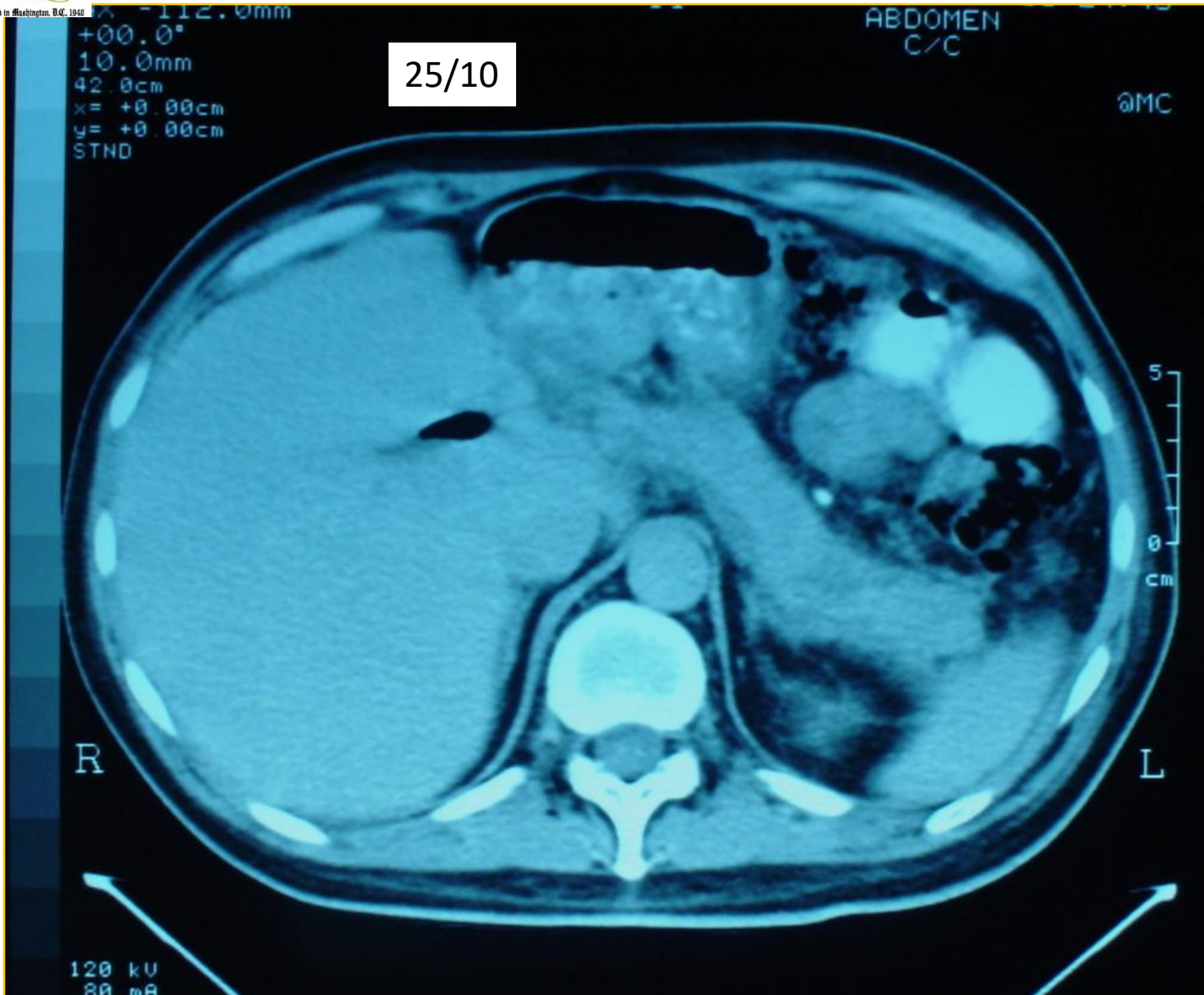
L

Retroperitoneoscopia con lavado 20/

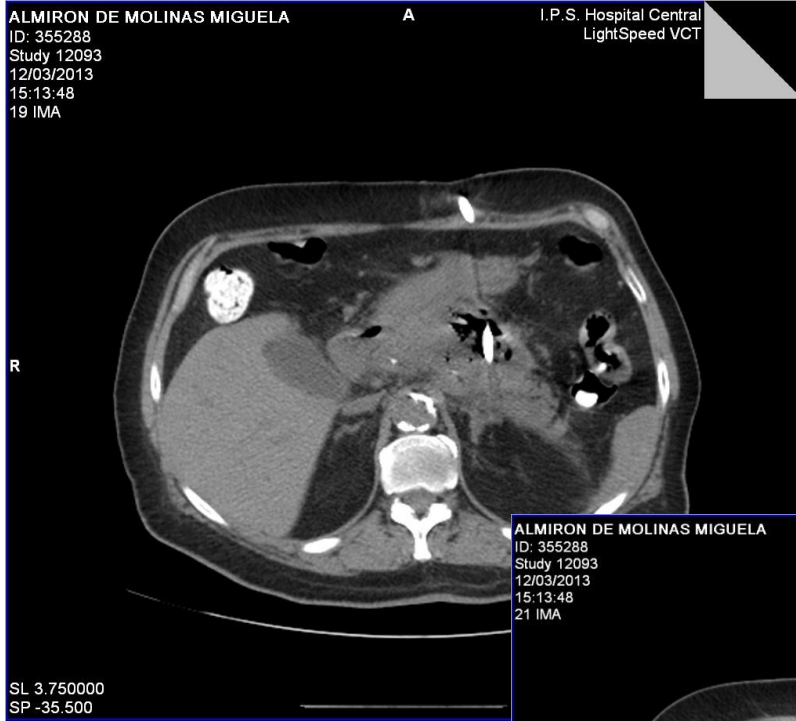




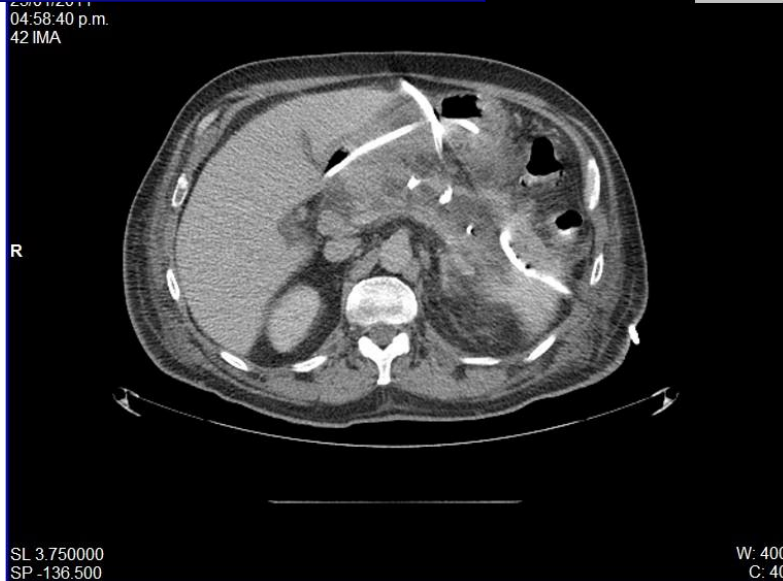
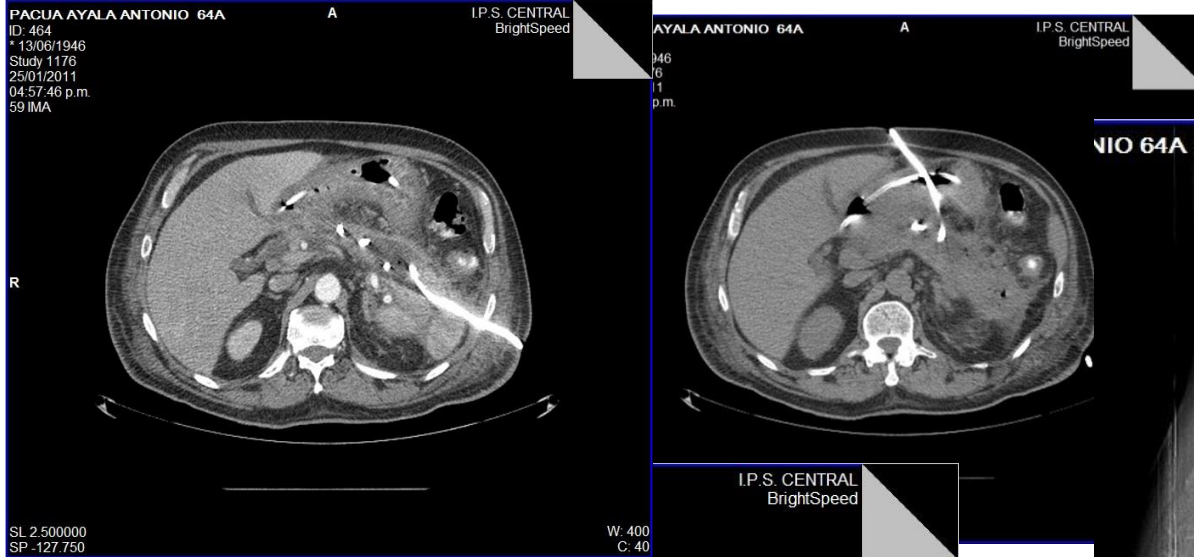




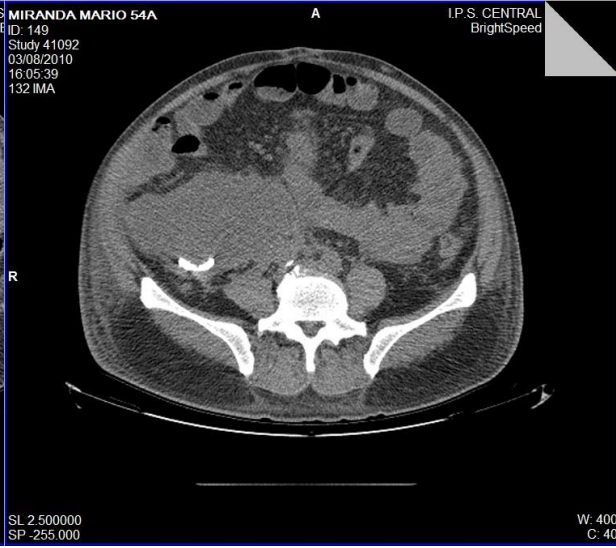
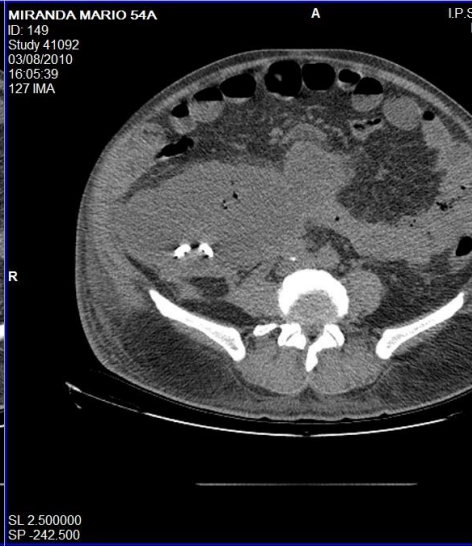
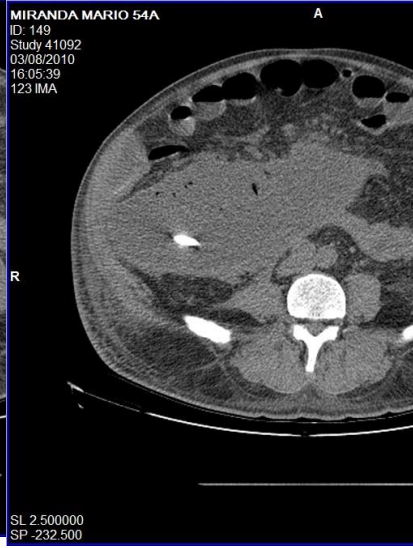
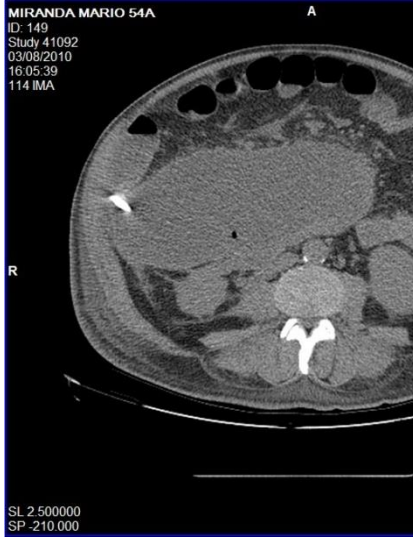
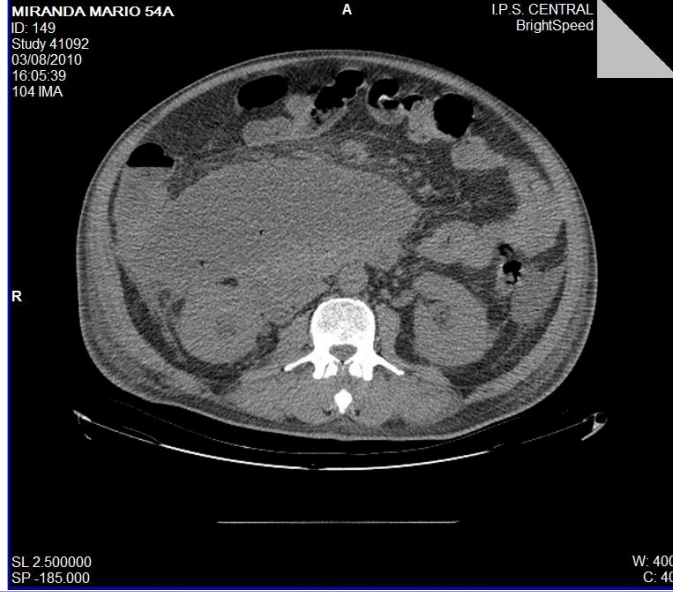
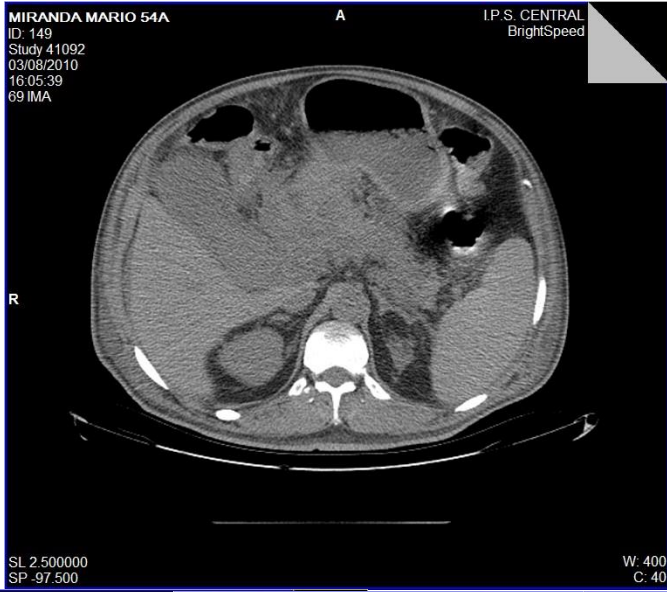
Trans gástrico



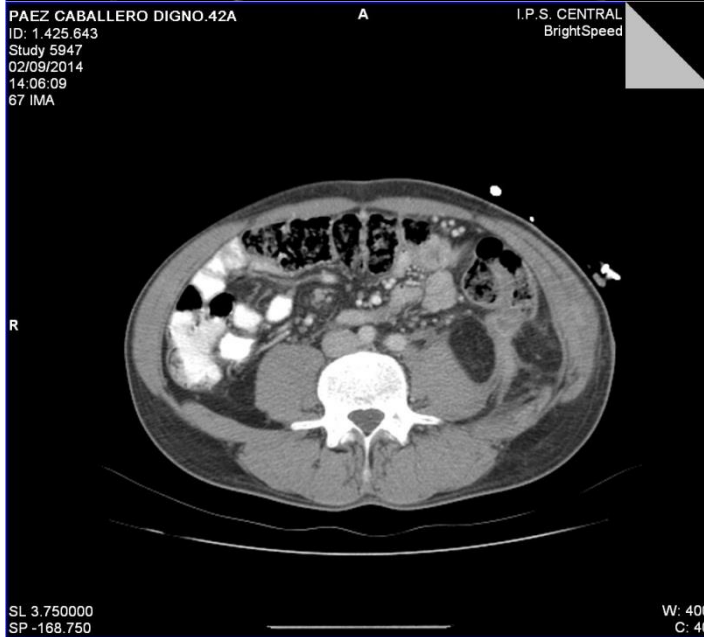
Transgástrico + Prerenal izq.



Fosa iliaca derecha



Flanco izquierdo



A Step-up Approach or Open Necrosectomy for Necrotizing Pancreatitis

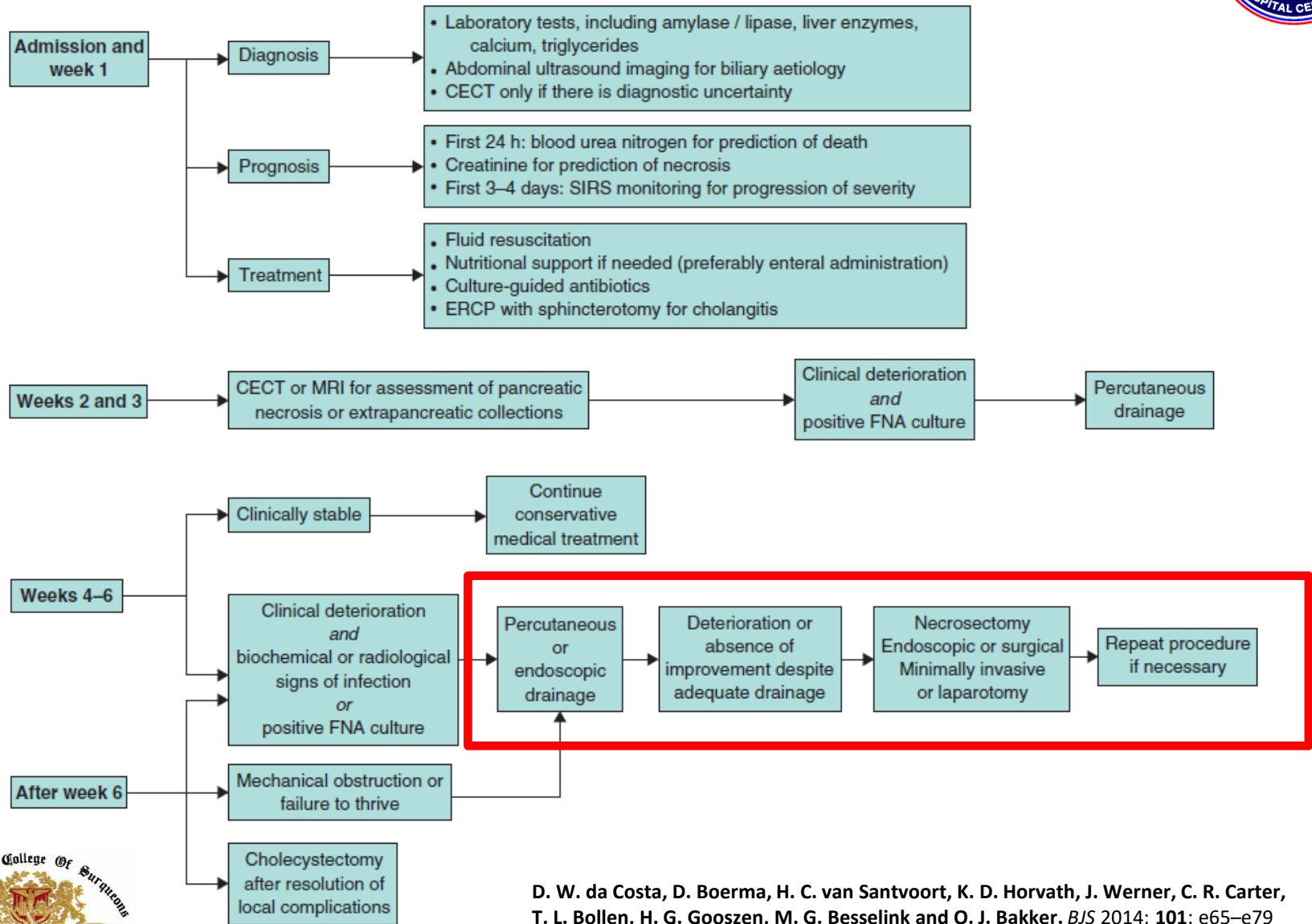


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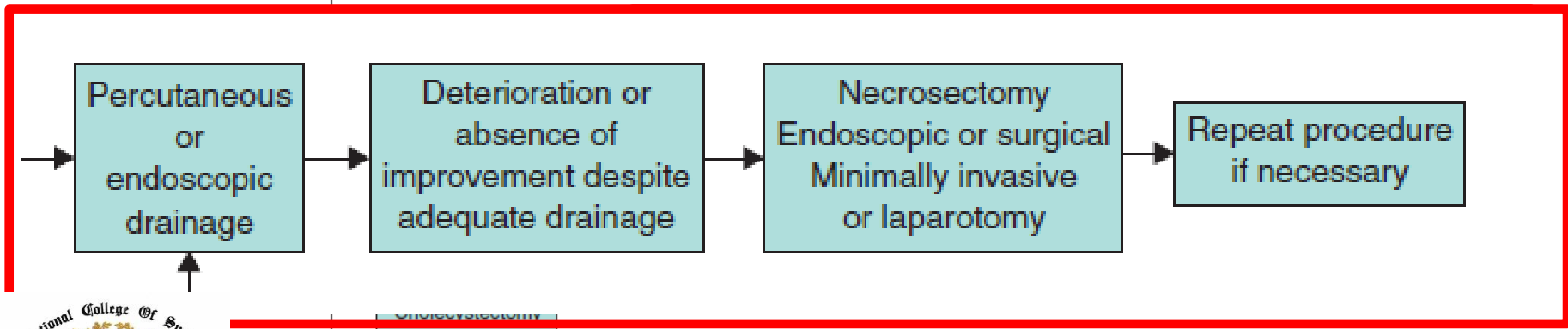
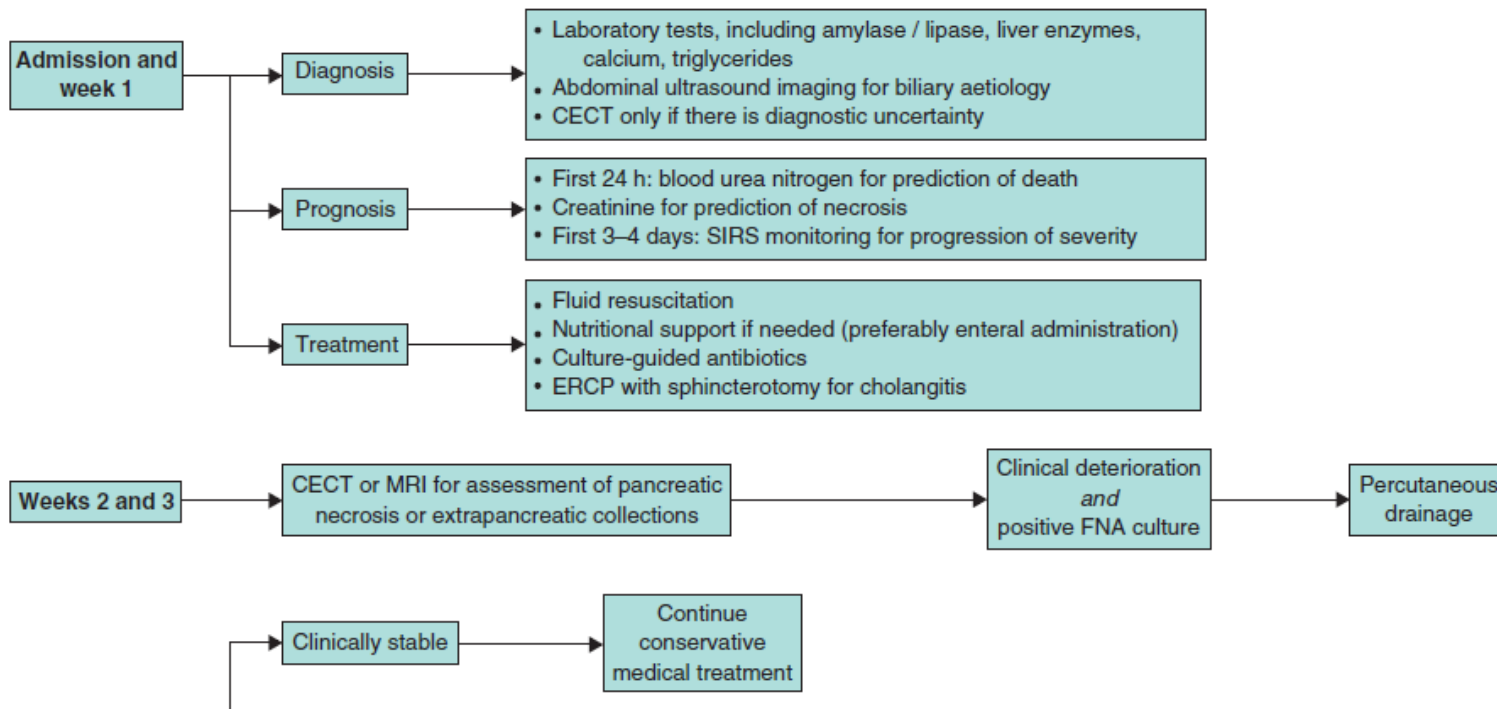
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Staged multidisciplinary step-up management for necrotizing pancreatitis



Staged multidisciplinary step-up management for necrotizing pancreatitis



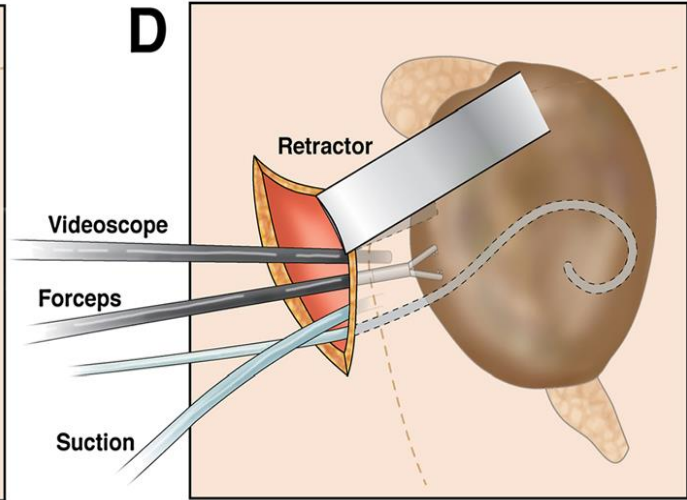
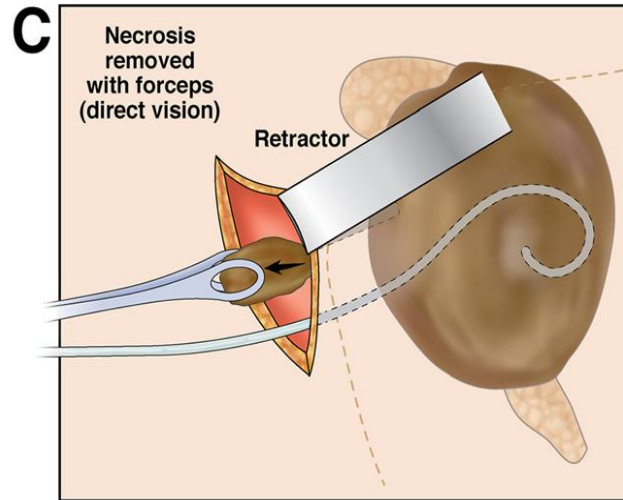
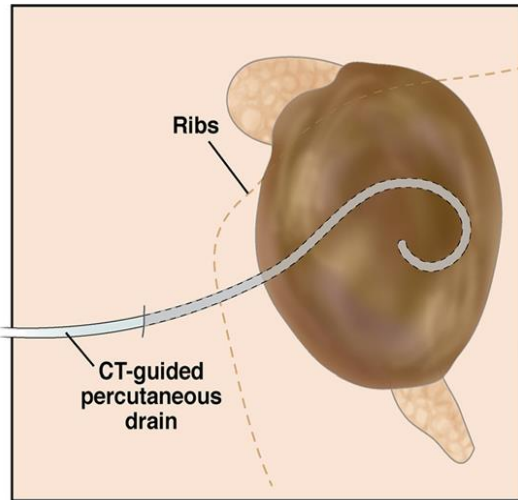
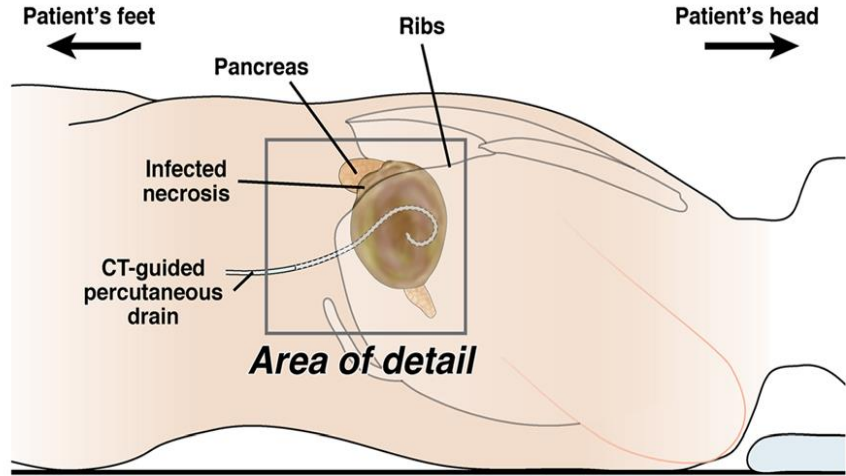
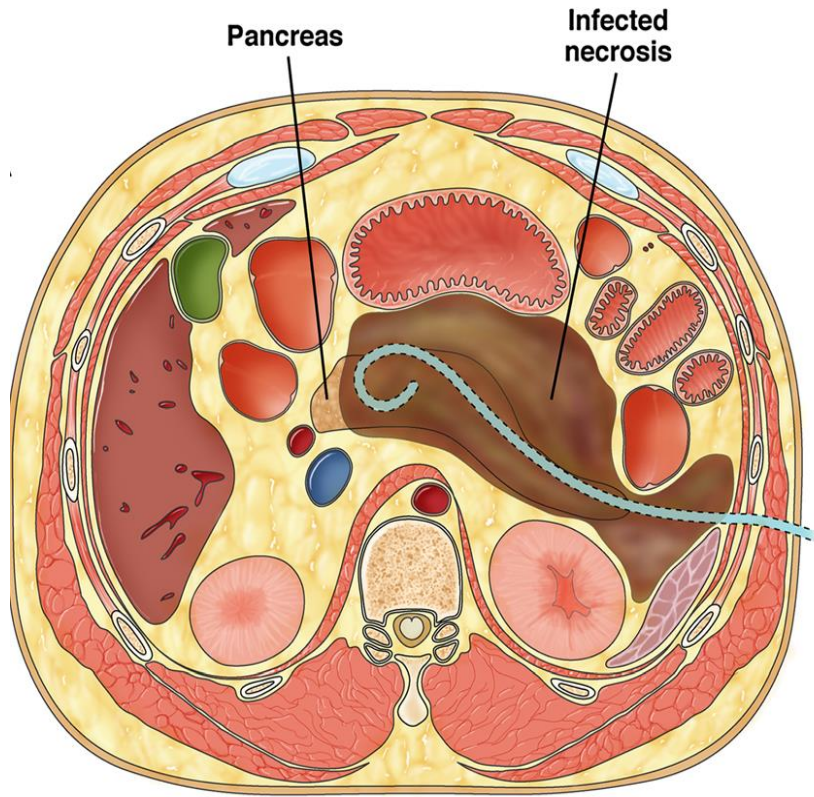
CIRUGIA PERCUTANEA o MINIINVASIVA

RETROPERITONEOSCOPIA TRANS-FISTULAR

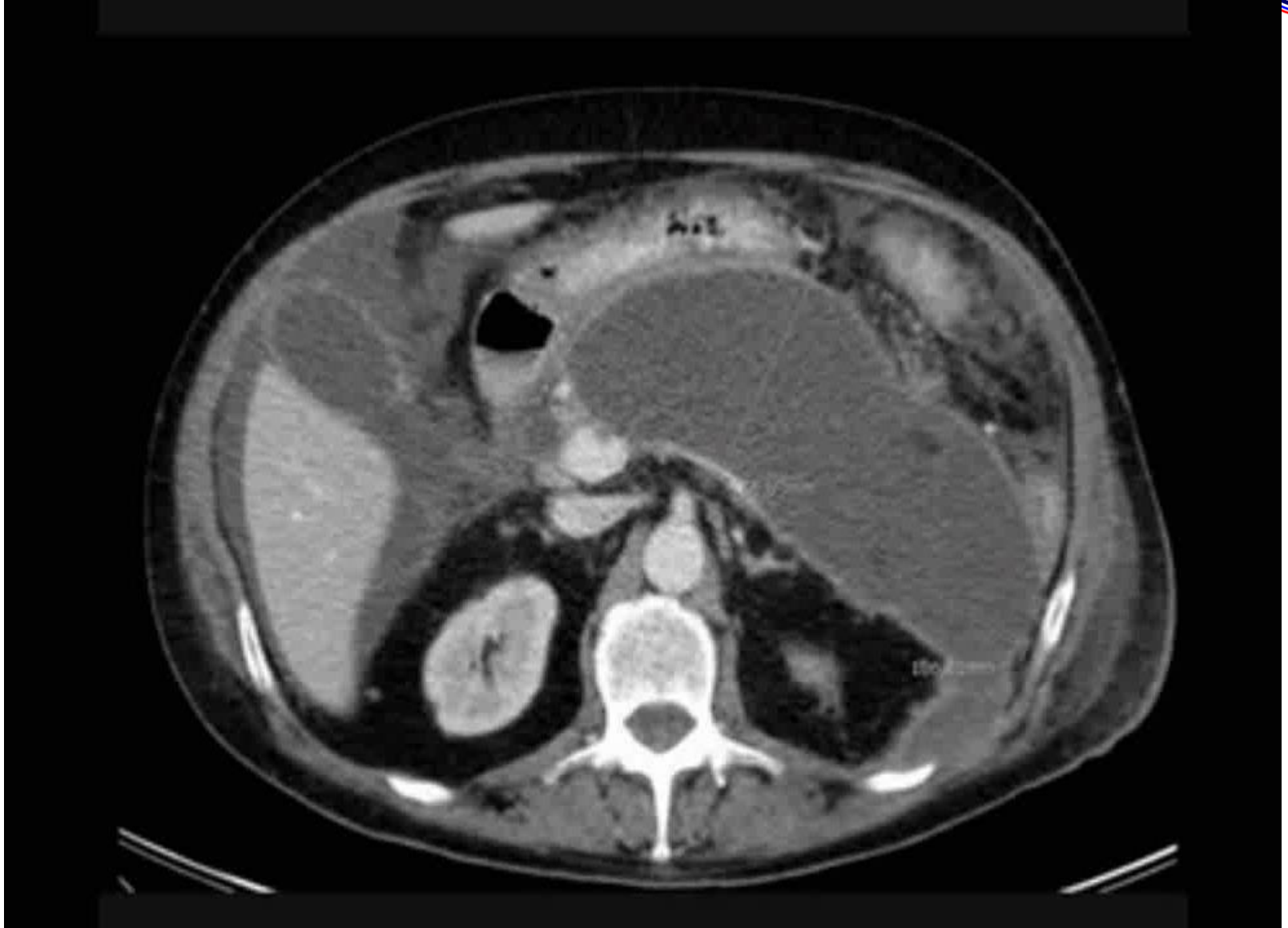
VARD

(Video assisted retroperitoneal debridement)

VARD



VARD





A Step-up Approach or Open Necrosectomy Necrotizing Pancreatitis

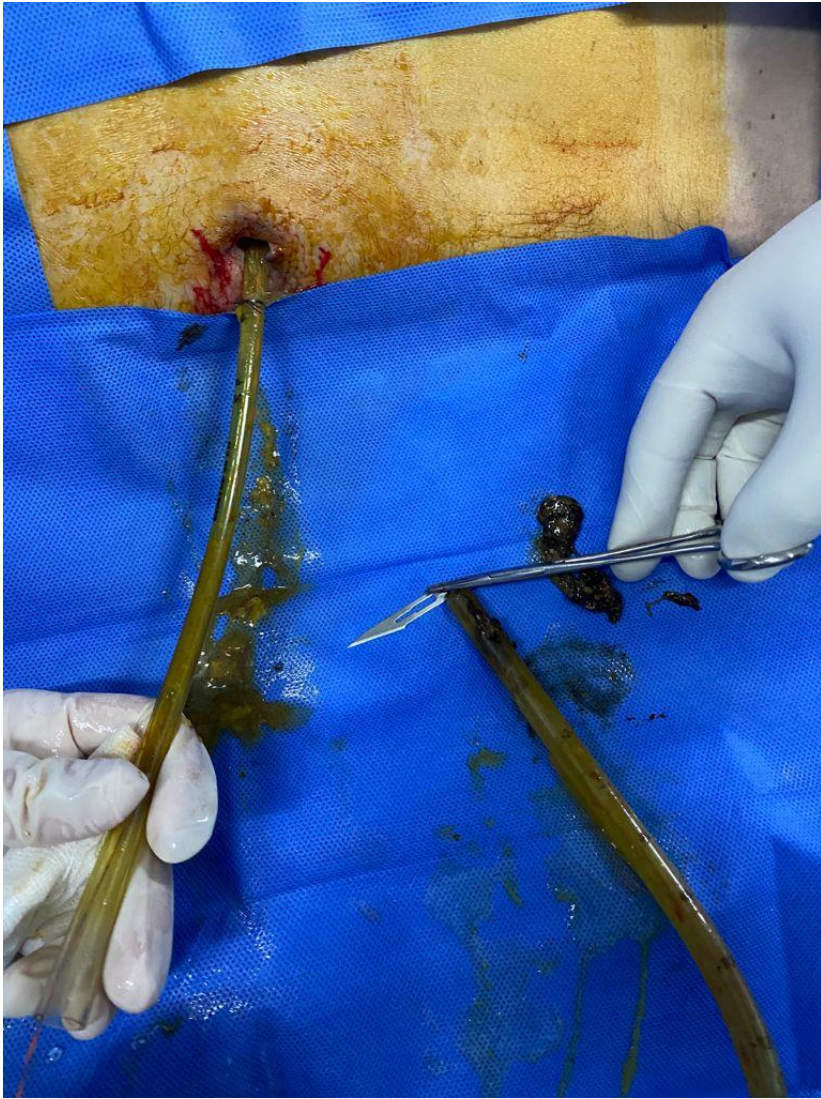
- N= 88 43 Step-up (35% solo drenaje) 45 Open

1ro: Mortalidad o morbilidad mayor	40% vs 69%
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- Muerte	19% vs 16 %
Otros: Hernia incisional	7% vs 24 %
Diabetes	16% vs 38%

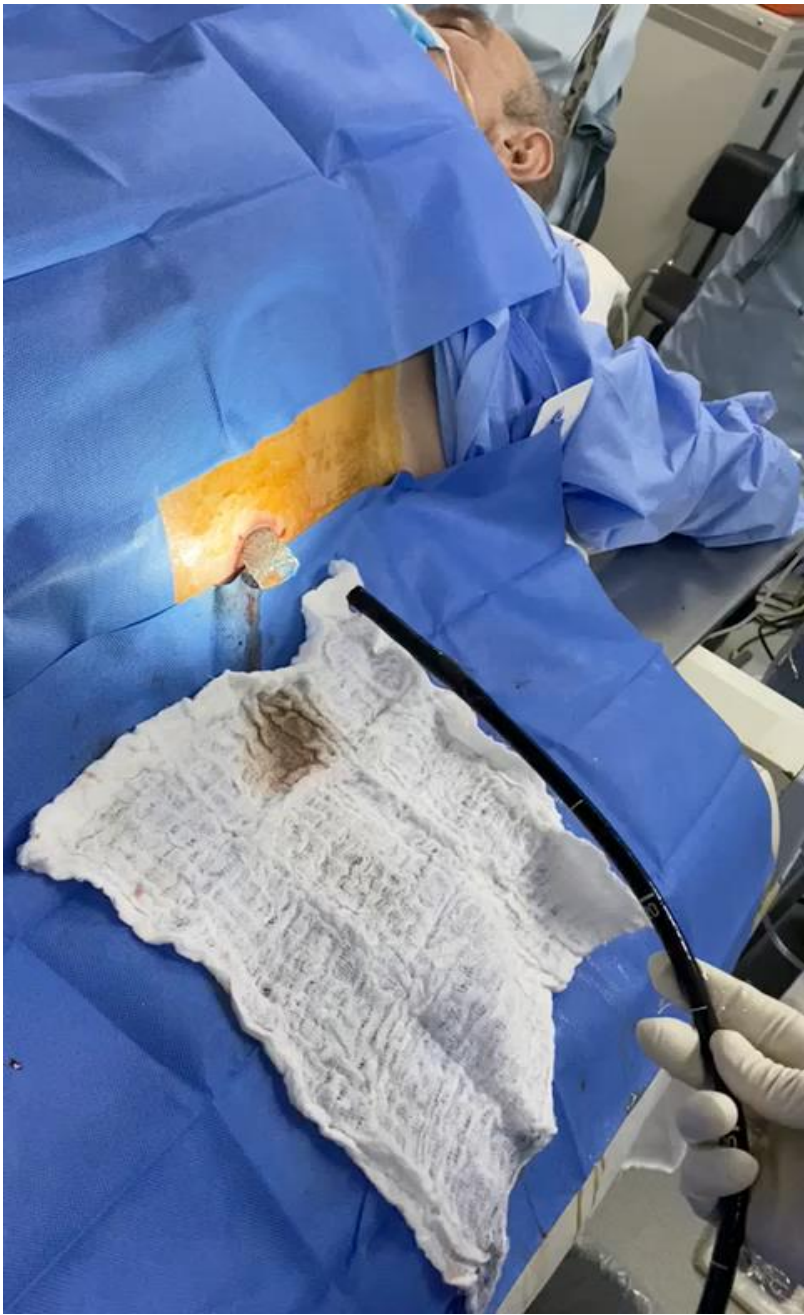
CONCLUSIÓN: El Step-up approach redujo el indice de complicaciones en los pacientes con necrosis pancreática infectada



29/04/2021







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Concepto «3D» de tratamiento

- **Demora:** primera etapa de cuidados intensivos esperando la formación del WOPN; generalmente 4 a 6 semanas
- **Drenaje:** segunda etapa de drenaje percutáneo o endoscópico
- **Debridamiento:** tercera etapa de necrosectomía mínimamente invasiva



Muchas gracias

