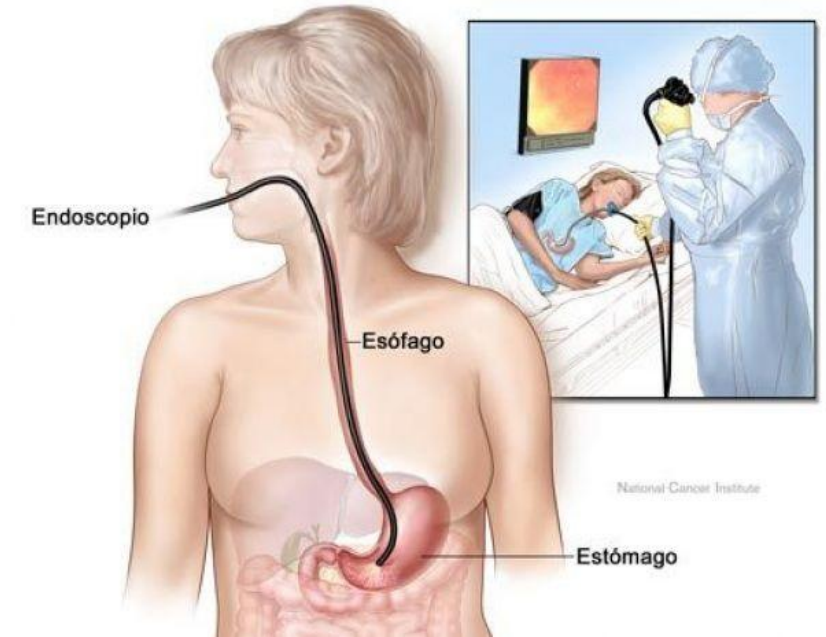


Calidad en Endoscopia digestiva superior

William Otero R MD, FAGA, FACP
Profesor Titular de Medicina
Director de Gastroenterología
Universidad Nacional de Colombia
Hospital Universitario Nacional de Colombia

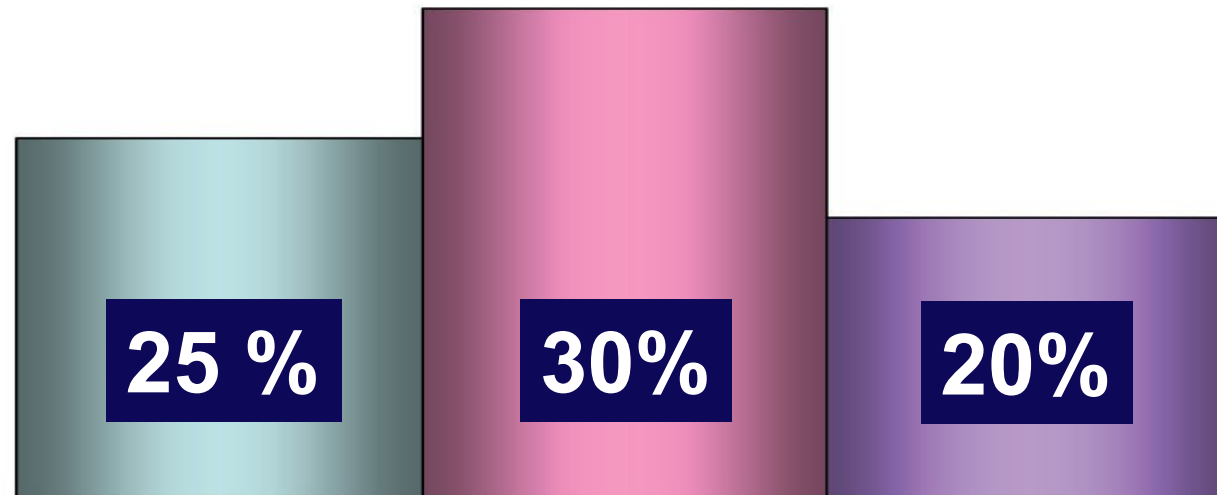


**Calidad en
endoscopia alta**

**No había llamado
La atención como
Colonoscopia**

Tasa de detección de adenomas

% pacientes > 50 años
Con adenomas identificados
Y documentados



ASGE 2015

Global

Hombres

Mujeres

40% ?

30% ?

ORIGINAL ARTICLE

Adenoma Detection Rate and Risk of Colorectal Cancer and Death

Douglas A. Corley, M.D., Ph.D., Christopher D. Jensen, Ph.D., Amy R. Marks, M.P.H.,
Wei K. Zhao, M.P.H., Jeffrey K. Lee, M.D., Chyke A. Doubeni, M.D., M.P.H.,
Ann G. Zauber, Ph.D., Jolanda de Boer, M.B., Bruce H. Fireman, Ph.D.,
Joanne E. Schottinger, M.D., Virginia P. Quinn, Ph.D., Nirupa R. Ghai, Ph.D.,
Theodore R. Levin, M.D., and Charles P. Quesenberry, Ph.D.

↓ **Incidencia CCR**

↓ **Mortalidad por CCR**

Endoscopia Digestiva Alta

A globe showing the continents of North and South America. A blue circle is drawn around the continent of South America. A blue horizontal banner with white text is superimposed over the center of the globe, passing through the blue circle.

“Pan diario de cada día”

Endoscopia Digestiva Alta

USA 6.1 millones de EVDA



Cifras preocupantes

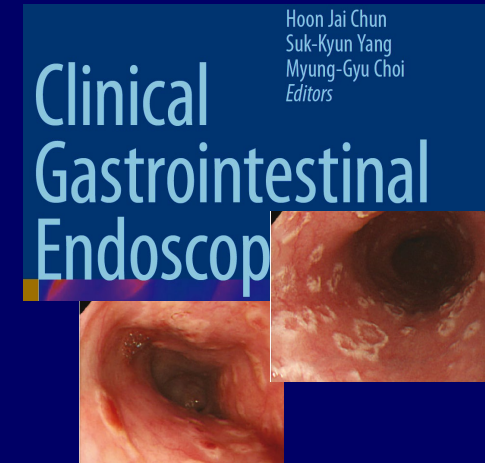
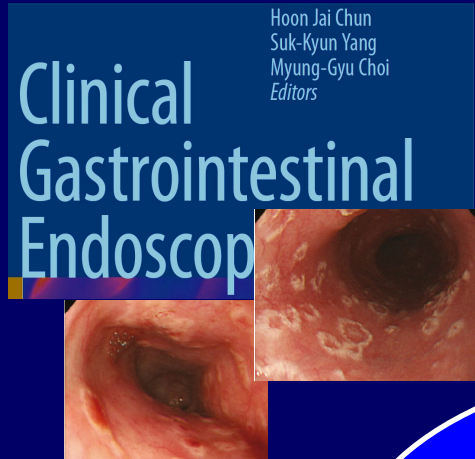


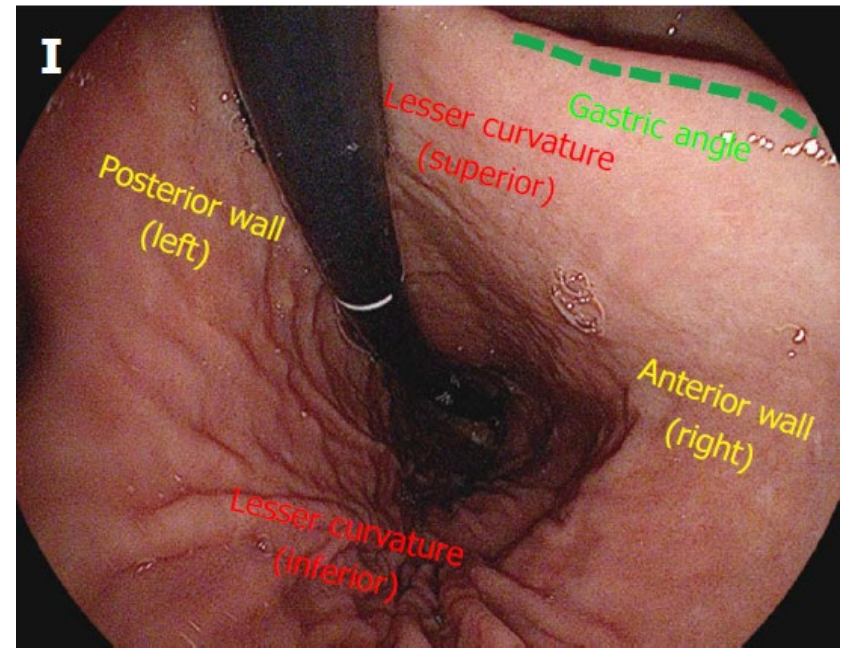
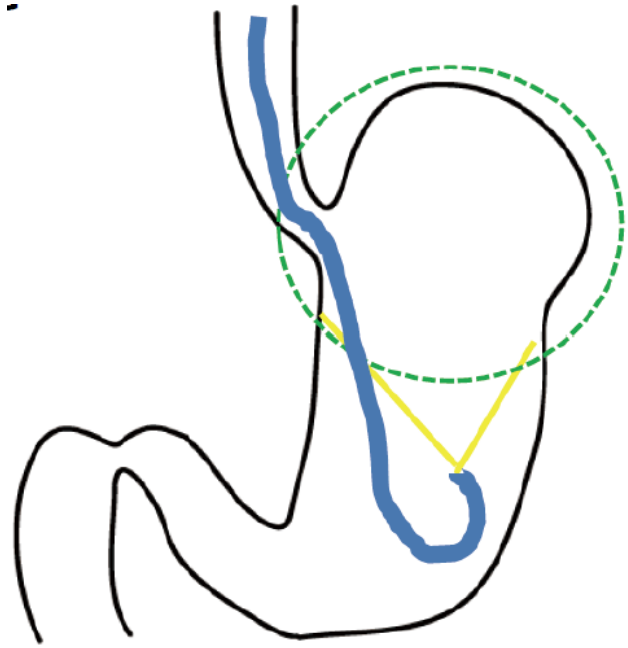
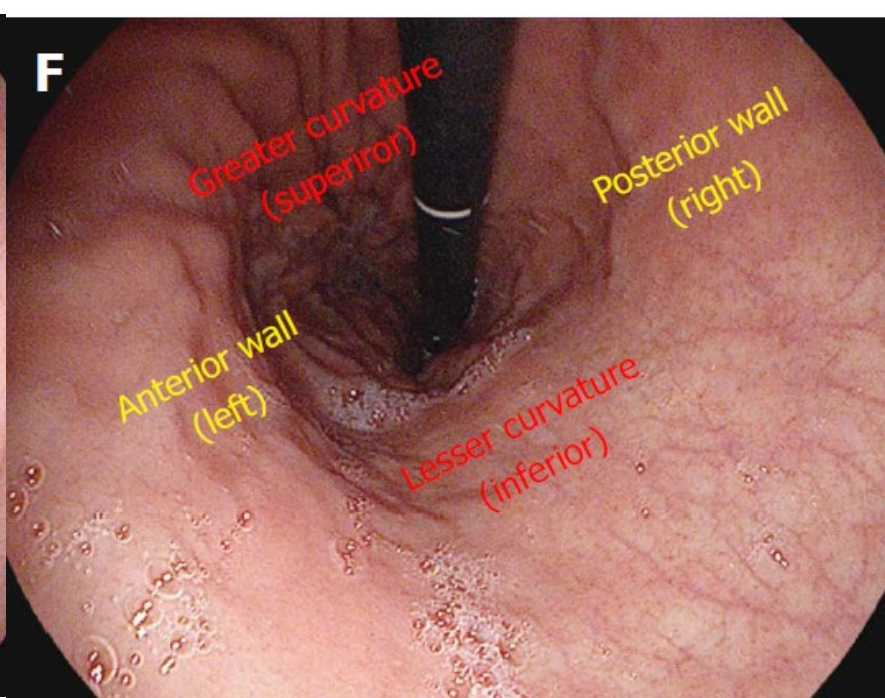
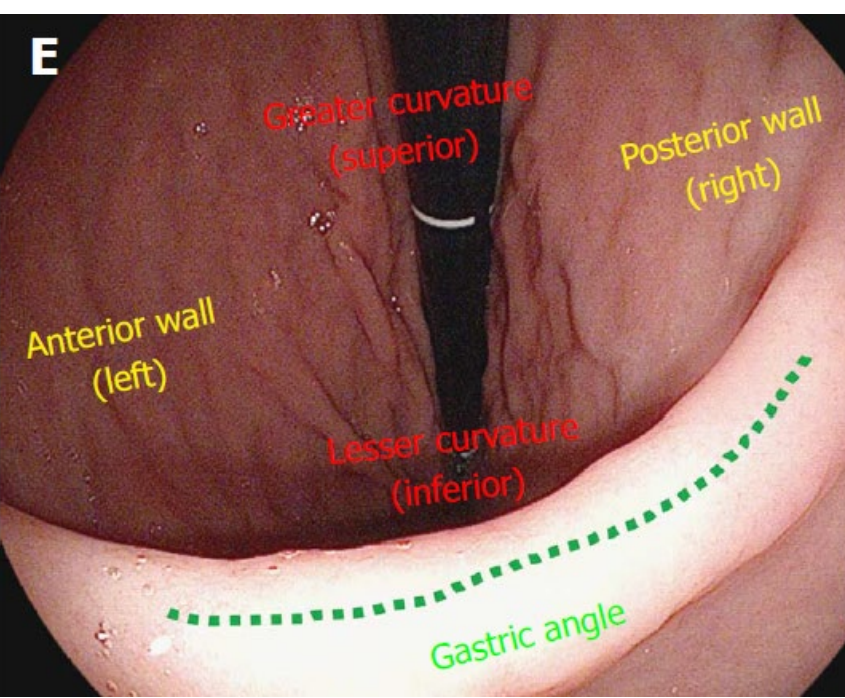
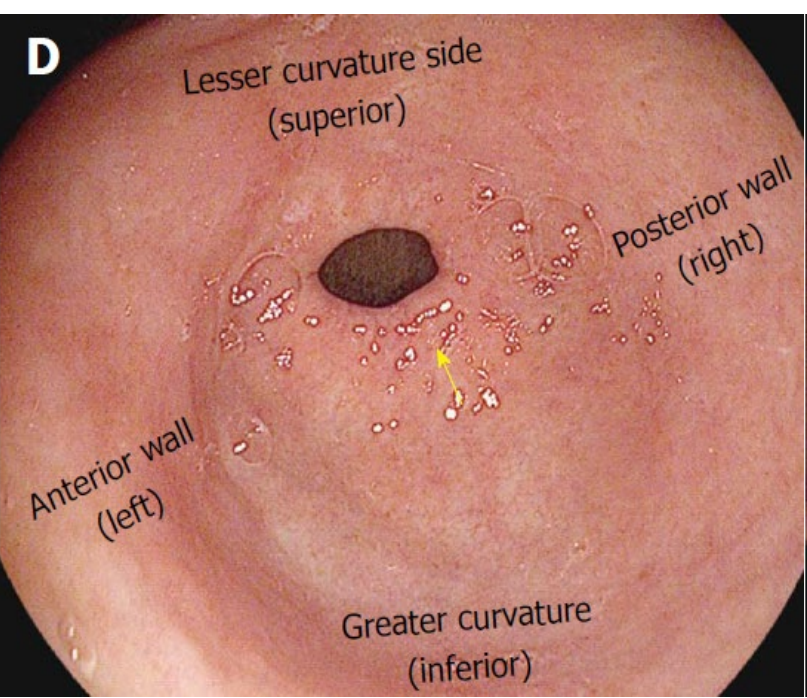
Tumores no identificados

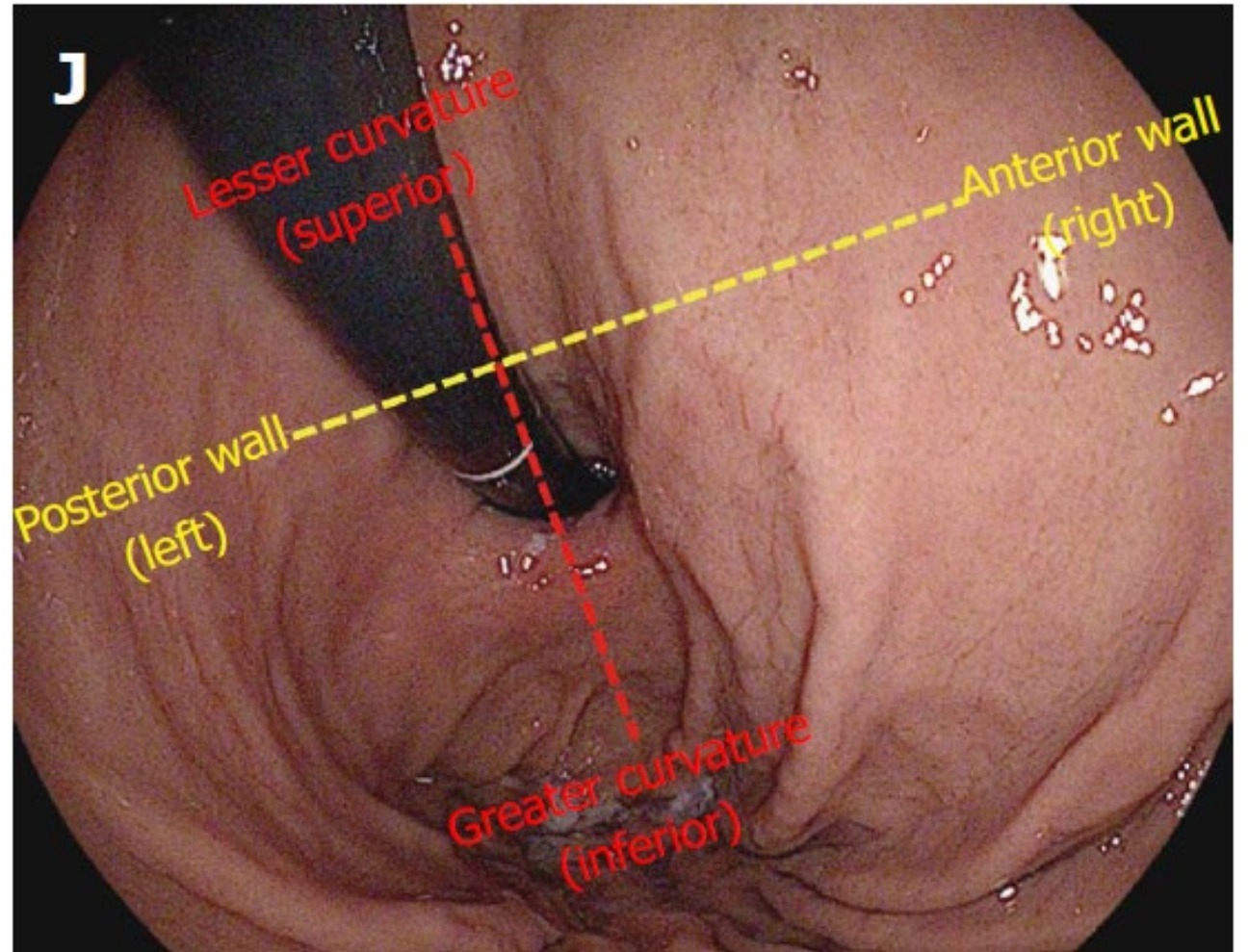
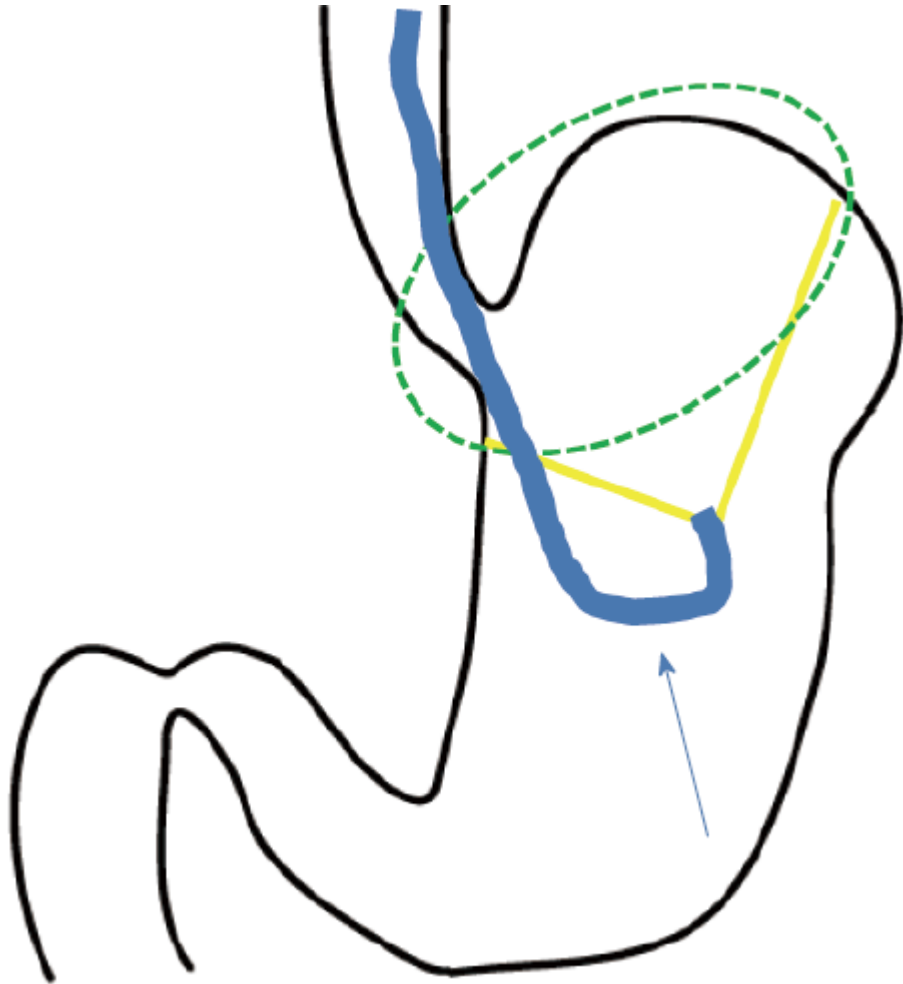


**11.3% Cánceres Digestivos altos 3 años antes
25% Càncer de esòfago 12 meses antes**

Endoscopia Digestiva Alta







Lee SH, World J Gastroenterol 2015; 21: 759-85

1999

TO ERR IS HUMAN

Building a Safer Health System

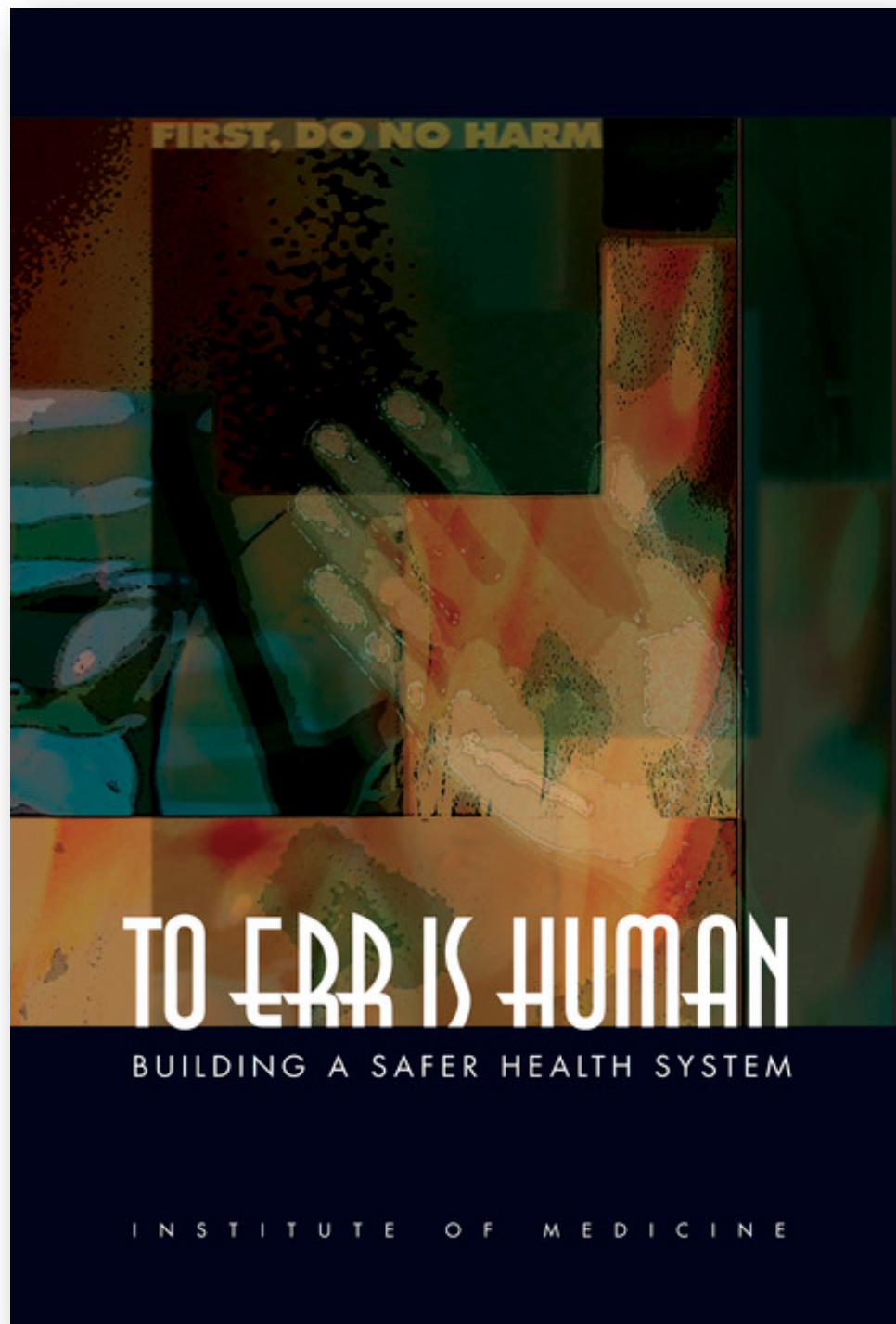
**Identificar y entender el error
se puede mejorar
Inteligente!**

Linda T. Kohn, Janet M. Corrigan, and
Molla S. Donaldson, *Editors*

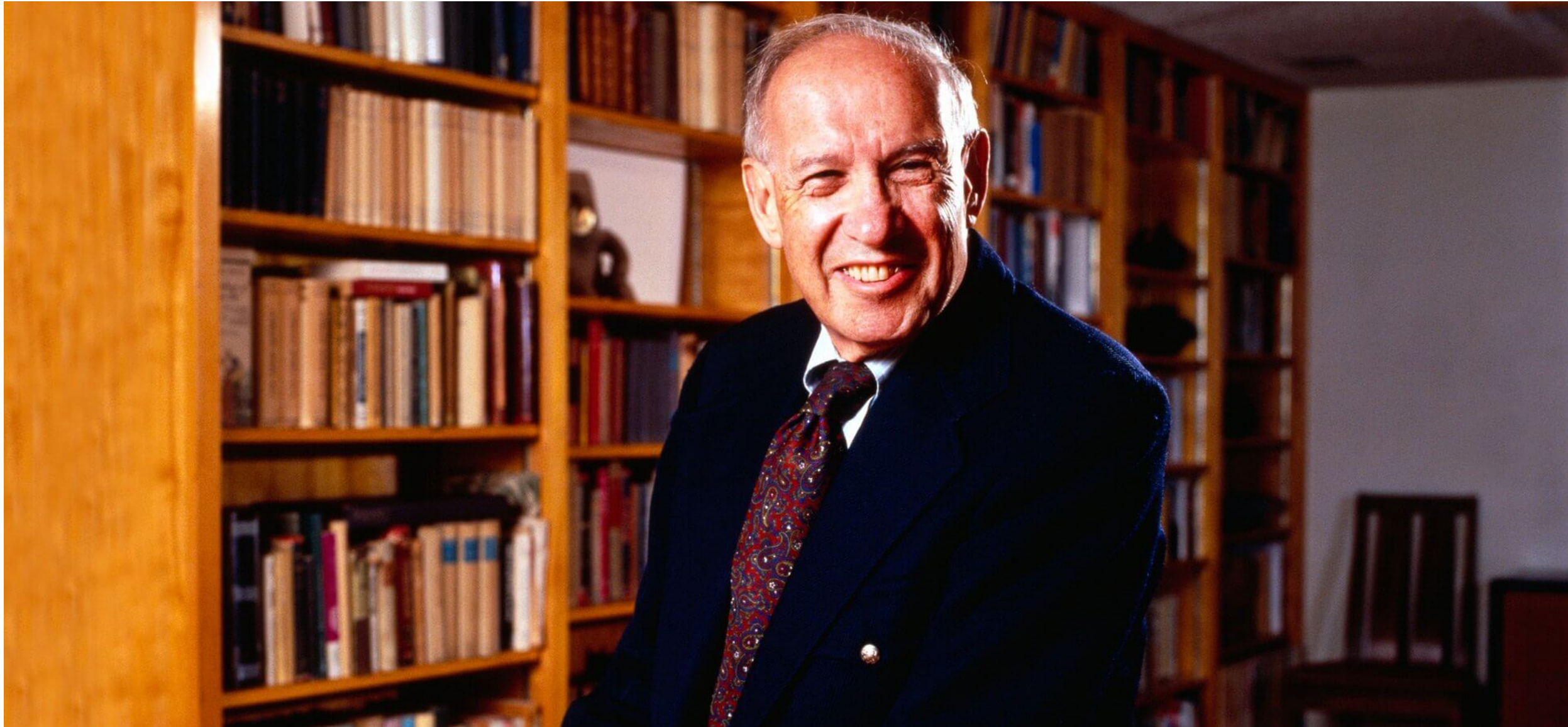
Committee on Quality of Health Care in America

INSTITUTE OF MEDICINE

NATIONAL ACADEMY PRESS
Washington, D.C.



Peter Drucker “El padre de la administración” (Viena 1909-2005)



“Si no lo puedes medir, no lo puedes mejorar”

Colombia ?

No hay datos



**En la práctica mucha variación en
Los parámetros de calidad EVDA**

Quality indicators in diagnostic upper gastrointestinal endoscopy

Wladyslaw Januszewicz and Michal F. Kaminski 

Ther Adv Gastroenterol

2020, Vol. 13: 1–19

DOI: 10.1177/
1756284820916693

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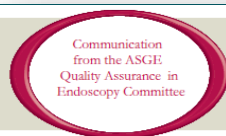


OPEN ACCESS

An Asian consensus on standards of diagnostic upper endoscopy for neoplasia

Philip Wai Yan Chiu,¹ Noriya Uedo,² Rajvinder Singh,³ Takuji Gotoda,⁴ Enders Kwok Wai Ng,¹ Kenshi Yao,⁵ Tiing Leong Ang,⁶ Shiao Hooi Ho,⁷ Daisuke Kikuchi,⁸ Fang Yao,⁹ Rapat Pittayanon,¹⁰ Kenichi Goda,¹¹ James Y W Lau,¹ Hisao Tajiri,¹² Haruhiro Inoue¹³

Chiu PWY, et al. Gut 2019;68:186–197



QUALITY INDICATORS FOR
GI ENDOSCOPIC PROCEDURES



Quality indicators for EGD

GIE 2015;81:17–30

Review Article



UNITED EUROPEAN
GASTROENTEROLOGY
ueg journal

Performance measures for upper gastrointestinal endoscopy: A European Society of Gastrointestinal Endoscopy quality improvement initiative

Raf Bisschops¹, Miguel Areia^{2,3}, Emmanuel Coron⁴, Daniela Dobru⁵, Bernd Kaskas⁶, Roman Kuvaev⁷, Oliver Pech⁸, Krish Ragunath⁹, Bas Weusten¹⁰, Pietro Familiari¹¹, Dirk Domagk¹², Roland Valori¹³, Michal F Kaminski^{14,15}, Cristiano Spada¹¹, Michael Bretthauer^{14,16}, Cathy Bennett¹⁷, Carlo Senore¹⁸, Mário Dinis-Ribeiro^{3,19} and Matthew D Rutter^{20,21}

United European Gastroenterology Journal
2016, Vol. 4(5) 629–656
This article is published simultaneously in
the journals Endoscopy and the United
European Gastroenterology Journal.
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Gastroenterology
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DOI: 10.1177/2050640616664843
ueg.sagepub.com



Developing Quality Metrics For Upper Endoscopy

Intense interest in health care quality has been raised worldwide after the Institute of Medicine published a book entitled *To Err Is Human*, which brought to light the

Sharma P, Gastroenterology 2020;158:9–13



OPEN ACCESS

Quality standards in upper gastrointestinal endoscopy: a position statement of the British Society of Gastroenterology (BSG) and Association of Upper Gastrointestinal Surgeons of Great Britain and Ireland (AUGIS)

Sabina Beg,¹ Krish Ragunath,¹ Andrew Wyman,² Matthew Banks,³ Nigel Trudgill,⁴ Mark D Pritchard,⁵ Stuart Riley,⁶ John Anderson,⁷ Helen Griffiths,⁸ Pradeep Bhandari,⁹ Phillip Kaye,¹⁰ Andrew Veitch¹¹

Beg S, et al. Gut 2017;66:1886–99

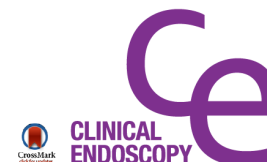
REVIEW

Clin Endosc 2016;49:312–317
<http://dx.doi.org/10.5946/ce.2016.084>
Print ISSN 2234-2400 • On-line ISSN 2234-2443

Open Access

How to Improve the Quality of Screening Endoscopy in Korea: National Endoscopy Quality Improvement Program

Yu Kyung Cho





QUALITY INDICATORS FOR GI ENDOSCOPIC PROCEDURES



Quality indicators for EGD

22 Ítem

45 posibles indicadores

Gastrointest Endosc 2015;81:15-30

Developing Quality Metrics For Upper Endoscopy

Sharma P, Gastroenterology 2020;158:9–13

Indicadores de calidad en EVDA

Pre-procedimiento

Intra-procedimiento

Post-procedimiento

ASGE, ESGE

Endoscopia digestiva alta

Evaluar siempre

**Todas las marcas
Anatómicas relevantes**

**Todas las Estaciones
alto riesgo**

Beg S, Gut 2017;66:1886-99

Foto documentación

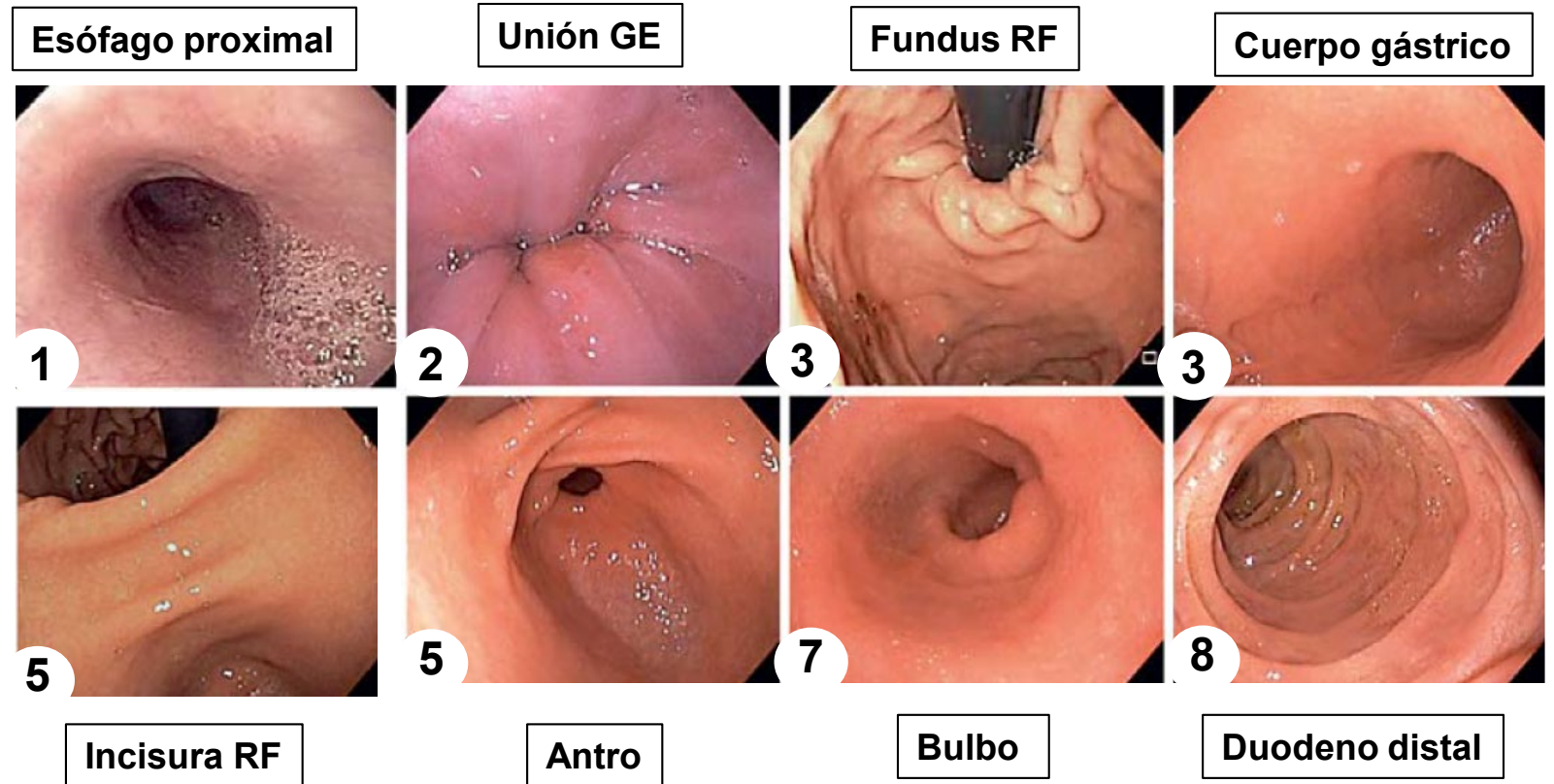
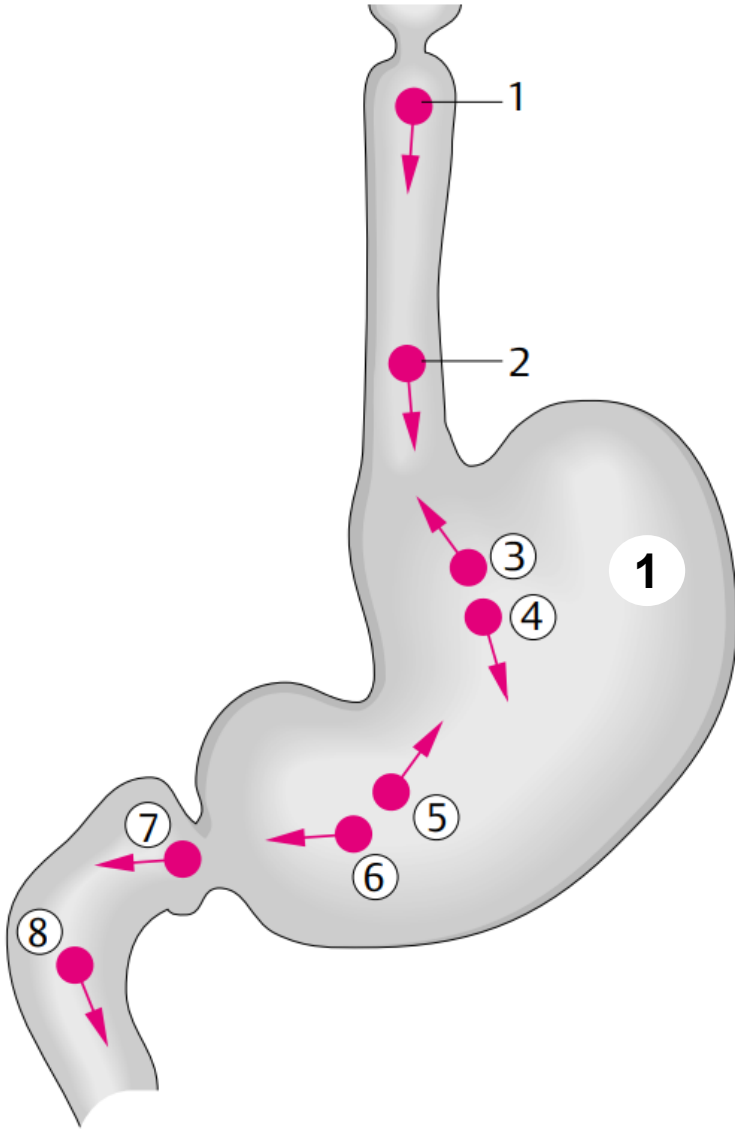
No hay evidencias



**Facilita detallar áreas interés
Defensas legales
La limpieza mejor visibilidad**

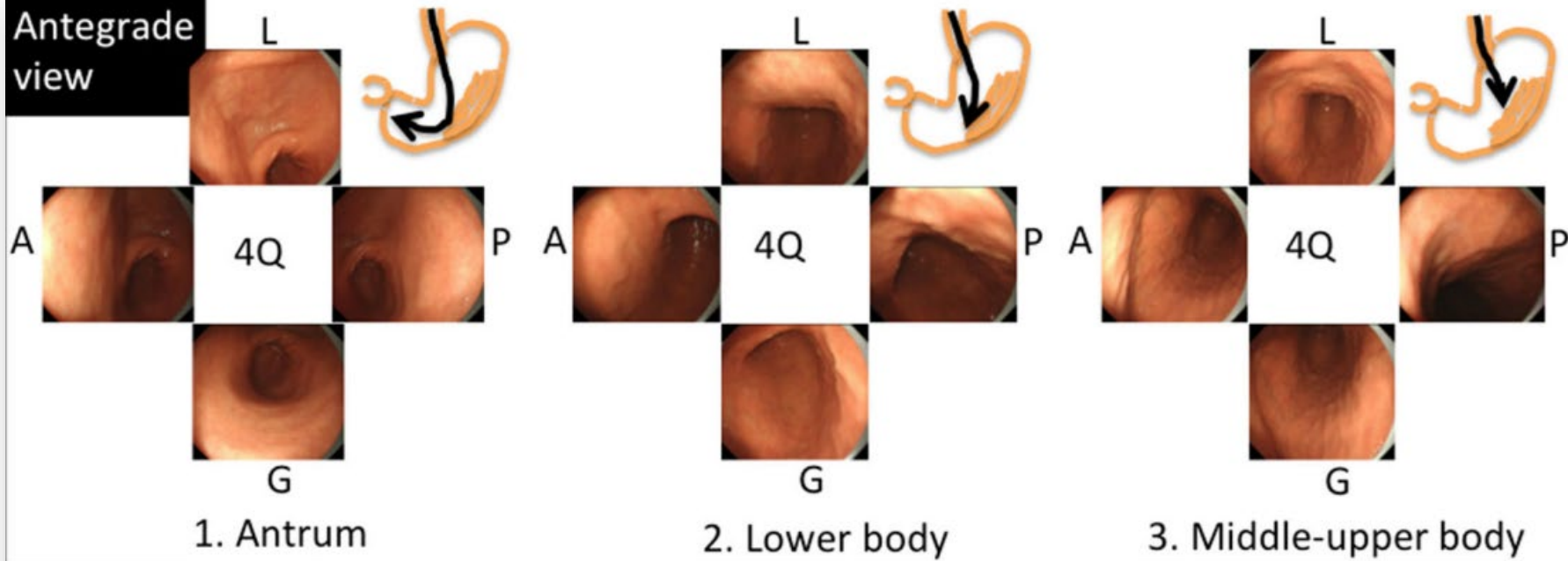
**Bisschops R, Endoscopy 2016;48:843-64
Beg S, Gut 2017;66:1886-99**

Estaciones recomendadas para fotodocumentación

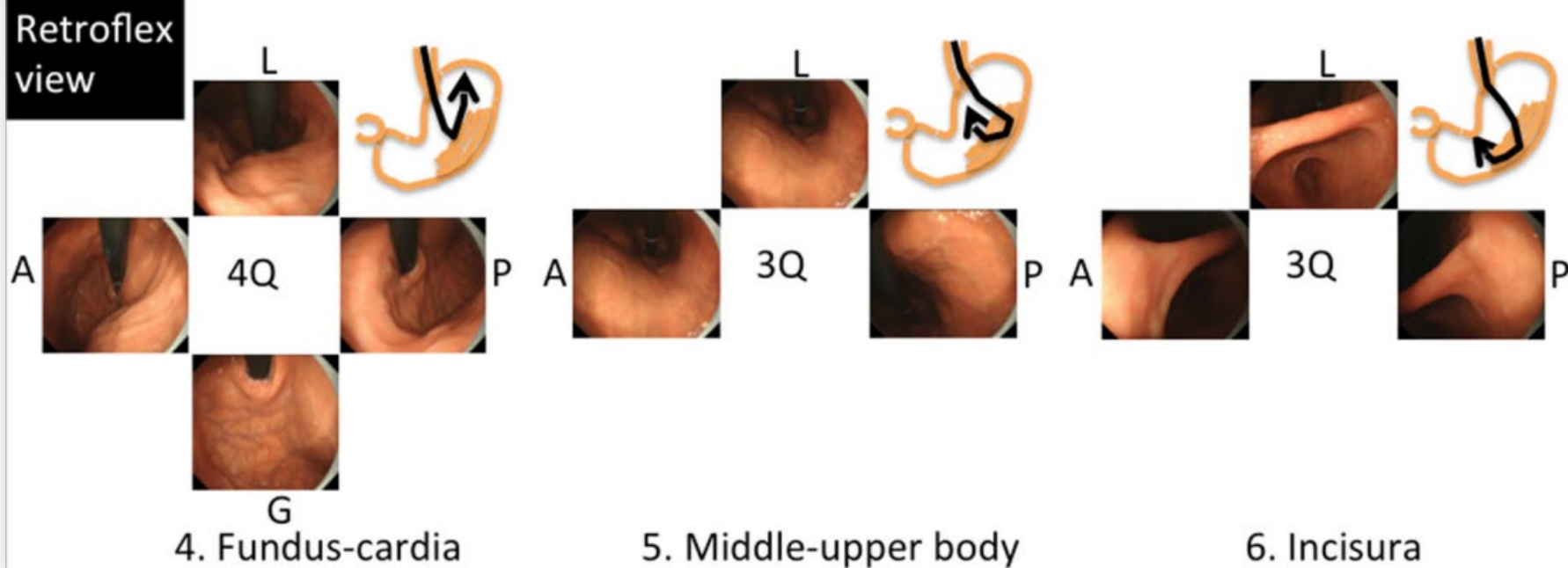


Rey JF, (ESGE) Endoscopy 2001;33:901-3

Antegrade view

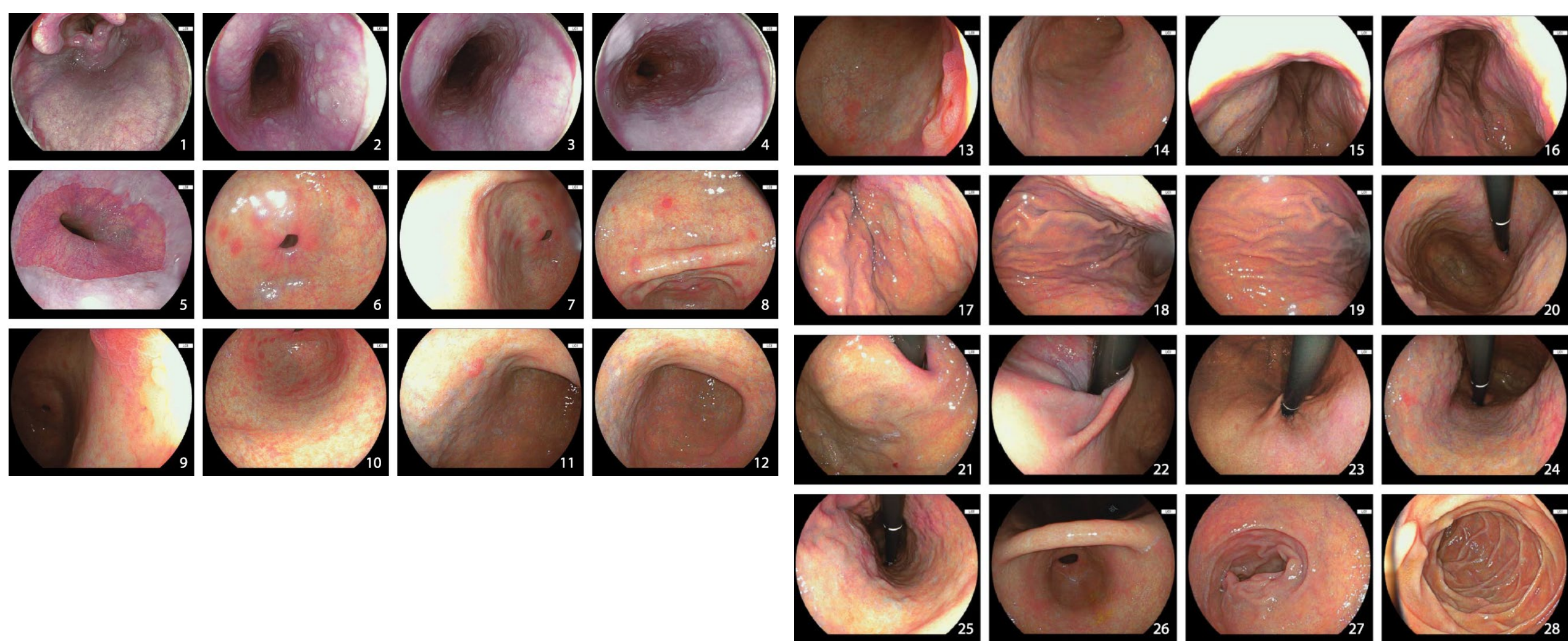


Retroflex view



22
Estaciones

Endoscopia sistemática alfa numérica 28 estaciones



Emura F, Am J Gastroenterol 2019;114:841-45.

Calidad de la visualización



Debe reportarse

No hay escalas

Beg S, Gut 2017;66:1886-99

Bisschops R, Endoscopy 2016;48: 843-64

Boston

0

No se ve nada



1

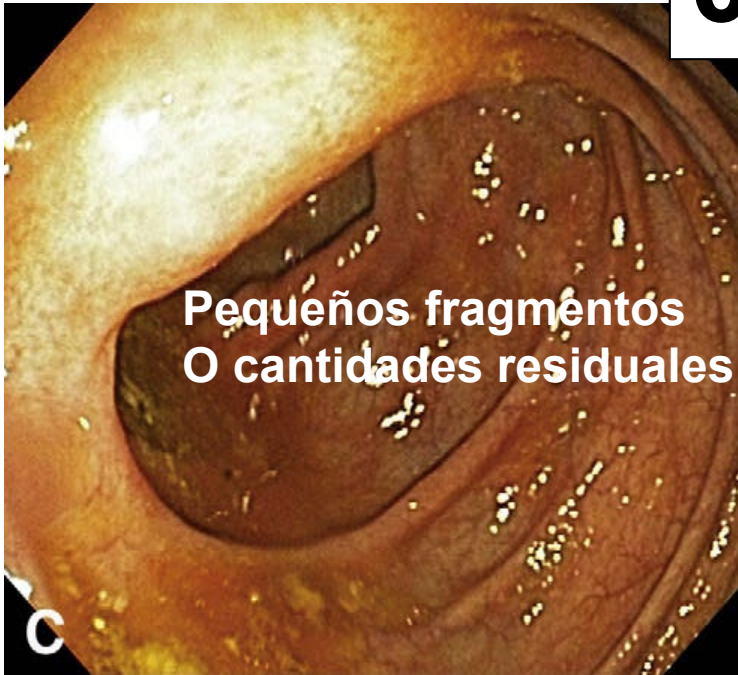
Unas áreas se ven.
Otras no



0-9

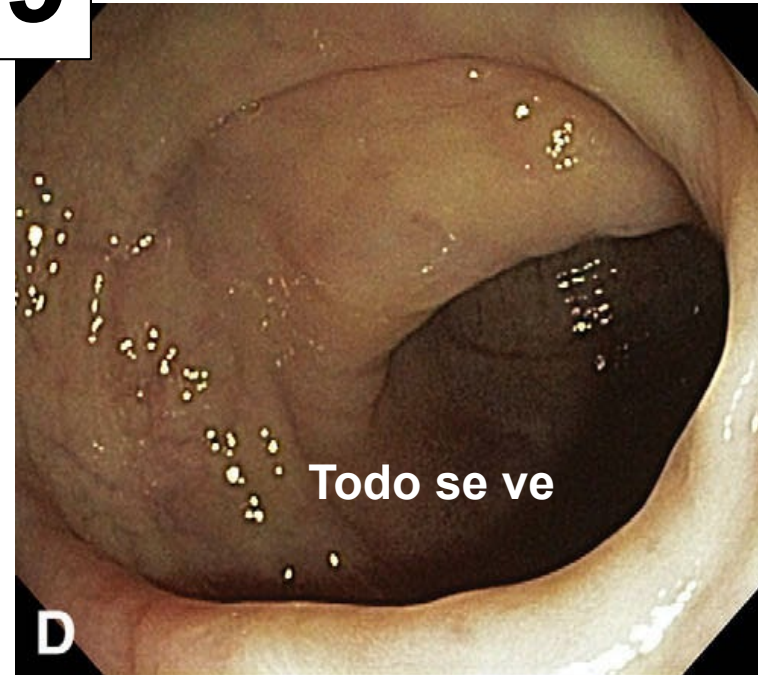
2

Pequeños fragmentos
O cantidades residuales

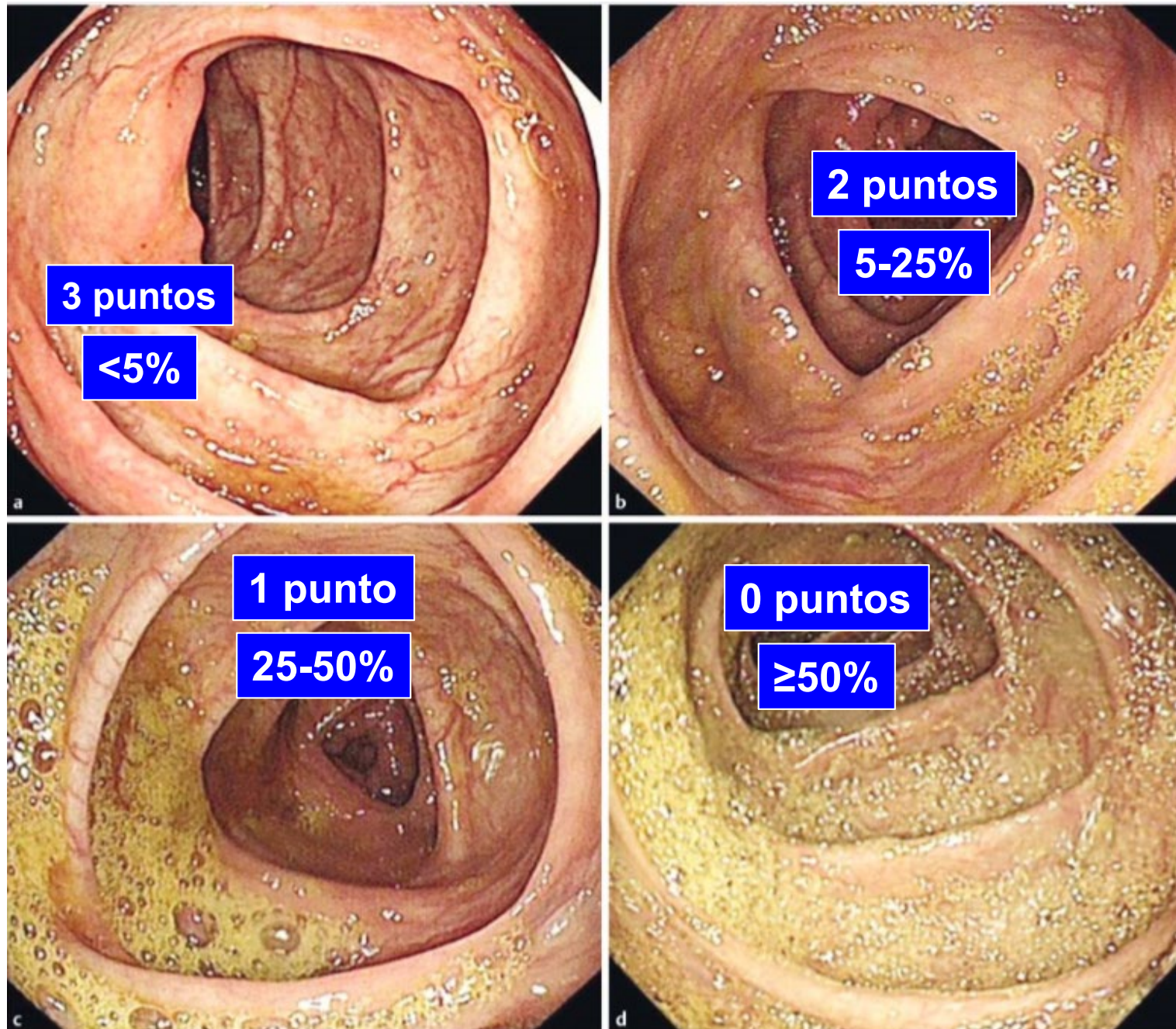


3

Todo se ve



Puntaje de Burbujas



Adecuada visualización

Insuflación

Aspiración

Agentes “limpieza” 10 -30 min antes

Mucolíticos: *N acetil cisteína, pronasa*

Anti espumante: *simeticona*

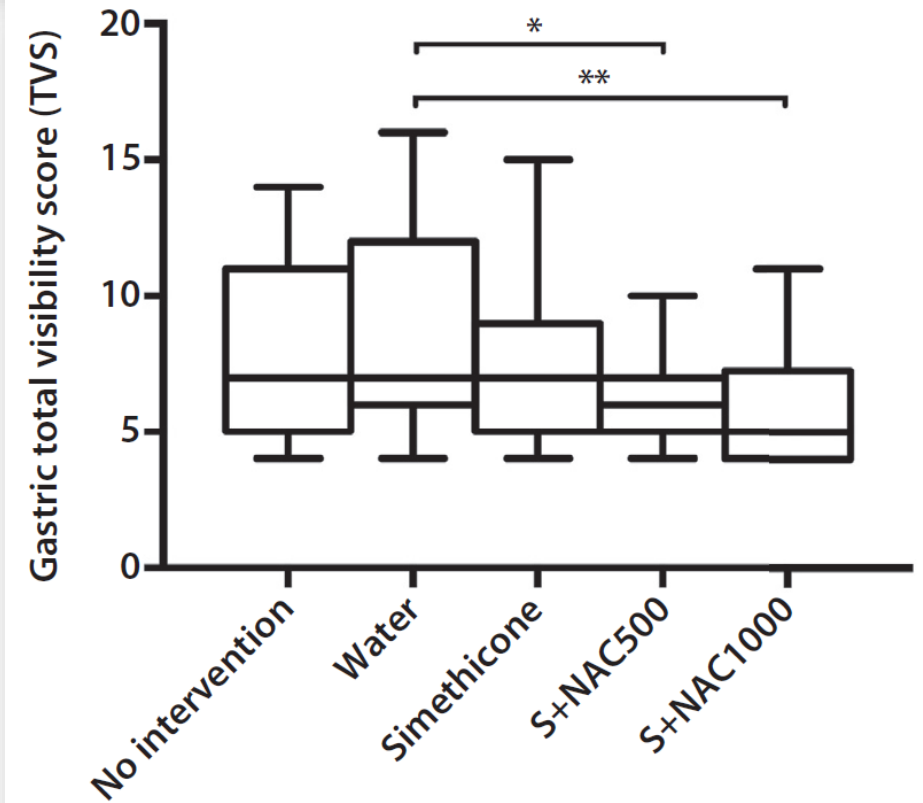
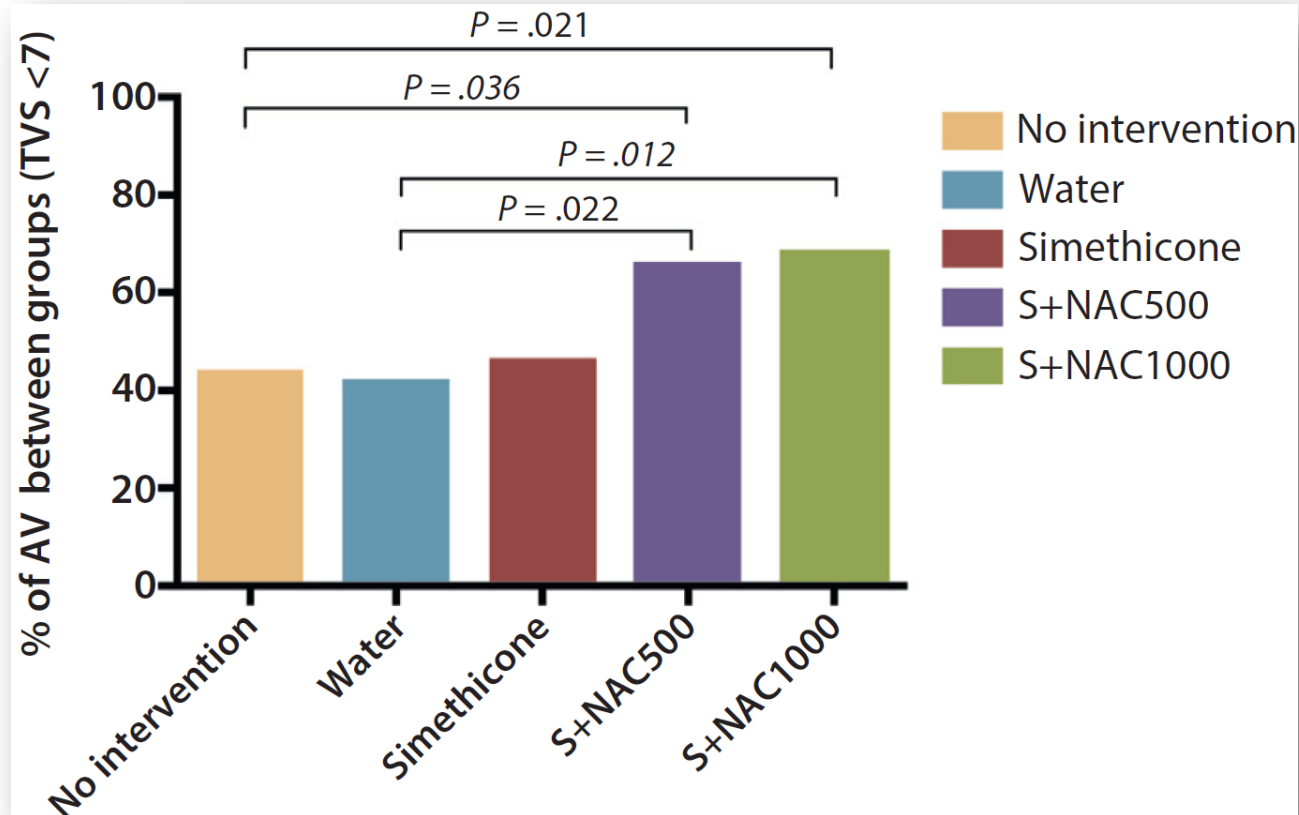
Mejor visibilidad

Beg S, Gut 2017;66:1886-99

Woo JG, J Clin Gastroenterol 2007;2013;47:389-92

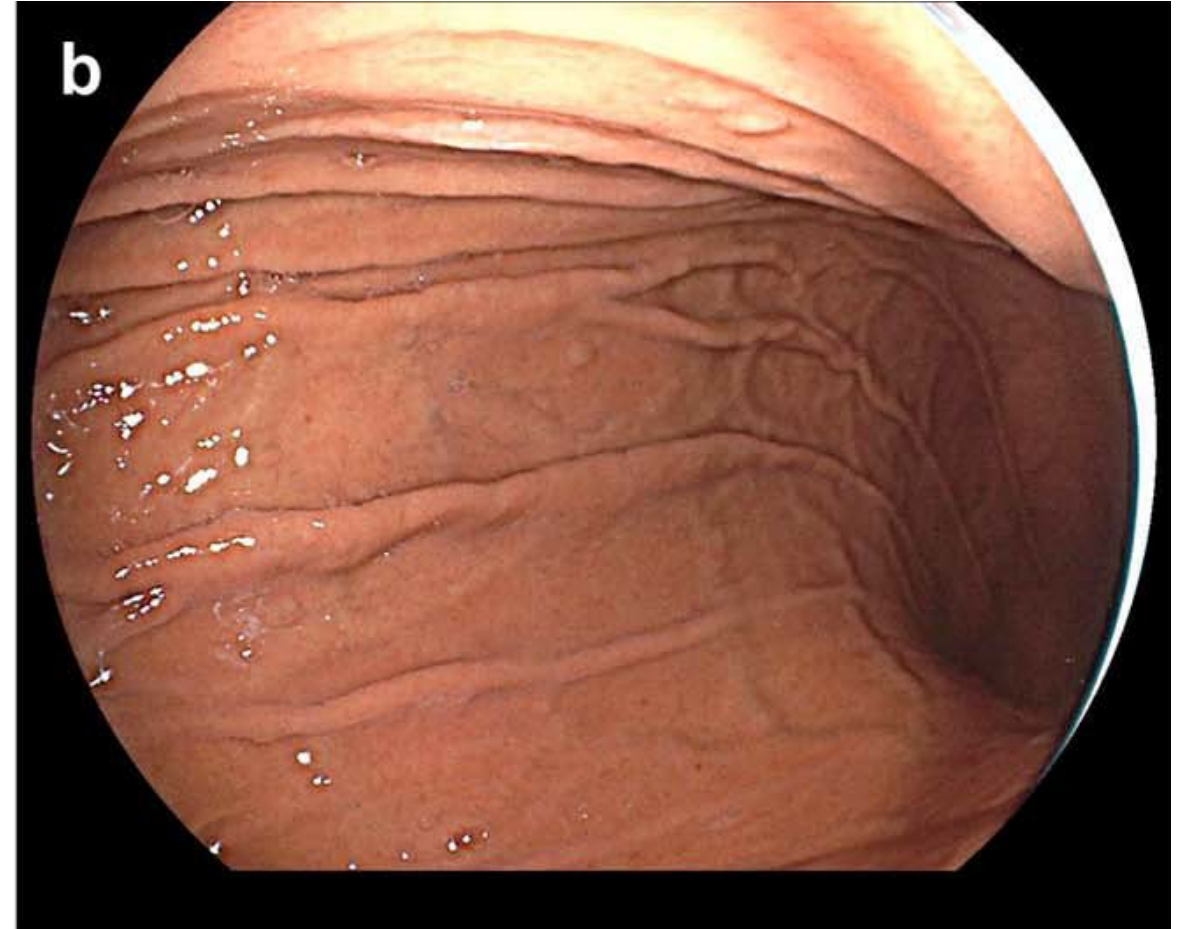
Use of N-acetylcysteine plus simethicone to improve mucosal visibility during upper GI endoscopy: a double-blind, randomized controlled trial 📺

Hugo Monrroy, MD, ^{*,1,2,3} Jose Ignacio Vargas, MD, ^{*,1,2,3} Esteban Glasinovic, MD, ⁴ Roberto Candia, MD, Emilio Azúa, MD, ² Camila Gálvez, MD, ² Camila Rojas, MD, ² Natalia Cabrera, ² Josefa Vidaurre, ² Natalia Álvarez, ³ Jessica González, ³ Alberto Espino, MD, ^{1,2,3} Robinson González, MD, ^{1,2,3} Adolfo Parra-Blanco, MD, PhD ^{1,3,5,6}



One-way ANOVA, * $P < .05$, ** $P < .01$, *** $P < .001$, ns = not significant.

Visualización sin y con adecuada preparación, N acetilcisteína



Emura F, Am J Gastroenterol 2019;114:841-45.

Duración

Examination time as a quality indicator of screening upper gastrointestinal endoscopy for asymptomatic examinees

Takuji Kawamura,¹ Hironori Wada,¹ Naokuni Sakiyama,¹ Yuki Ueda,¹ Atsushi Shirakawa,¹ Yusuke Okada,¹ Kasumi Sanada,¹ Kojiro Nakase,¹ Koichiro Mandai,¹ Azumi Suzuki,¹ Mai Kamaguchi,² Atsuhiko Morita,¹ Kenichi Nishioji,² Kiyohito Tanaka,¹ Naomi Mochizuki,² Koji Uno,¹ Isao Yokota,³ Masao Kobayashi² and Kenjiro Yasuda¹



Rápidos	4.4 ± 1 minuto
Moderados	6.1 ± 1.4 minutos
Lento	7.8 ± 1.9 minutos

Detección Lesión neoplásica
OR 1.90 (IC95%1.06-3.40)

Longer Examination Time Improves Detection of Gastric Cancer During Diagnostic Upper Gastrointestinal Endoscopy



Jun Liang Teh,^{*} Jin Rong Tan,[‡] Linus Jian Fa Lau,[‡] Nakul Saxena,^{§,||} Agus Salim,[¶] Amy Tay,^{*} Asim Shabbir,^{*} Sydney Chung,^{*,‡} Mikael Hartman,^{*,||,#} and Jimmy Bok-Yan So^{*,‡}

224 pacientes

Punto de corte 7 minutos

Endoscopistas

Rápidos 5.5 ± 2.1 min

Lentos 8.6 ± 4.2 min

Lesiones alto riesgo OR 2.5 (IC95%1.52-4.12)

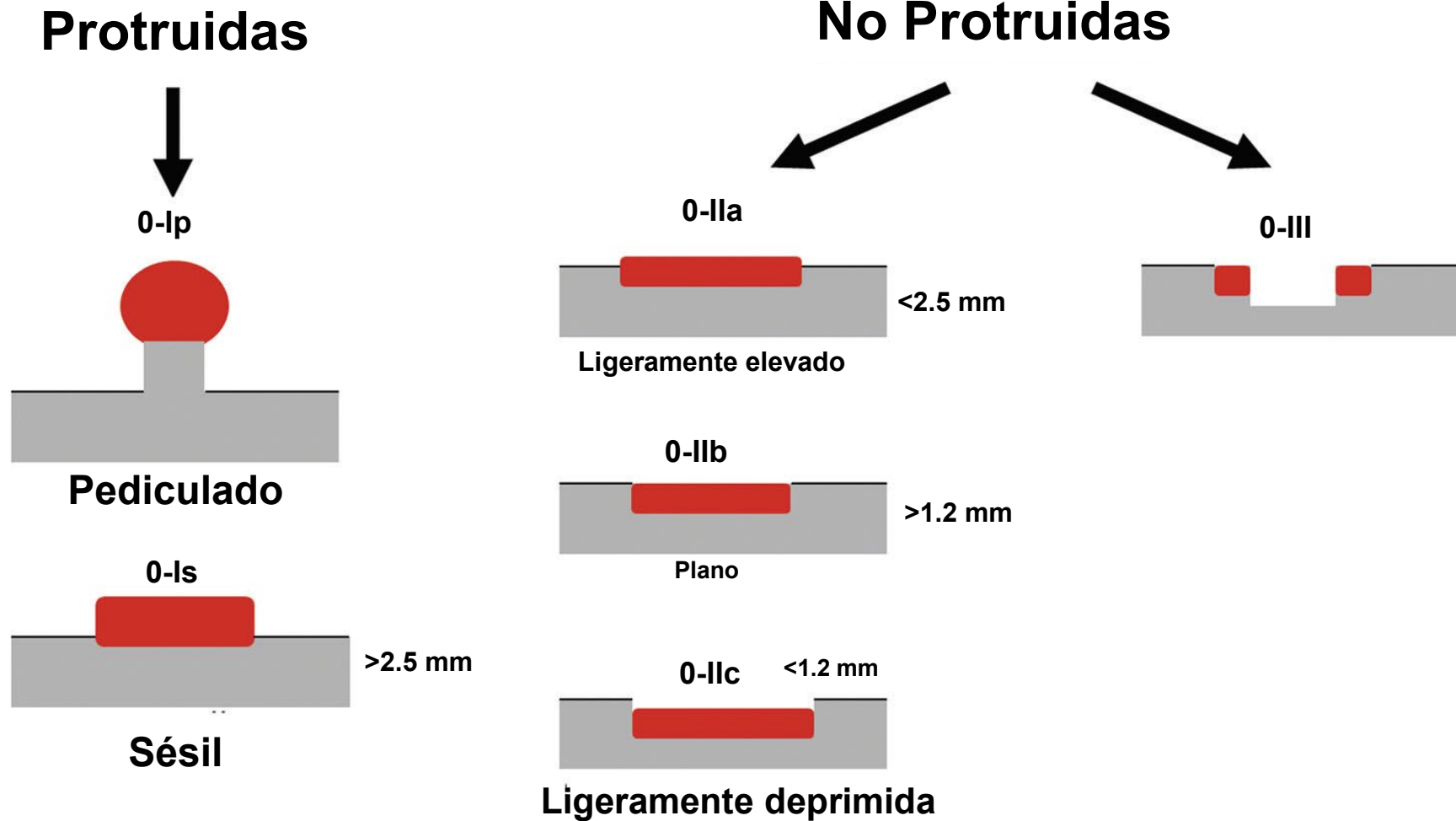
Cáncer OR 3.42 (IC95% 1,25-10,38)

ESGE: Al menos 7 minutos por EVDA

Independiente de experticia!

Clasificaciones estandarizadas

Alteraciones morfológicas



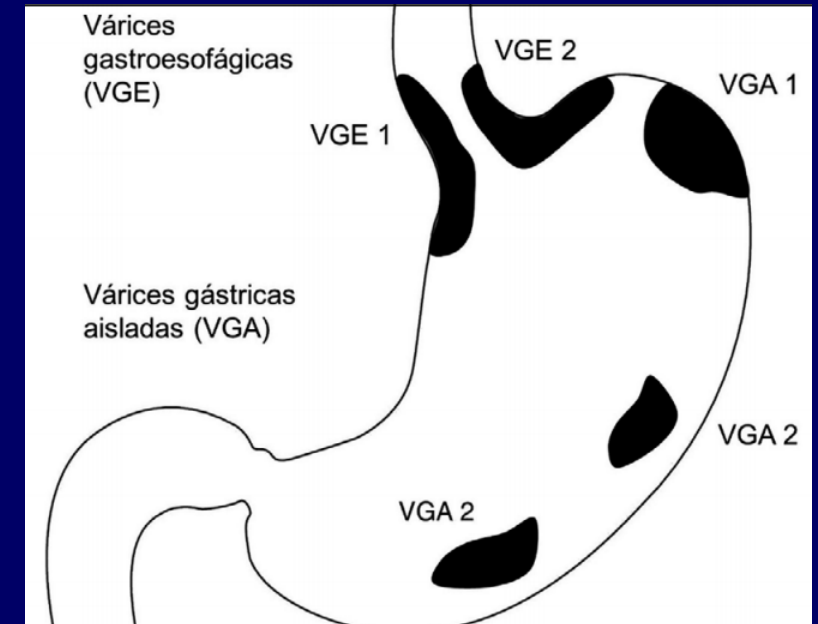
Várices, describirlas, según nomenclatura

Esofágicas



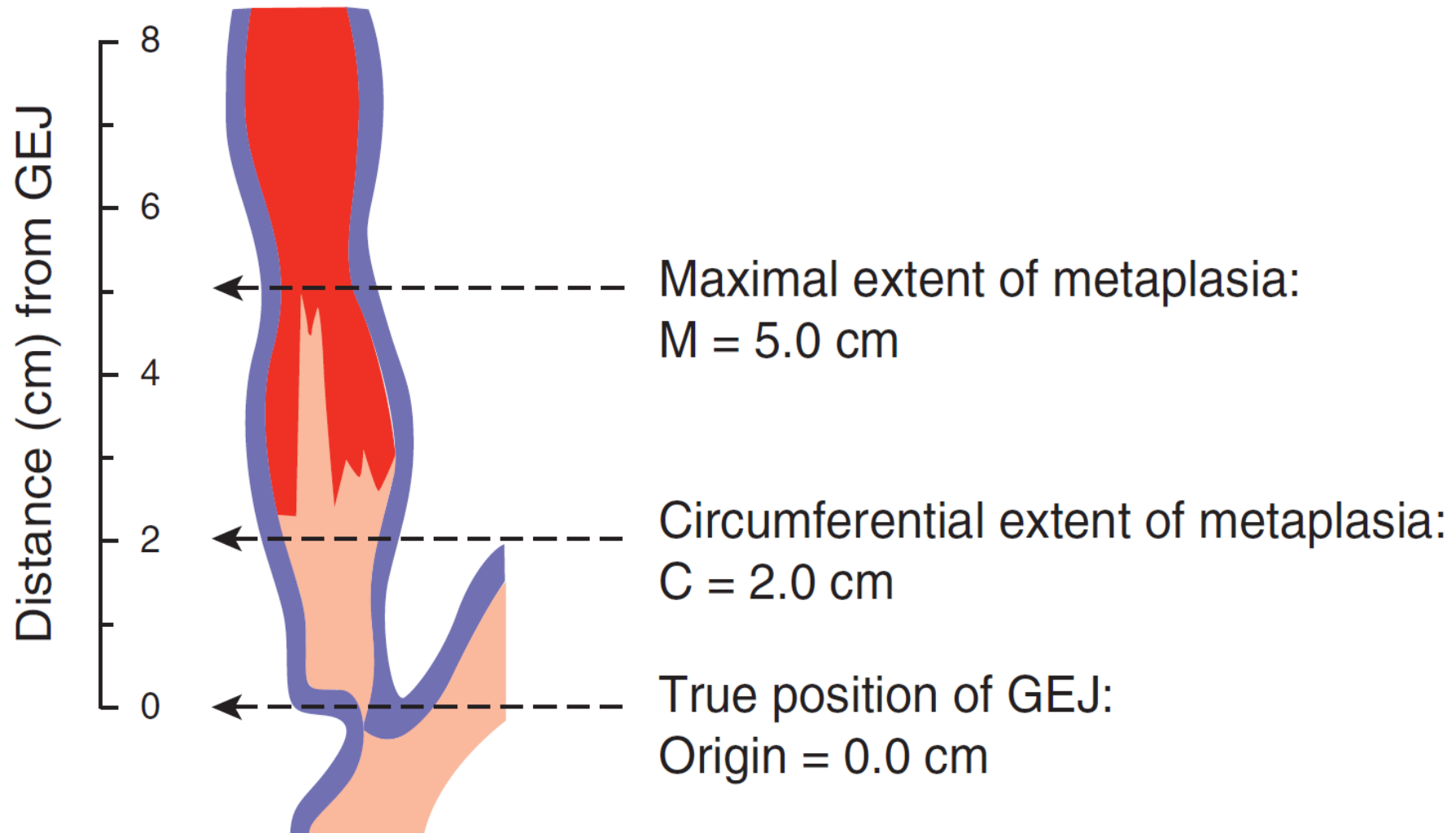
$\pm 5\text{mm}$ o $> 5\text{ mm}$

Gástricas



Esófago de Barrett

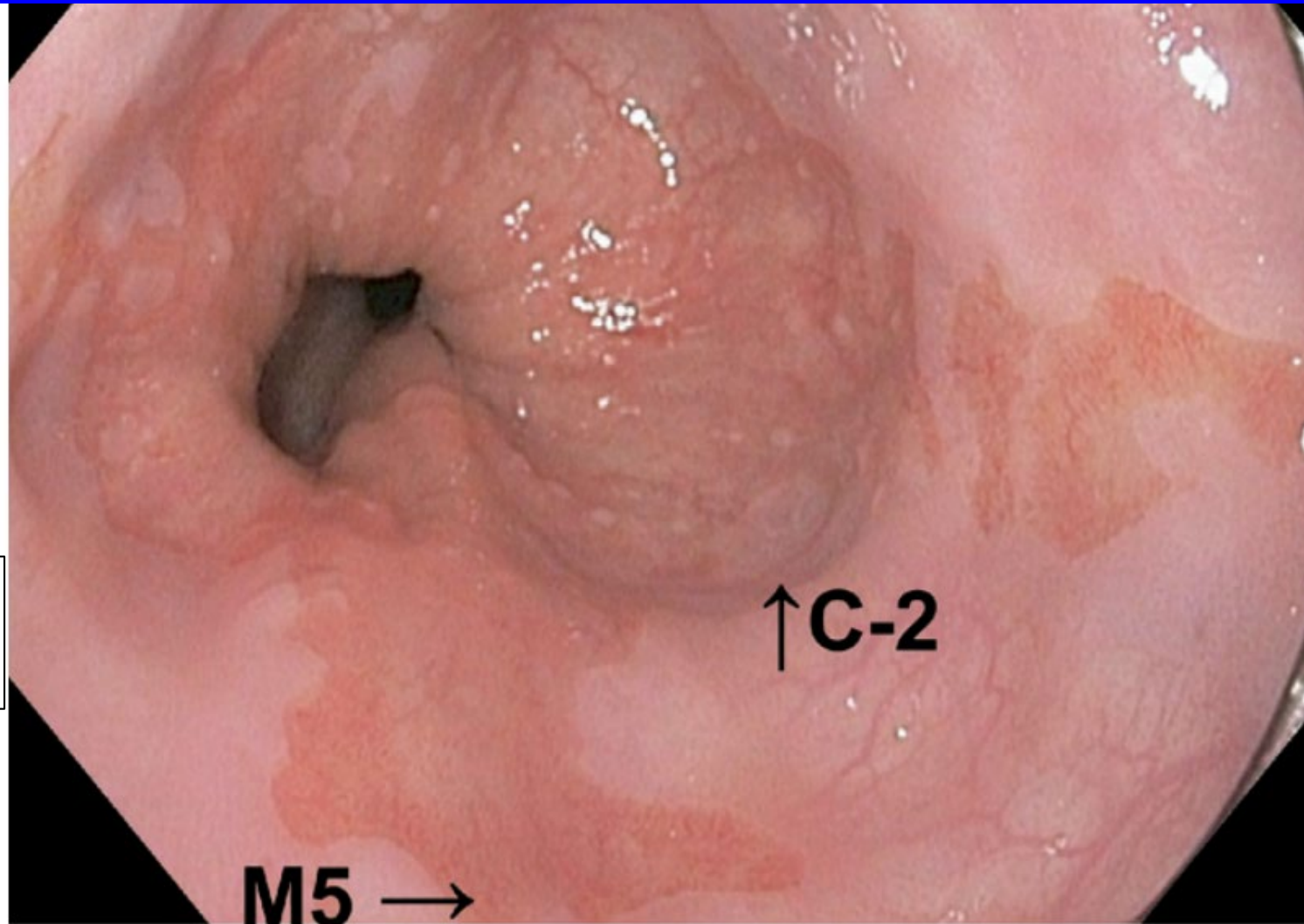
Esófago de Barrett, clasificación de Praga



**Mejor herramienta disponible para evaluar
la longitud endoscópica del esófago Barrett
Bennett C, Gastroenterology 2012; 143: 336**

**Clasificación
De Praga**

**Durante
Retirada**



**Todas las guías
y Expertos**

Sharma P, Gastroenterology 2006;131:1392-9

Longer inspection time is associated with increased detection of high-grade dysplasia and esophageal adenocarcinoma in Barrett's esophagus



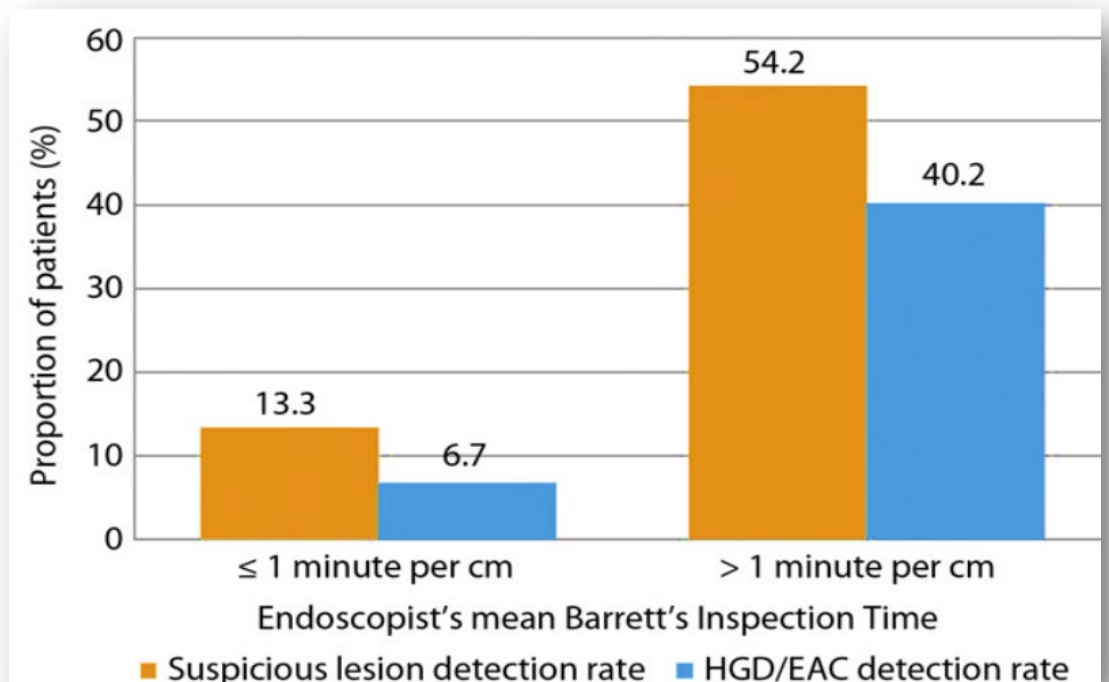
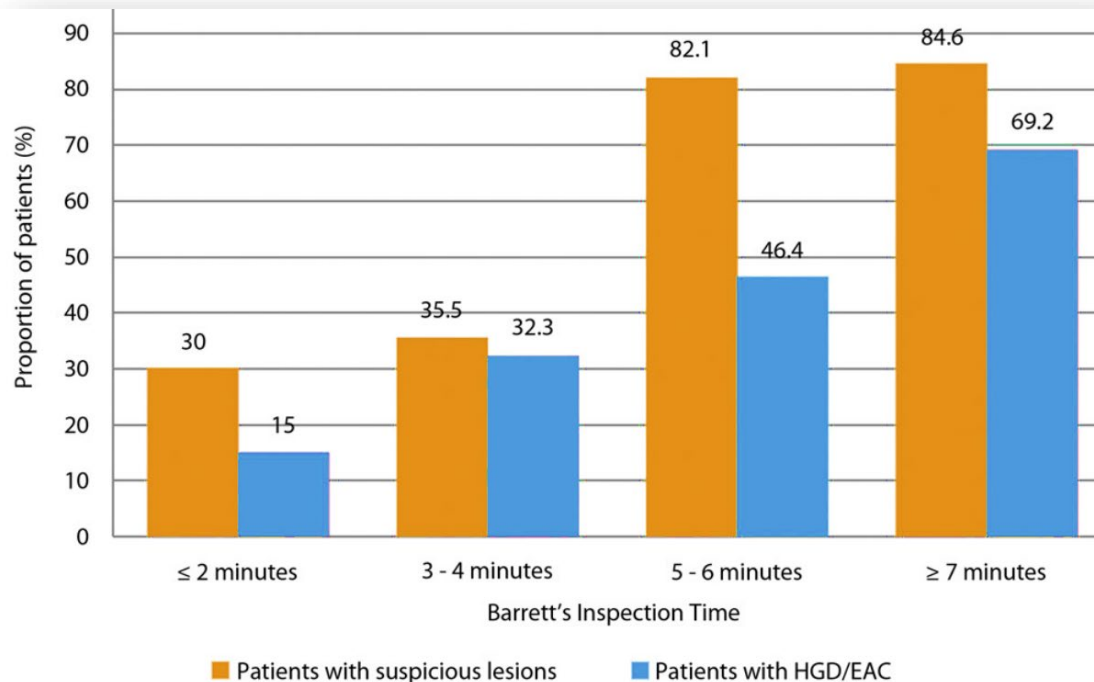
CME

Neil Gupta, MD, MPH,^{1,2} Srinivas Gaddam, MD, MPH,¹ Sachin B. Wani, MD,^{1,2} Ajay Bansal, MD,^{1,2}
Amit Rastogi, MD,^{1,2} Prateek Sharma, MD^{1,2}

Gastrointest Endosc 2012;76:531-8.

Más tiempo de observación del Barrett
Más lesiones sospechosas y más
Cáncer o displasia de alto grado

>1min por cada cm de Barrett
>Más lesiones sospechosas



Estudio histológico del esófago de Barrett

**Protocolo
Seattle**

**4 biopsias
Cada 2 cm**

Todas las guías

Alteraciones morfológicas en E. Barrett

Clasificación de parís

Todas las guías

Esofagitis

Clasificación de Los Ángeles

**Todas las Guías
Todos los expertos**

Esofagitis grado D, úlceras

Apariencia atípica

Biopsias

IBP 6 semanas

Biopsias

Estenosis esofágica

**Biopsias antes
de la dilatación**

Todas las guías

Mucosa gástrica heterotópica esófago cervical

3-12%

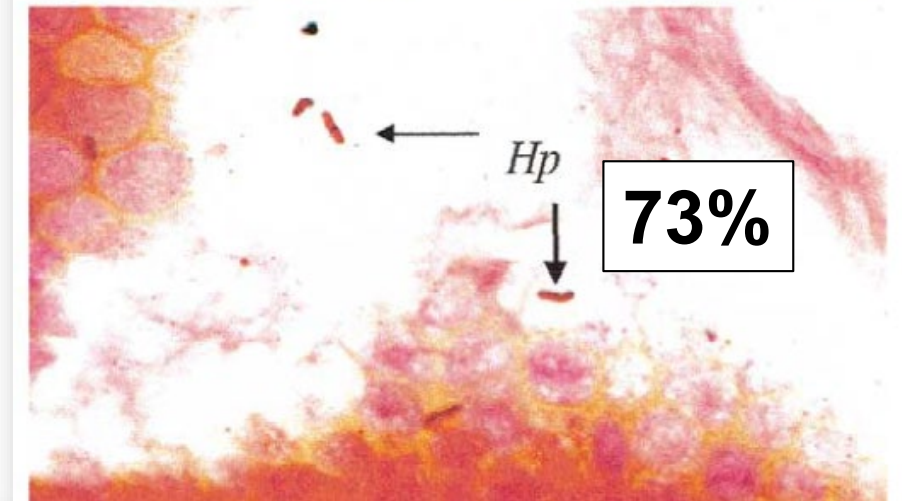
Sahin G, et al Int J Biomed Sci 2014;10:129
Poyrazoglu OK, Int J Clin Pract 2009;63:287–91.

Helicobacter pylori and Heterotopic Gastric Mucosa in the Upper Esophagus (the Inlet Patch)

Oscar Gutierrez, M.D., Taiji Akamatsu, M.D., Hector Cardona, M.D., David Y. Graham, M.D., and Hala M.T. El-Zimaity, M.D.

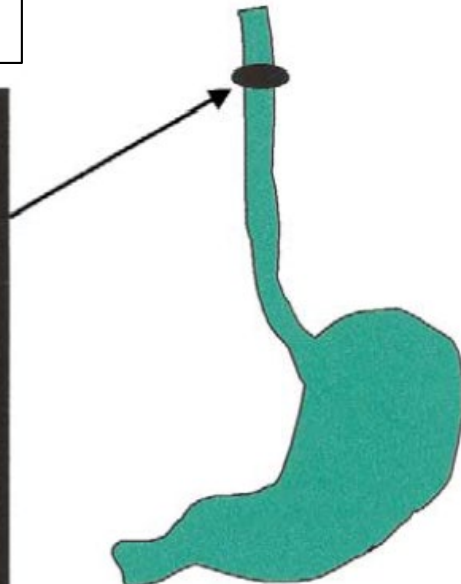
Gastrointestinal Mucosa Pathology Laboratory, Department of Medicine, Department of Pathology, Veterans Affairs Medical Center and Baylor College of Medicine, Houston, Texas, USA; Department of Endoscopy, Shinshu University Hospital, Matsumoto, Japan; and Department of Gastroenterology, National University of Colombia, Bogota, Colombia

Inlet Patch - Dual Stain



Inlet Patch

3.8% (57/1495 un año)

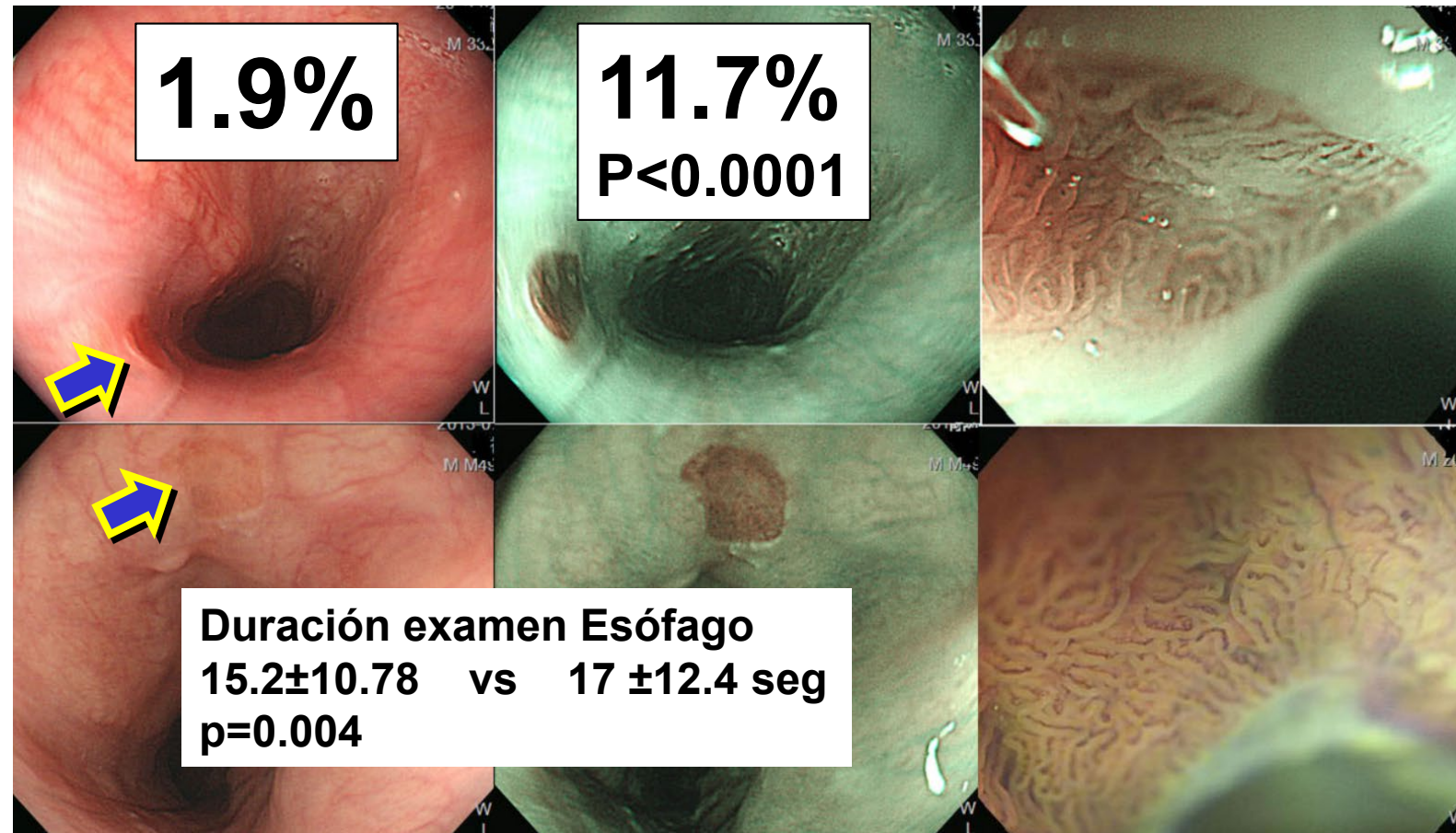


Inlet Patch - Antral Type Mucosa



Intentional examination of esophagus by narrow-band imaging endoscopy increases detection rate of cervical inlet patch

C.-S. Chung,^{1,2} C.-K. Lin,¹ C.-C. Liang,¹ W.-F. Hsu,¹ T.-H. Lee¹



Mucosa gástrica ectópica

**Marcador (“subrogado”)
de examen completo
Del esófago**

**British Society Gastroenterology
Gut 2017;66:1886-99**

Esofagitis eosinofílica

Clinica

**Adolescentes
Adultos**

Disfagia, Impactación, Alimentos
Pirosis refractaria

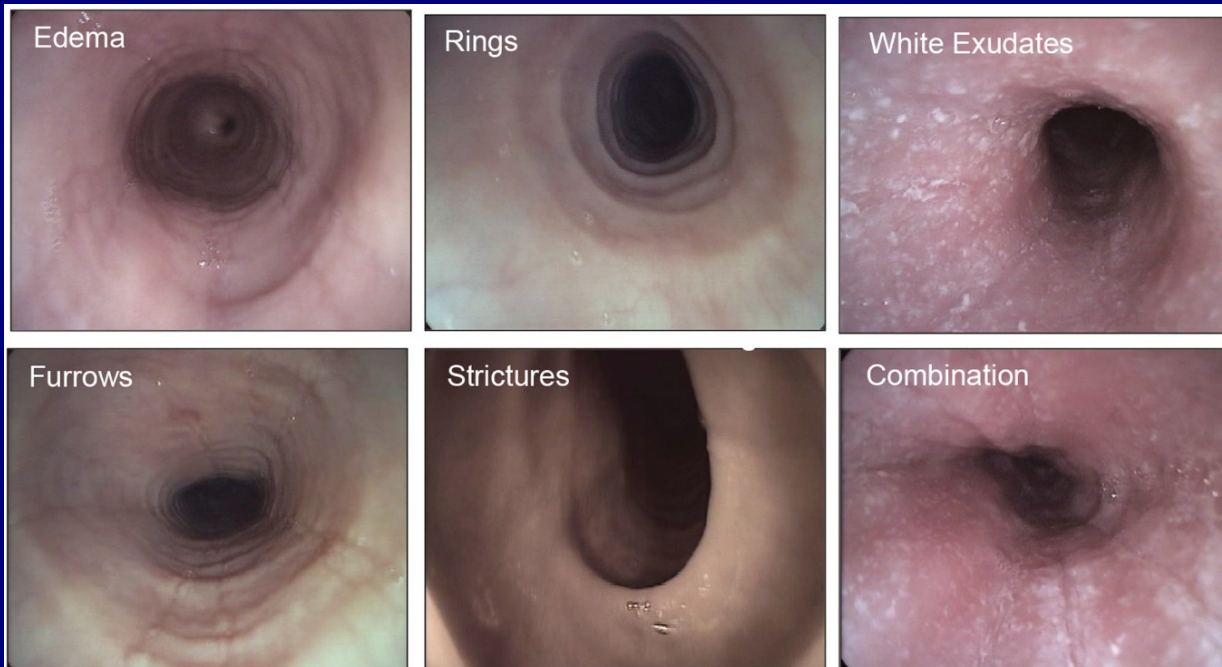
Niños

<Crecimiento, Vómito, pirosis
Malestar abdominal

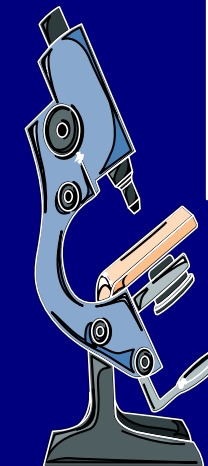
3D

Drogas
Dieta
Dilatación

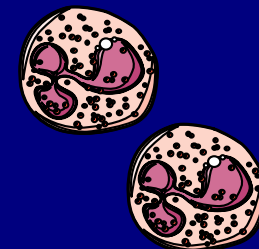
Endoscopia



Histología



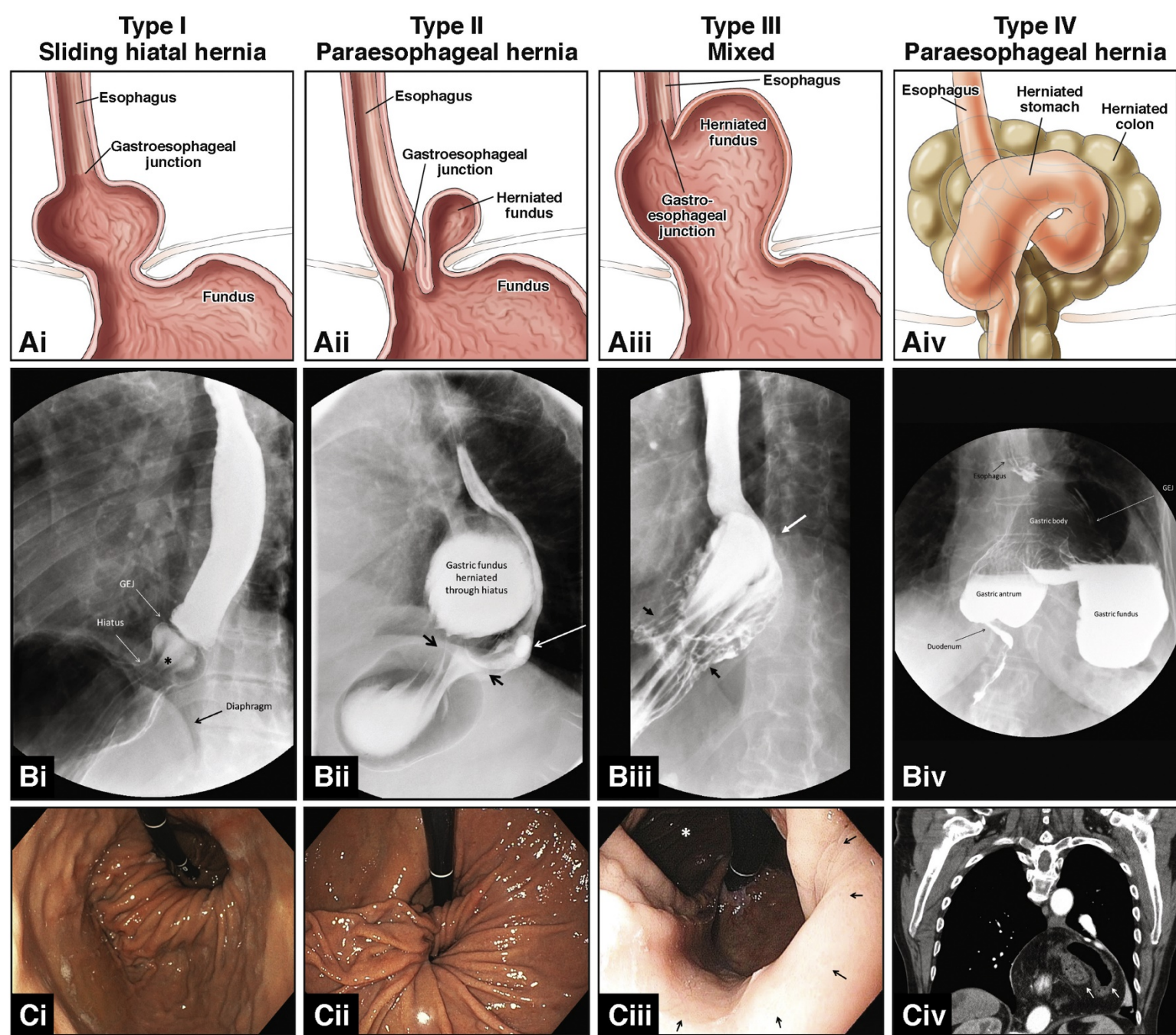
**6-8 Bx
≥15**



Hernia hiatal

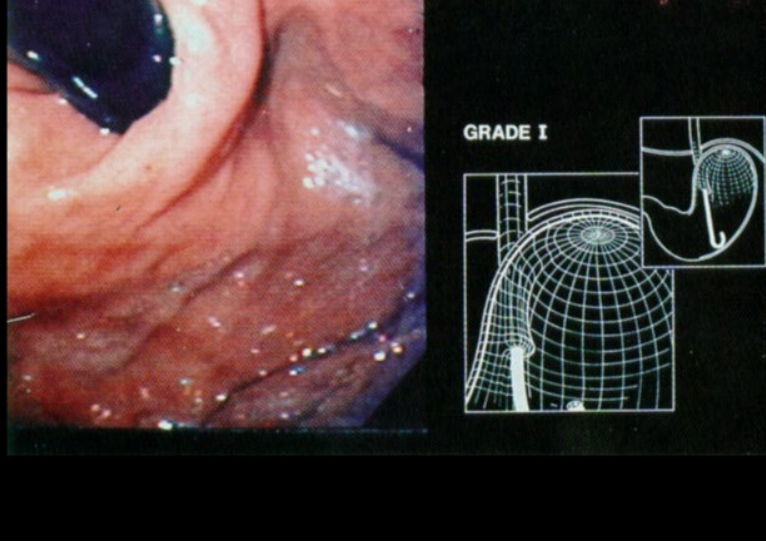
Debe ser documentada y medida

Todas las guías

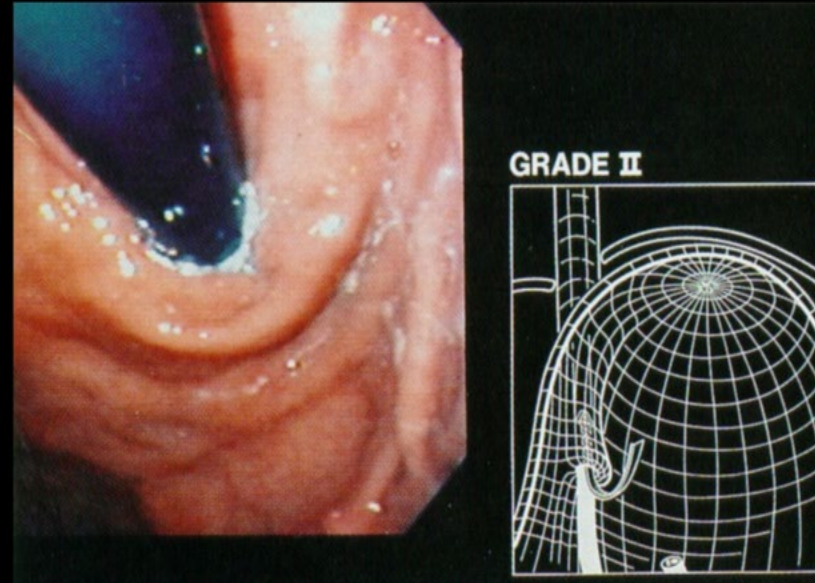


Evaluación endoscópica de la barrera anti-reflujo, Sistema de Hill

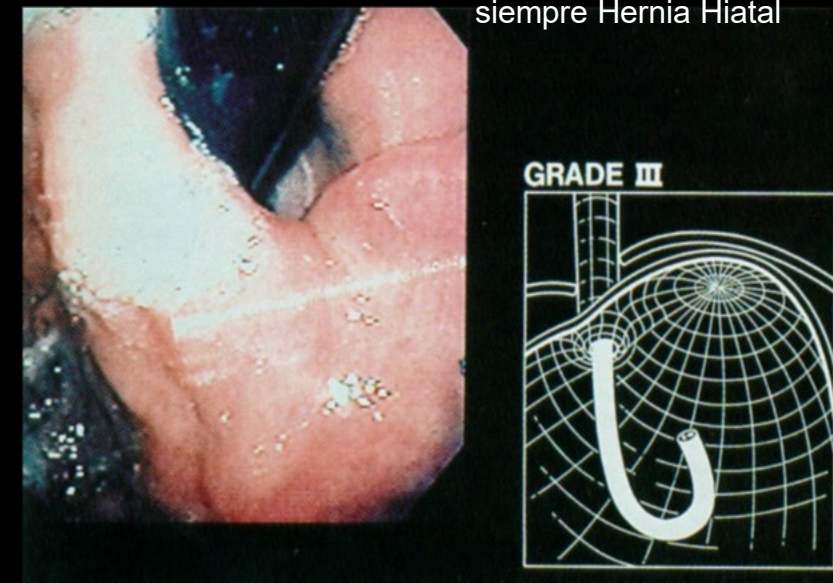
Grado I. La solapa de la válvula. Cresta en estrecho contacto con el endoscopio. Se extiende 3-4 cm hacia curva menor



Grado II. La solapa de la válvula. La Cresta es menos definida, se abre con la respiración y se cierra enseguida



Grado III. La solapa de la válvula. La Cresta apenas se nota. No hay cierre alrededor del endoscopio. Casi siempre Hernia Hiatal



Grado IV. La solapa de la válvula. No hay anillo muscular. El área gastroesofágica permanece abierta, se ve el Epitelio escamoso. Hay hernia hiatal siempre

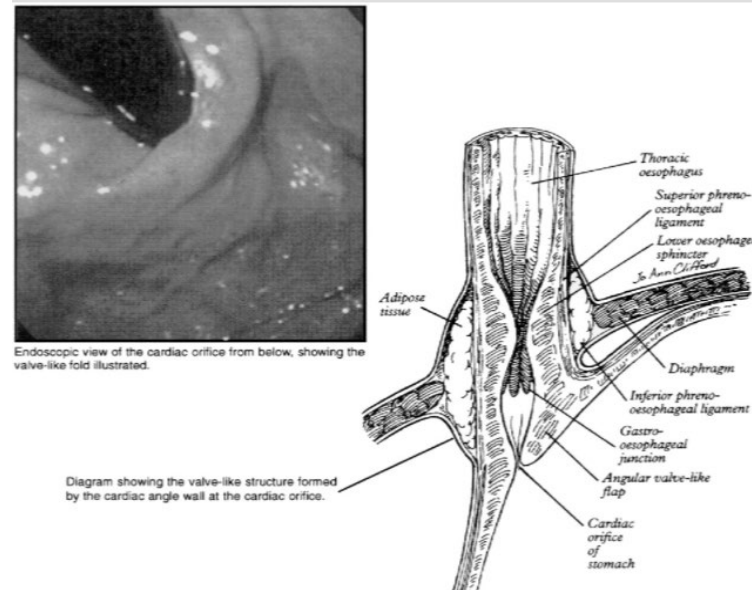
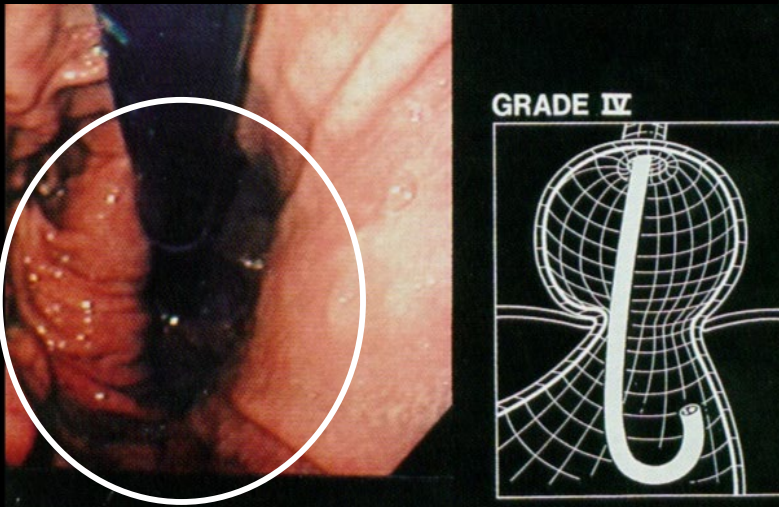


FIG. 1

The acute angle between the oesophagus and the upper part of the cardia (the angle of His or cardiac incisure) is extended within the lumen as a large fold. It has been proposed as a mechanism additional to the lower oesophageal sphincter limiting oesophageal reflux of gastric fluids. The various operations currently utilized in these patients accomplish this goal by reducing any hiatal hernia back into the abdominal cavity and rebuilding a functional flap valve mechanism.

Source

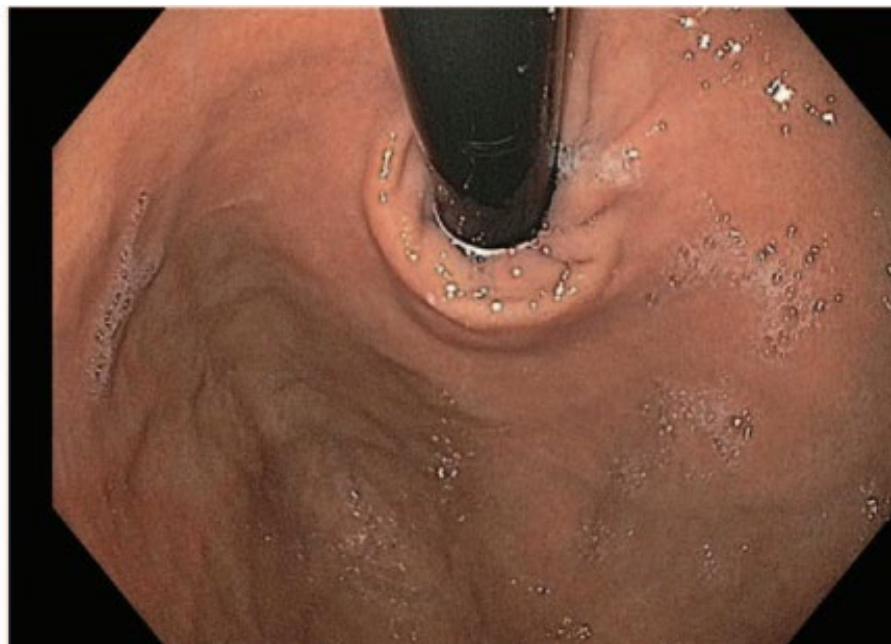
The Gastroesophageal Flap Valve

Journal of Clinical Gastroenterology 28(3):194-197, April 1999.

Hill LD, AJG 1999;28:194-7



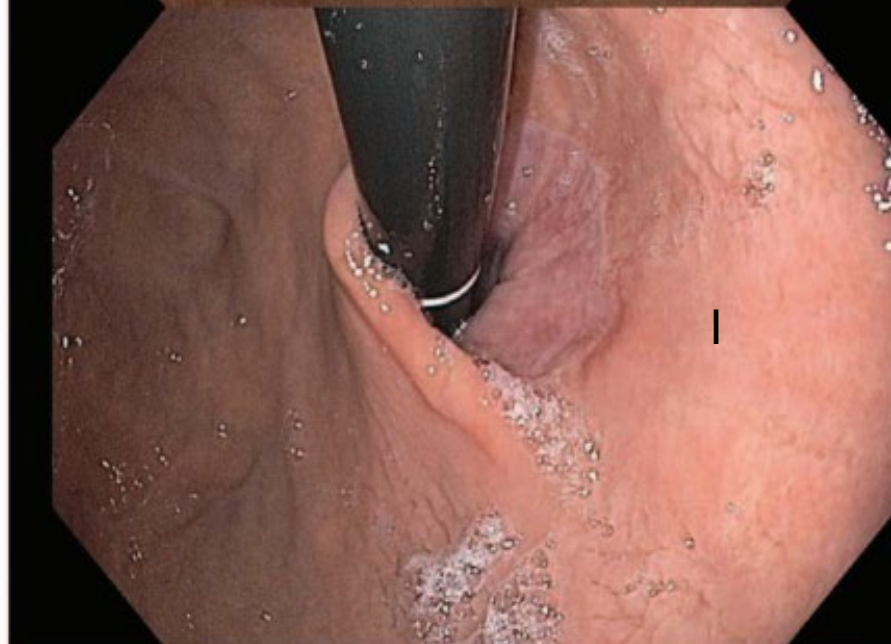
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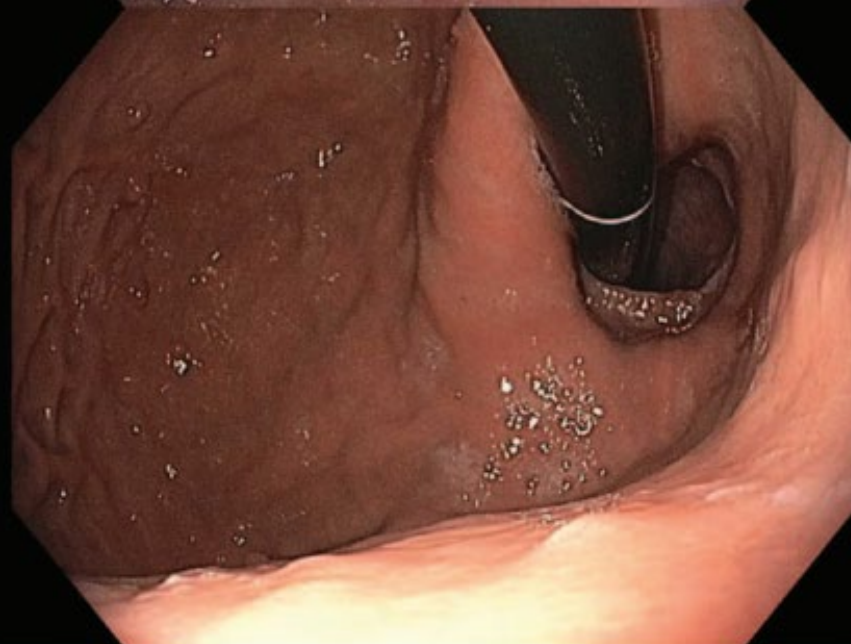
II



III



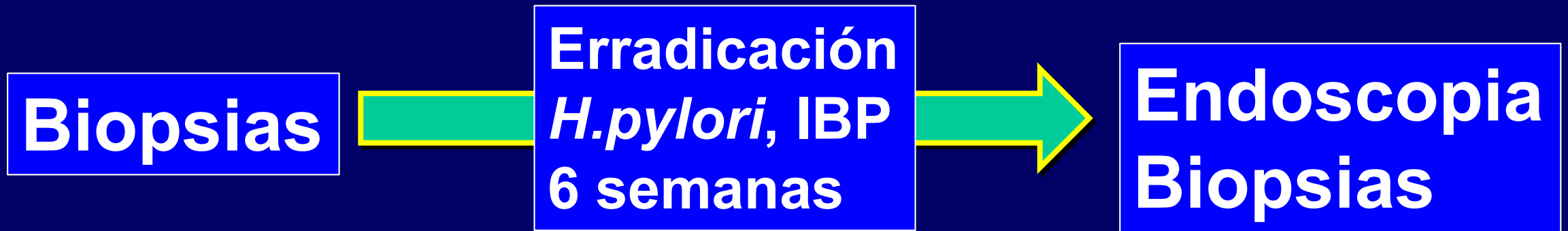
I



IV

60 Segundos

Úlceras gástricas



Todas las guías

Úlcera Gástrica/Duodenal

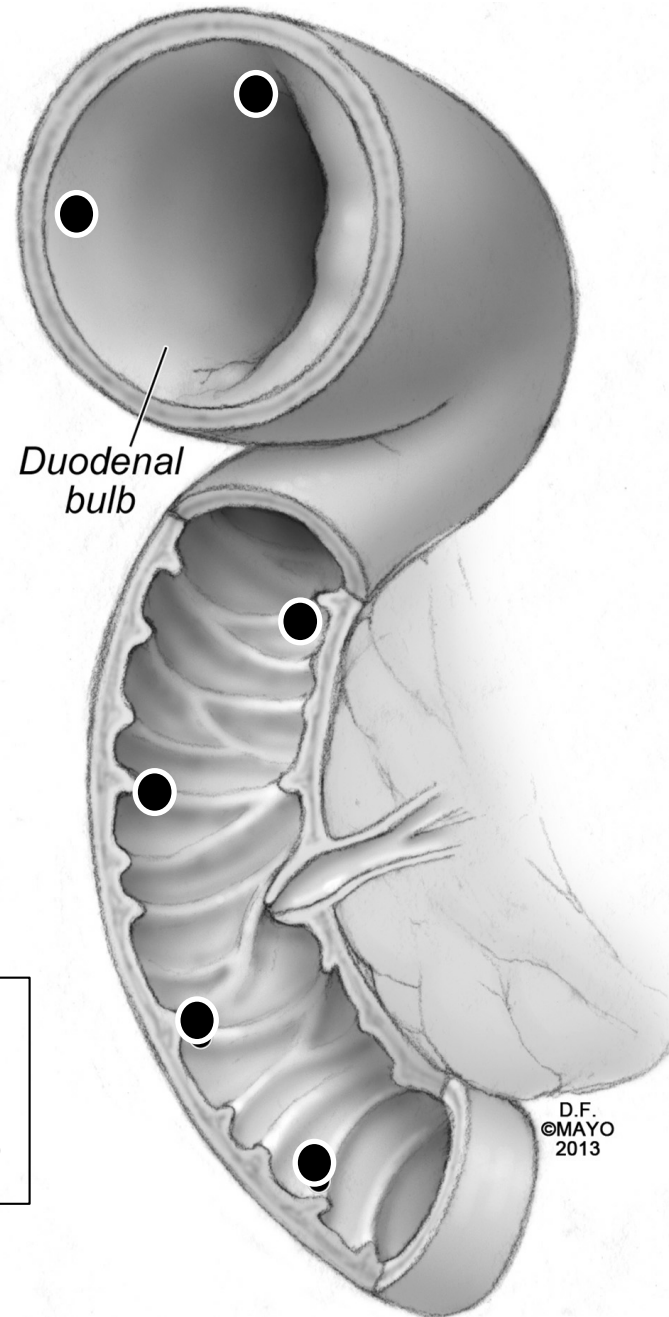
**Investigar y tratar
H.pylori si es (+)**

Todas las guías

**Anemia
Ferropénica**

**Enfermedad
Celíaca**

**Serología (+)
No se ha estudiado**



**Frascos
Diferentes
Estómago**

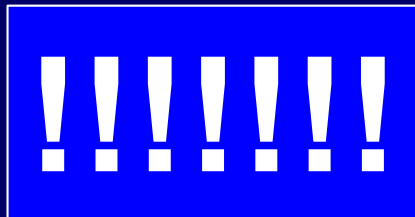
Estàndar bàsico en Estómag

Helicobacter pylori

Estratificaciòn riesgo de càncer gàstrico

Severidad de atrofia (OLGA)

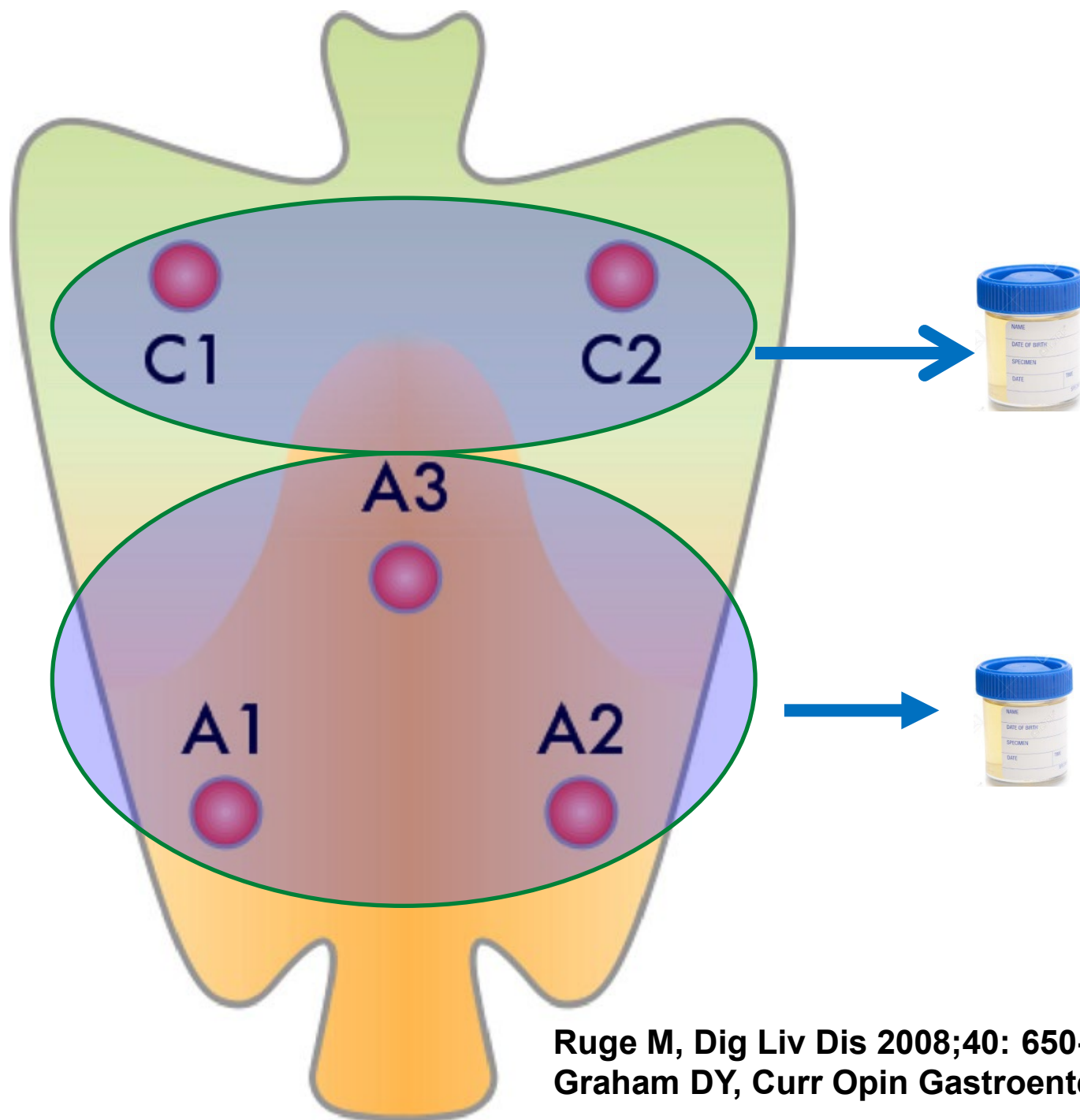
Metaplasia intestinal(OLGIM)



Mkioto 2015

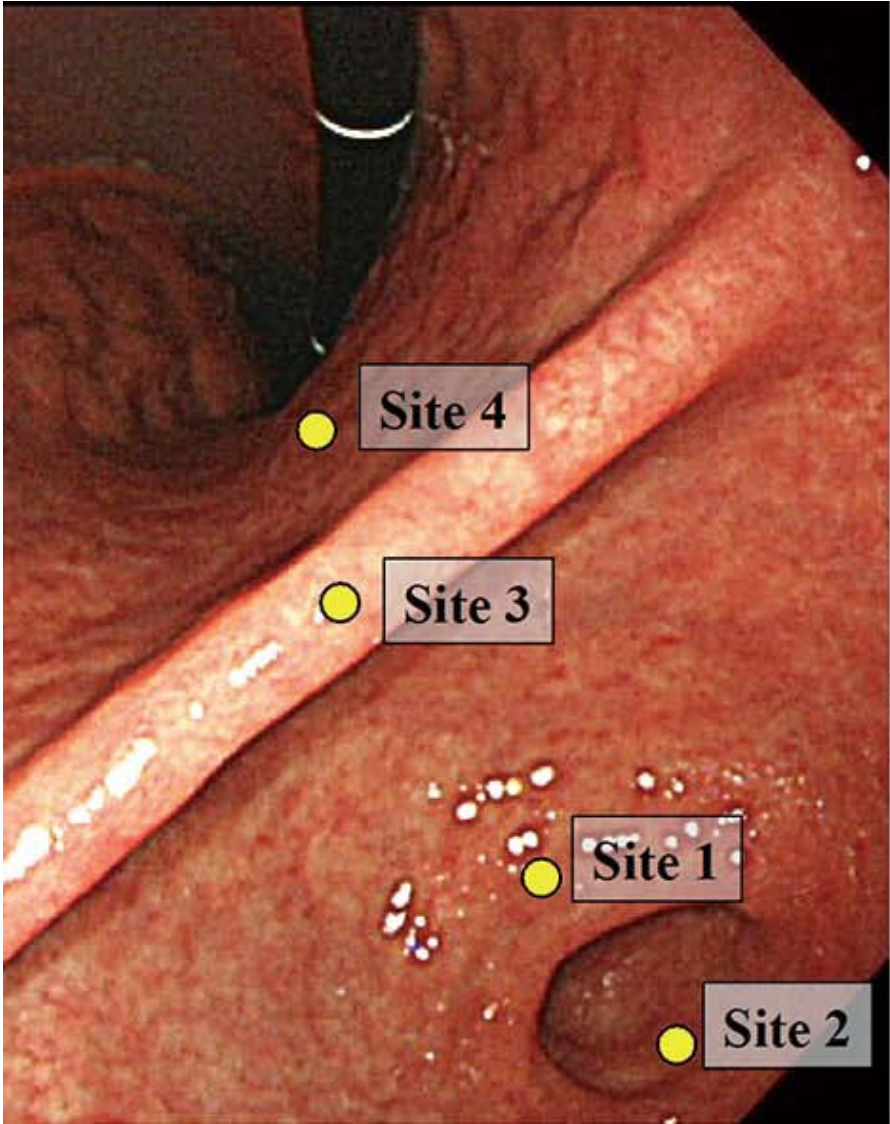
Maastricht 2017

Biopsias Protocolo Sídney

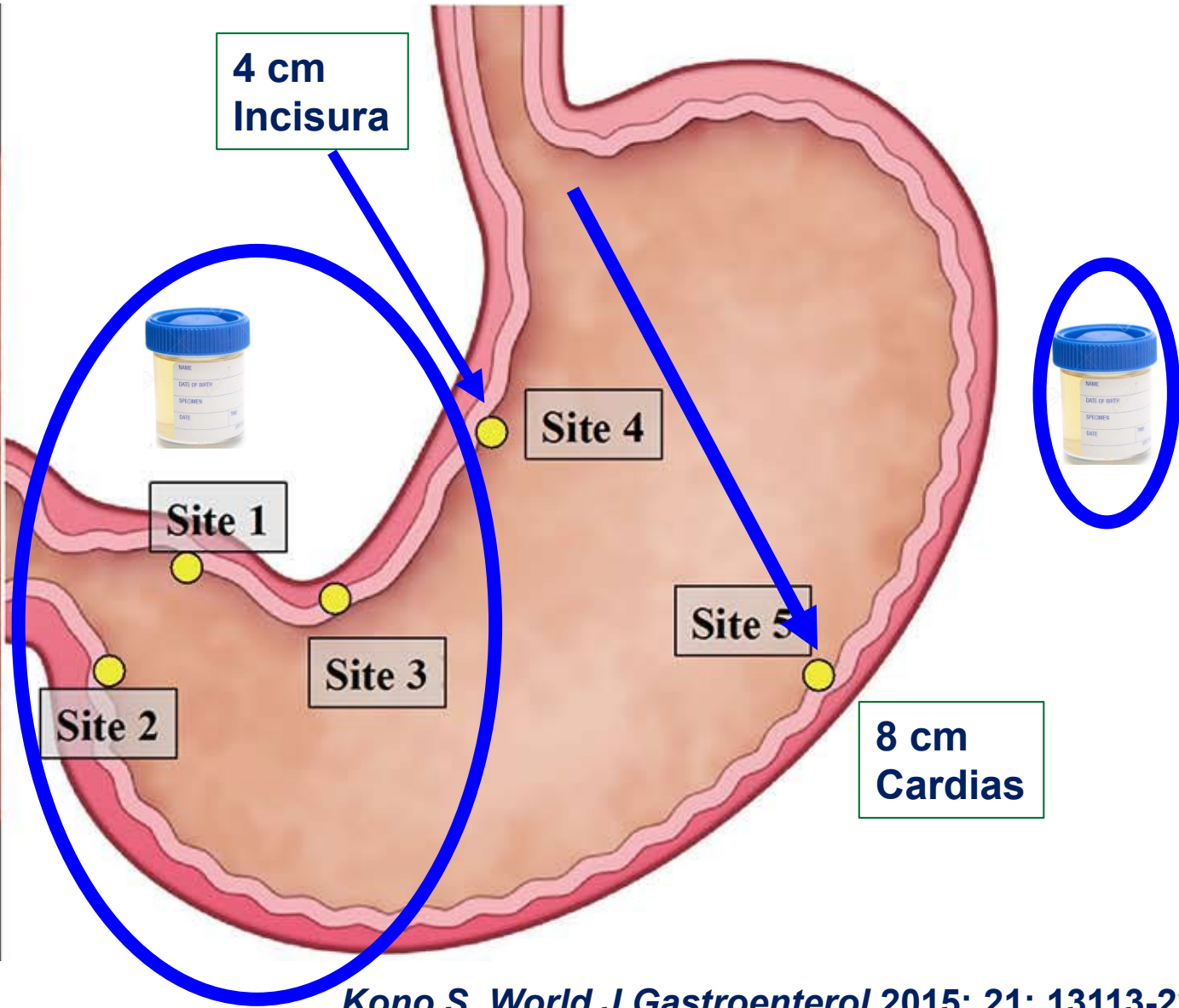


Ruge M, Dig Liv Dis 2008;40: 650-8
Graham DY, Curr Opin Gastroenterol 2019;35:535–43

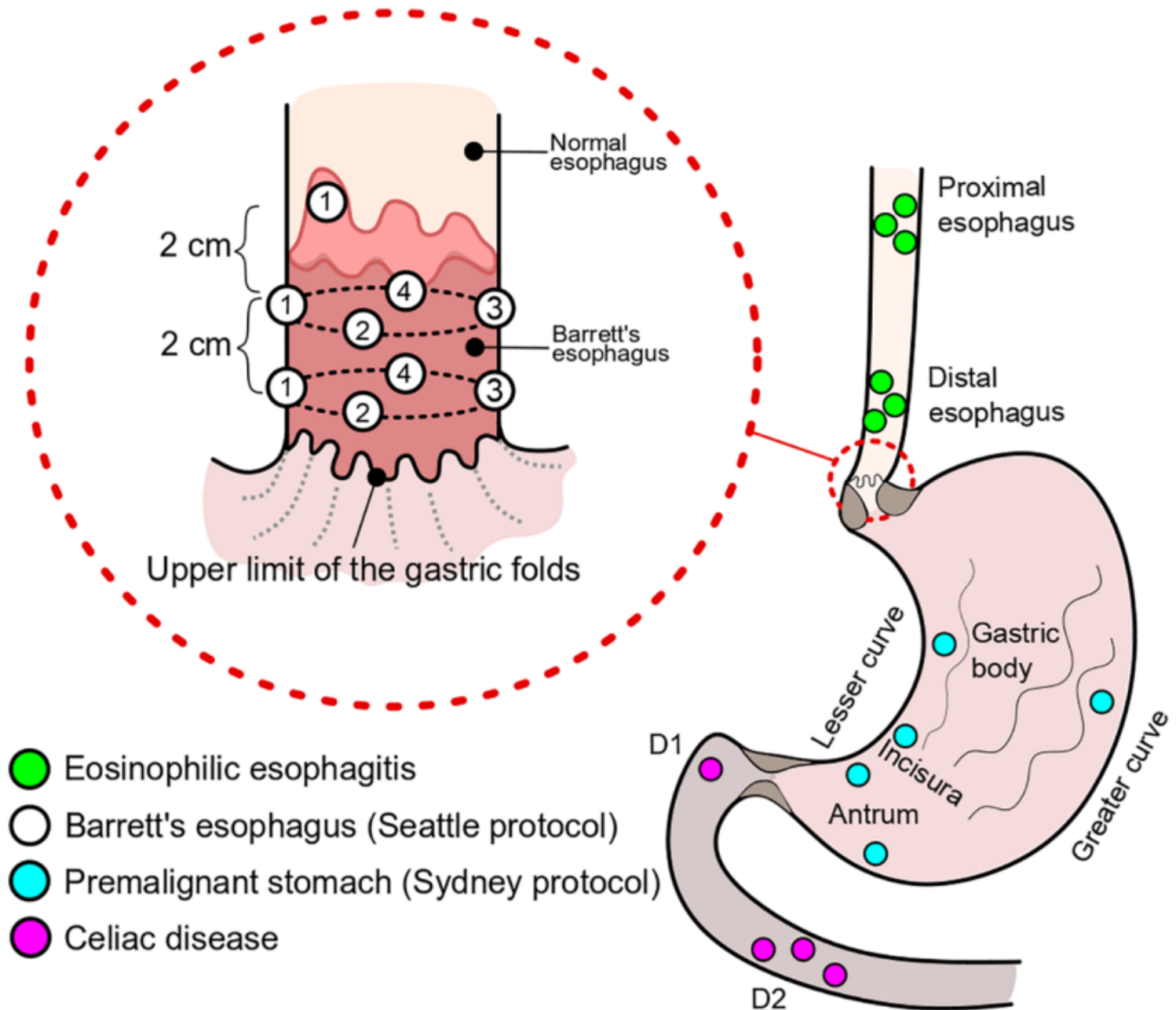
Biopsias sistema Sídney



Biopsias No dirigidas



Kono S, World J Gastroenterol 2015; 21: 13113-22



EVDA

Pos procedimiento

Informe escrito completo Con recomendaciones



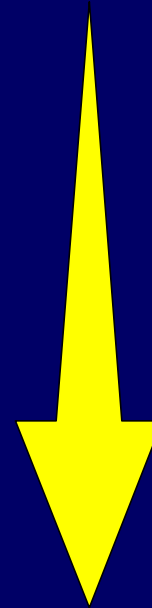
**Para el paciente
Para el patólogo**

Todas las guías

Solicitud de patología



***Debe incluir el informe
Del procedimiento con
todos los detalles***



***Especímenes para patología
Intactos, no fragmentados***



**El clínico y el patólogo son amigos indisociables
Trabajan con la mejor evidencia publicada**

***Estar atentos a las quejas
pos procedimiento
Complicaciones***

Sharma P, Gastrointest Endosc 2021;94:989-94

Top 10 tips for performing a high-quality upper endoscopy (with videos)

Prateek Sharma, MD, FASGE

TABLE 1. Top 10 tips for performing a high-quality upper endoscopy

1. Collect the patient's medical history, obtain informed consent, confirm the indication for the procedure, and review the risks, benefits, and alternatives to the procedure.
2. Stand comfortably, follow appropriate intubation technique, use torque effectively, go slow, and reduce the gastric loop in the descending duodenum.
3. Clean the surface mucosa.
4. Take your time and inspect carefully.
5. Follow guidelines for biopsy sample removal.
6. Perform retroflexion and carefully inspect the cardia and fundus.
7. Obtain high-quality images of key landmarks and abnormal findings.
8. Use standardized classification systems for abnormal findings.
9. Do not ignore the signs and symptoms of possible adverse events.
10. Set an appropriate endoscopy surveillance schedule and do not overuse endoscopy.

Sharma P, Gastrointest Endosc 2021;94:989-94

Endoscopias de control

Vigilancia

No abusar de los controles

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Sharma P, Gastrointest Endosc 2021;94:989-94

Digestive findings that do not require endoscopic surveillance – Reducing the burden of care: European Society of Gastrointestinal Endoscopy (ESGE) Position Statement

Enrique Rodríguez-de-Santiago^{* 1}, Leonardo Frazzoni^{* 2}, Lorenzo Fuccio², Jeanin E van Hooft³, Thierry Ponchon⁴,
Cesare Hassan⁵, Mário Dinis-Ribeiro^{6,7}

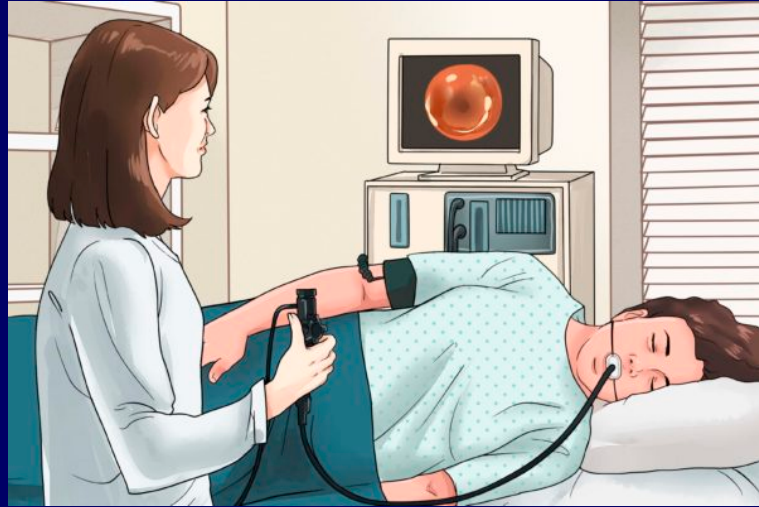
Rodríguez-de-Santiago E, Endoscopy 2020, Mayo 20

TABLE 2. European Society for Gastrointestinal Endoscopy recommendations against endoscopic surveillance

Endoscopic surveillance should not be used in patients with the following:
• An inlet esophageal patch • Los Angeles grade A or B erosive esophagitis or <1-cm columnar-lined esophagus • Intestinal metaplasia limited to the antrum, with exceptions • Fundic gland polyps in the absence of suspicious endoscopic features or hereditary syndromes • GI leiomyomas, lipomas, and antral pancreatic rests, provided that these lesions have typical ultrasonographic features • Duodenal peptic ulcer, unless symptoms persist despite adequate therapy • GI conditions when the individual is over 80 years old, has less than 10 years of life expectancy, and is in poor general health

Diagnostico de patologia

“Gastritis crónica con metaplasia Intestinal”



Endoscopia cada año



Vigilancia de Gastritis Crònica
5 Biopsias: cuerpo (2), Antro (2), Incisura (1)

Helicobacter : erradicarlo

***OLGA
0-II***

Observar

***OLGA
III/IV***

Vigilancia

Kioto ?
Italia c/3 años
Chile C/1 año
China C/1 año
Colombia c/2 años

Sugano K, Kyoto Global Consensus. Gut 2015; 64:1353-67
Zagari RM, Dig Liver Dis 2015;903-12
Rollán A, Rev Med Chile 2014;142:1181-92
Yue H, Gastric Cancer 2018;21:579-87
INC Colombia 2019
Otero W, Temas escogidos de Gastroenterología, 2019

Esófago de Barrett sin displasia
Cada 3-5 años

Sharma P, GIE 2021;94:989-94

Medidas de calidad propuestas

Variable	Medida	Razón Fundamental
Tiempo examen E de Barrett	1 minuto por cada 1cm de longitud	Más tiempo de inspección, mejor análisis, mas detección neoplasia
Tasa detección Neoplasia en Barrett (NDR)	% detección displasia en endoscopia inicial para tamización Barrett	NDR reflejaría adecuada inspección del Barrett
Adecuado número de biopsias para cáncer gástrico	%EVDA para metaplasia intestinal con ≥ 5 biopsias	Tasa de biopsias adecuadas que se toman
Tiempo de inspección	% de EVDA para metaplasia intestinal > 7 minutos (Igualmente Cáncer temprano)	A mayor tiempo inspección, mejor mayor tasa de detección de neoplasia
Tasa de investigación y erradicación <i>H.pylori</i>	% de EVDA que documenta investigación <i>H.pylori</i> cuando hay ulceras pépticas	A todos los pacientes con úlceras pépticas se les debe investigar <i>H.pylori</i>
Número biopsias sospecha Enfermedad celíaca	≥ 4 Biopsias duodenales deben tomarse	Al menos cuatro biopsias se necesitan diagnosticar enfermedad celíaca
Esofagitis eosinofílica biopsias proximales y distales	% EVDA por sospecha de EE en que tomaron biopsias proximales y distales	2-4 biopsias proximales y distales aumentan diagnóstico EE

Sharma P, Barasa , Shaheen N, Gastroenterology 2020;158:9-13. ;

Mensajes para la casa

1999

TO ERR IS HUMAN

Building a Safer Health System

**“Si no lo puedes medir,
no lo puedes mejorar”**

Linda T. Kohn, Janet M. Corrigan, and
Molla S. Donaldson, *Editors*

Committee on Quality of Health Care in America

INSTITUTE OF MEDICINE

NATIONAL ACADEMY PRESS
Washington, D.C.

**Es urgente implementar
La calidad endoscopia ALTA
Seguir las guías sobre el
Tema!**

Muchas gracias!