

VIII CONGRESO CHILENO DE
**CIRUGÍA BARIÁTRICA
Y METABÓLICA**



Urgencias Bariátricas (¿qué hago, a quién llamo?)

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Sin conflicto de interés

Generalidades

- Complicación precoz = antes de 90 días Post Op.
- Morbilidad precoz ¹= <10%, siendo CD > 2 ² = 4%
 - >65 años^{3,4} = 20.1%
- Mortalidad Quirúrgica¹ = 0.1 a 0.3%
 - > 65 años^{3,4} = 1.3%

FACTORES DE RIESGO

- Edad
 - > 50 años >>60 años
- Genero
 - Masculino
- IMC > 50²
 - OR:3.6 → Mortalidad
- ASA > III
 - ODDS 4.7; p = 0.02
- Síndrome metabólico¹
 - > EAPO a 90 días
 - Morbilidad: 2.4% vs 1.0%; p < 0.0001
 - Mortalidad: 0.3% vs 0.1%; p < 0.0001
 - Reingresos: 6.2% vs 4.7%; p < 0.0001
- Hipoalbuminemia
 - ODDS: 7.4 ; p < 0.001 → ISO
- Tabaquismo
 - Filtración RR 1.8
 - Reoperación RR 1.7
 - Neumonía RR 1.15
- Cirugía revisional
 - 22% vs 3.5% ODDS 19; p = < 0.001
 - ISO y filtraciones
- Cirugías abdominales previas
 - ODDS: 7.2 p < 0.001
 - ISO y filtraciones

1. J Am Coll Surg 2012;214:550–6.
2. Surg Obes Relat Dis 2007;3:134-40
3. Ann Surg Treat Res. 2018;95:100-110.
4. Surg Clin North Am. 2016;96:743-62
5. Surg Endosc. 2021;35:3905–3914.
6. Can J Anaesth 2012;59:268–279
7. Surg Endosc 2018; 32:720–726

MANGA - ESTENOSIS

- 1-4%¹⁻⁴
- Presentación: 5.3 ($\pm$ 4.2) meses
- Causas³
 - Funcional 84%, técnica 11%, péptica 5%
- Tto:
 - Med: IBP + sucralfato
 - Endoscópico
 - Dilatación neumática¹⁻⁴
 - Estenosis largas > 3 cm $\rightarrow$ balón de acalasia
 - Eficacia 70%³
 - Alternativas:
 - Redilatación, balón de acalasia (30mm)
 - Prótesis, sección endoscópica, mixta
 - Cirugía

MANGA – HEMORRAGIA PERITONEAL

- Tasa: 1% - 5%
- Tiempo: <30 días (70%)
- Sitios:
 - línea de sutura (57%), omento y vasos cortos (14%), hígado, bazo
- Complicaciones asociadas a hematomas
 - 50% se infectan y 25% filtran (Tto conservador)
 - 4 de 8 casos → IFX
 - 2 de los 4 casos → filtración
 - Filtración tardía: día 40 post op
 - Aumenta filtración de 0.3% a 4.4% = 15 veces más

- Tto:
 - Tto conservador
 - caída de hb 4 puntos, tx 2 unidades
 - pero.... 50% se infectó
 - Cx en 50%
 - peritoneal con compromiso HDN
 - 9 de 17 casos
- Prevención
 - Refuerzo p<0.05
 - Sellantes Controversial

MANGA - FILTRACIÓN

- Tasa 0.4% a 3.3%
- Clasificación
 - Csendes
 - Precoz < 3 días, Intermedia 4 a 7 días y tardía > 7 días
 - **Tipo I:** Subclínica, **Tipo II:** clínica
 - Proximal (71%) o distal
 - 2012
 - Aguda <1 sem
 - Precoz 1-6 sem
 - Tardía 6-12 sem
 - Crónica > 12 sem

- Tratamiento
 - **Tipo I :** Pigtail (organizadas), prótesis (+dren)
 - **Tipo II:** Sutura, dren, prótesis, OBESCO, EndoVAC, bypass.
 - Manga alta presión 43 ± 8 mmHg vs 34 ± 6 mmHg
- Estadía aprox 1 a 2 meses
- Tiempo de cierre : 43 días vs bypass 30 días
 - Reoperación + dren + sutura

MANGA - REFUERZO

- Metanálisis ¹
 - 2010-2022, 17 ECR (12 c/poco riesgo de sesgo)
 - Sangrado: OR 0.25, $p < 0.001$, NNT: 28
 - SDE²
 - Filtración: OR 0.43, $p = 0.02$, NNT:73
 - SDE²
 - Reoperaciones: OR 0.32, $p = 0.04$, NNT:27
 - OR 3.07², $p=0.01$, NNT 114 → sesgos de información
 - Vómitos prolongados OR 2.52, $p = 0.006$, NNT: 19
 - Estenosis SDE

MANGA – TROMBOSIS

- Generalidades
 - 0.3-0.4%
 - Manga 80% Bypass 20%
 - 10-15 días post op
 - <90% en el primer mes
 - Dolor abdominal vago inespecifico, nauseas/vómitos
 - Leucocitosis 38%, fiebre 13%
 - Mortalidad 4%
- FR
 - Anticonceptivos orales (35.4%)
 - Tabaquismo activo (37.2%)
 - Cirugía previa (61.1%)
 - Historia de TVP (43%) o trombofilia
- Complicaciones postoperatorias

- Dg
 - TC abdomen y pelvis con cte ev.
 - Vena: Lucidez central, aumento del diámetro y pared venosa bien definida.
 - Otros: Engrosamiento de la pared intestinal y mesenterio, Ascitis
- Tratamiento
 - Anticoagulación (HBPM → ACO * 3 A 6)
 - Tto médico efectivo en > 80% de casos
 - Trombólisis
 - Quienes no responden
 - Cirugía
 - Necrosis

Bypass - ESTENOSIS

- 3.4-5%, estenosis de aprox < 10mm
- < 3 meses post op
- Etiología
 - Úlceras (HP, tabaco, AINES)
 - Técnica (diametro, antecolico vs retrocolico -> controvercial)
- Clínica
 - Vómitos, imposibilidad de progresar en régimen
- Diagnóstico
 - EDA
 - Diametro y longitud
 - Clasificación 1-4 (1: 10.5, 2: 8.5, 3: guía, 4 oclusión)

- Tto
 - IBP + SUCRALFATO
 - Erradicación de HP
 - Cesar: tabaco, AINES
- Dilatación EDA
 - 15 MM
 - Balón
 - Bujía
 - 1 A 2 dilataciones
 - No afecta resultado final de peso¹
 - Empeora resultado final²
- Cirugía <1% de los casos

Bypass - FILTRACIONES

- Tasa
 - 0 a 5.6%
- Mortalidad
 - 2.3%
- Riesgos
 - Hombres
 - IMC > 50
 - Comorbilidades
 - Cx previas

• Localizacion

Location	Incidence
Gastrojejunostomy	67.8%
Gastric pouch	10.2%
Gxcluded stomach	3.4%
Jejunojunal anastomosis	5%
Gastrojejunostomy plus pouch	3.4%
Pouch plus excluded stomach	3.4%
Undetermined sites	6.8%

- Dg
 - Día 5 a 7 post op
 - Clínico
 - FC > 120
 - Imágenes
 - **TC c cte ev + hidrosoluble vo**
 - EDA c/C02

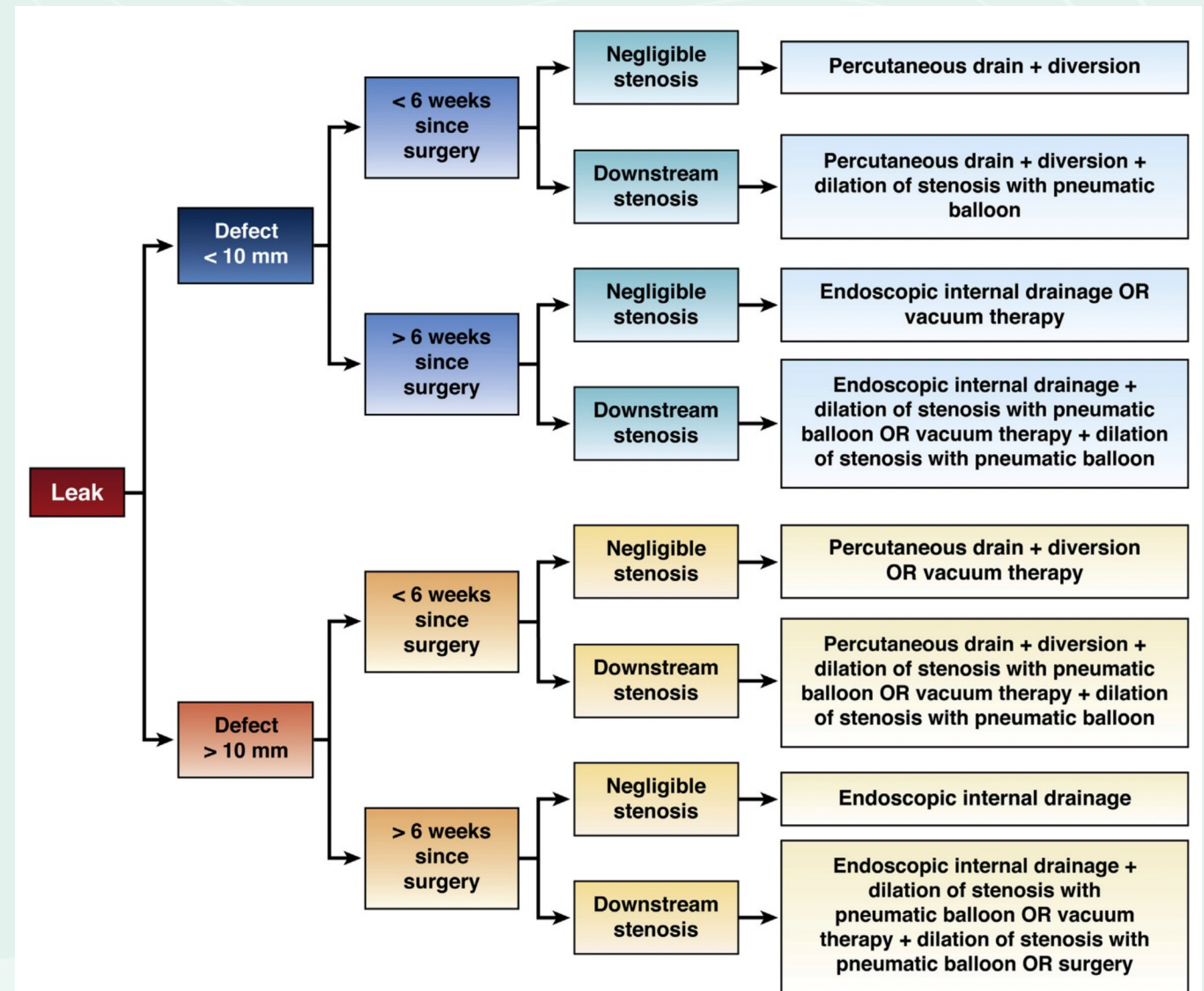
Bypass - FILTRACIONES

Consejos

1. Tratamiento **multidisciplinario** con comunicación diaria
2. Conocer **riesgos de intervenciones** EDA y Qx.
3. Se requieren endoscopistas terapeuticos entrenados.
4. Búsqueda activa de **otras complic** (nutri, med, psico)
5. EDA pueden usarse en forma inmed., precoz o tardía.
6. Conocer la **fisiopatología** de fistulas y estenosis
7. No toda fistula debe cerrarse, pero si **drenarse** (lumen)

CLINICAL PRACTICE UPDATE

AGA Clinical Practice Update on Evaluation and Management of Early Complications After Bariatric/Metabolic Surgery: Expert Review



If leak has not closed after reasonable endoscopic attempts, then surgical revision is required.

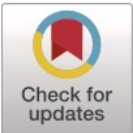
Bypass - FILTRACIONES



Contents lists available at [ScienceDirect](#)

Best Practice & Research Clinical Gastroenterology

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



Management of leakage and fistulas after bariatric surgery

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Endoscopic techniques for management of post-bariatric surgery leaks and fistulas.

	Advantages	Disadvantages	When to use	Other considerations
Closure techniques				
Through-the-scope clips (TTSC)	Universally accessible, easy to use, inexpensive	Require robust surrounding tissue, small opening width, weak closing strength	Acute perforations/leaks <1 cm in conjunction with other modalities. <i>Not recommended as monotherapy</i>	May be combined with detachable snares for large (1–2 cm) defect closure
Cap-mounted clips (CMC)	Familiar hand-wheel mechanism, variable sizes and teeth designs, strong closing strength	Poor capture of fibrotic tissue associated with late defects, must be able to position endoscope <i>en face</i> with the defect	Acute or early leaks, ≤1 cm, without associated collection *Also effective for stent fixation	Recommend tissue fulguration with cautery, APC or endobrush to promote durable closure. Tissue grasping devices may be used for tissue acquisition.
Endoscopic suturing	No defect size limit, possibly fewer endoscopic sessions required	Need for specialized training, lower availability, device size limits access to angulated or narrow locations	Acute and early leaks, small or large defects, best in esophagus or stomach *Also effective for stent fixation	Available for single-channel or double-channel endoscopes
Tissue sealants	Low cost, widely available, minimal risk	Limited to small defects, often require many application sessions	Small defects (<5 mm) with short, uncomplicated fistulous tracts <i>Not recommended as monotherapy</i>	Cyanoacrylate glues are 6x cheaper than fibrin derived sealant though less effective. May be applied endoscopically or percutaneously
Covering techniques				
Self-expanding metal stents (SEMS)	Widely available, allow early enteral nutrition, no defect size limit, may be used in conjunction with most other modalities	Poorly tolerated, high rate of side effects, significant risk of migration and ulceration	Acute and early leaks, small or large defects, with concomitant drainage of any collection <i>Stent fixation should be performed when using FCSEMS</i>	PCSEMS offer lower migration rate, though extraction is difficult. Bariatric SEMS should be used with caution given higher reported migration rates and intolerance
Cardiac septal defect occluders (CDSOs)	High success rate in chronic defects	Limited availability/expertise, migration risk, limited long-term outcomes data	Late and chronic leaks that have failed prior therapy, with concomitant drainage of any collection	This is an off-label use of these devices
Drainage techniques				
Endoscopic vacuum therapy (EVT)	Widely available, inexpensive, low complication rates	Requires frequent tube exchanges (every 3–7 days), patient must remain hospitalized for the duration of therapy, patient discomfort	Chronic leaks and fistulas with associated collections, intrathoracic leaks, >2 cm diameter	Open-pore film systems allow longer time between exchanges (7 days) compared to open-pore sponge systems (3 days)
Endoscopic internal drainage (EID)	Widely available, minimal risk of complication, well tolerated	Requires stent exchange every 2–4 weeks, not effective for drainage of solid debris, requires adequate pressure gradient to facilitate intraluminal drainage	More effective for leaks > fistulas, small caliber tracts, organized collections <i>Not appropriate for immature collections, gastrogastic fistula, or in the presence of a downstream stricture (without dilation)</i>	External drains should be clamped or promptly removed after placement Consider concomitant nasocystic or percutaneous drain for lavage in cases of purulent drainage
Septotomy	High success rate for chronic defects	Requires well-formed septum, several sessions often required, never appropriate for acute or early leaks	Late or chronic leaks and fistulas with associated perigastric collection and mature septum Use APC for earlier/inflamed septa or cautery-enhanced needle-knife for chronic, fibrotic septa	Should not be performed earlier than 30 days form index surgery Dilation of concomitant distal strictures if often necessary

Bypass - HERNIA INTERNA

- Prevalencia: 0.2 - 8%
- Presentación: > 3-6 meses post op
- Diagnóstico
 - Epigastralgia y arcadas sin vomitos
 - TC abdomen y pelvis con contraste ev
- Tto:
 - Laparoscopia y cierre de brechas
- ¿prevención?
 - Cierre de brechas
 - REDUCCIÓN 50%¹⁻⁵
 - Atención con angulación de anastomosis²⁻⁴

¿RESECCIÓN INTESTINAL?

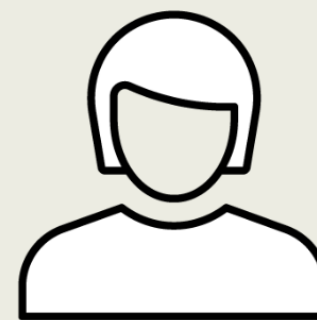
- NO CIERRE 1 CASO (0.6%)
- CIERRE 1 CASO (2,1%)

JAMA Surgery

RCT: Long-term safety and efficacy of mesenteric defects closure in laparoscopic gastric bypass surgery

POPULATION

644 Men,
1863 Women



Adults with severe obesity
Mean age, 41.7 y

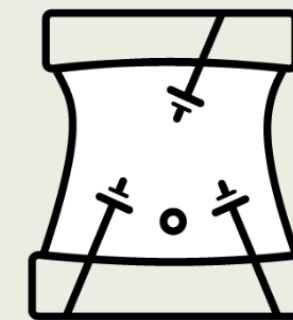
SETTINGS / LOCATIONS



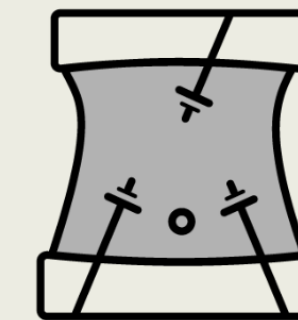
12 Bariatric centers
in Sweden

INTERVENTION

2507 Patients randomized



1259 Mesenteric defects closure
Closure of mesenteric defects using braided, nonresorbable sutures



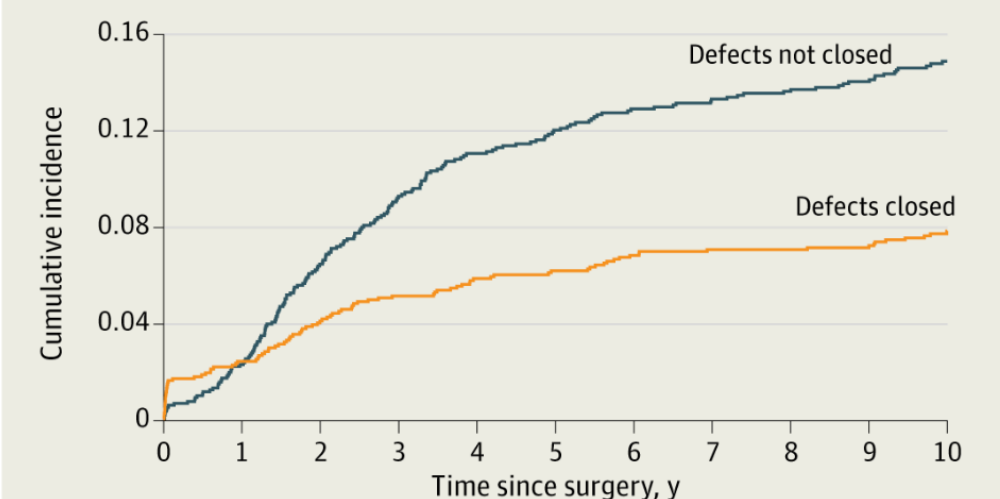
1248 Nonclosure
Nonclosure of mesenteric defects

PRIMARY OUTCOME

Reoperation for small bowel obstruction (SBO) up to 10 y after intervention

FINDINGS

Incidence of reoperations for SBO at 10 y was significantly higher among patients in the nonclosure vs mesenteric defects closure group



Incidence of reoperations for SBO at 10 y
Mesenteric defects closure 7.8%
Nonclosure 14.9%
sub-HR: 0.42; 95% CI, 0.32-0.55; $P < .001$

1. JAMA Surgery. 2023;158(7):709-717.
2. The British Journal of Surgery. 2021;108(2):145-151.
3. Lancet (London, England). 2016;387(10026):1397-1404.
4. Surgical Endoscopy. 2020;34(8):3306-3320.
5. Obesity Surgery. 2020;30(5):1935-1943.
6. Obesity Surgery. 2023;33(7):2229-2236.
7. The Cochrane Database of Systematic Reviews. 2025;4:CD014612.

Consejo – Anteponerse a la complicación

- 1) Reconocer FR
- 2) Controlar factores modificables
Peso, tabaco, HP, corticoides, comorbilidades descompensadas
Estado psicológico del paciente (duelos, stress)
- 3) Emplear estrategias de profilaxis perioperatorias
IBP, Refuerzos de sutura
- 4) Buena técnica quirúrgica
Gentileza y puntos críticos
- 5) Buen consentimiento informado

¿A quién llamar? – NO TENGO TANTA EXPERIENCIA...

Paciente estable:

- A todos los equipos:
 - Quirúrgico, endoscópico, nutricional, psicología, intensivo
- Luego tomar una decisión
 - Fístula: Tiempo de instalación, tamaño del defecto, colección intermedia, obstrucción distal
 - Paciente: Sepsis, nutrición, FR (tabaco, corticoides, IMC, edad, etc)

Paciente inestable

- A cirujano(a) tratante
- ¿pabellón?
 - Hemorragia: Aseo + dren $\pm$ sutura (refuerzo)
 - Filtración: Aseo + dren +/- protesis
 - Obstrucción por HI: reducción y cierre de brecha
 - Necrosis: aseo y valorar control de daños según causa vascular de necrosis

Únete a la comunidad

Sigamos aprendiendo y compartiendo



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