Clinical relevance of Barrett's after sleeve?

Is there actually an increased risk of EAC?

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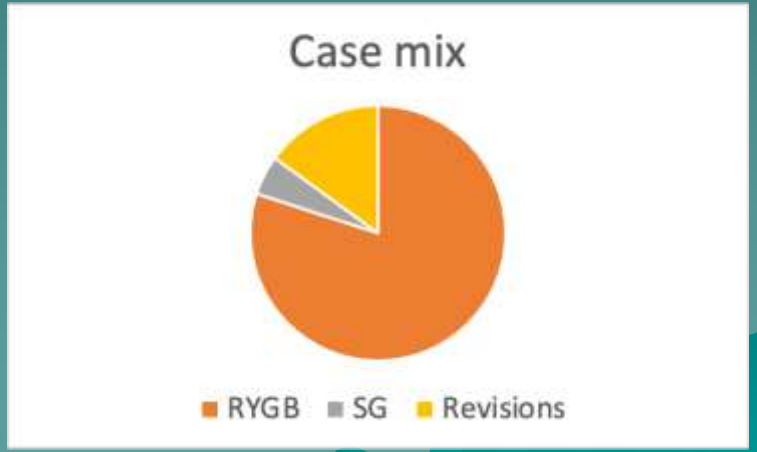
Disclosures

Johnson & Johnson- *Advisory board and Educational activities*

NovoNordisk- *Advisory board and Educational activities*

Reimbursement to my institution



The risk of GERD after sleeve

OBES SURG
DOI 10.1007/s11695-017-2748-9

ORIGINAL CONTRIBUTIONS

Reflux, Sleeve Dilation, and Barrett's Esophagus after Laparoscopic Sleeve Gastrectomy: Long-Term Follow-Up

Daniel Moritz Felsenreich[1] · Ronald Kefurt[1] · Martin Schermann[2] · Philipp Beckerhinn[3] · Ivan Kristo[1] · Michael Krebs[4] · Gerhard Prager[1] · Felix B. Langer[1]

Table 3
The 24-h ph-metry results at 10 years after SG

	Non-converted	Symptomatic reflux	Non-symptomatic reflux	*p* value
24 h ph-metry	**(*n* = 12)**	**(*n* = 6)**	**(*n* = 6)**	
Acid exposure (%)	9.7 ± 8.0	9.7 ± 7.5	9.7 ± 9.2	0.99
(Normal <4.2%)				
Patients increased (%)	58.3	66.7	50	
Reflux activity (nr.)	62.7 ± 37.4	63.4 ± 37.8	62.0 ± 41.5	0.96
(Normal <73)				
Patients increased (%)	41.7	50.0	20	
DeMeester Score	52.7 ± 45.2	56.0 ± 40.9	49.3 ± 52.9	0.81
(Normal <14.72)				
Patients increased (%)	75.0	83.3	66.7	

SG sleeve gastrectomy

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This study presents endoscopic and functional long-term results of SG with a follow-up of at least 10 years. One out of three patients of this study's population underwent conversion for weight regain or GERD. De novo hiatal hernia was found in 45% and Barrett's esophagus in 15% of the patients. Summing up patients who were converted to RYGB and the non-converted patients who took part in the study, GERD was found in up to 38% of the patients (15 females/1 male) in the long-term follow-up. What makes these numbers even more striking is the fact that hiatal hernia, Barrett's esophagus, and GERD were all contraindications to SG diagnosed through gastroscopies preoperatively performed on all patients.

The risk of Barrett’s after sleeve

Preoperative versus postoperative GERD symptoms, PPI intake, and endoscopic findings

110 patients	Preoperative	Follow-up	*P*
GERD symptoms	33.6% (37 pts)	68.1% (75 pts)	<.0001
VAS score	1.8	3	.018
Daily PPI intake	19.1% (21 pts)	57.2% (63 pts)	<.0001
Class A esophagitis	12.7% (14 pts)	46.3% (51 pts)	<.0001
Class B esophagitis	8.1% (9 pts)	32.7% (36 pts)	<.0001
Class C esophagitis	3.6% (4 pts)	11.8% (13 pts)	.04
Class D esophagitis	0	9.1% (10 pts)	.0016
Barrett's esophagus	0	17.2% (19 pts)	<.0001

GERD = gastroesophageal reflux disease; PPI = proton pump inhibitors; VAS = visual analogue scale.

Gastroesophageal reflux disease and Barrett's esophagus after laparoscopic sleeve gastrectomy: a possible, underestimated long-term complication.
Genco A, Soricelli E, Casella G, Maselli R, Castagneto-Gissey L, Di Lorenzo N, Basso N.
Surg Obes Relat Dis. 2017 Apr

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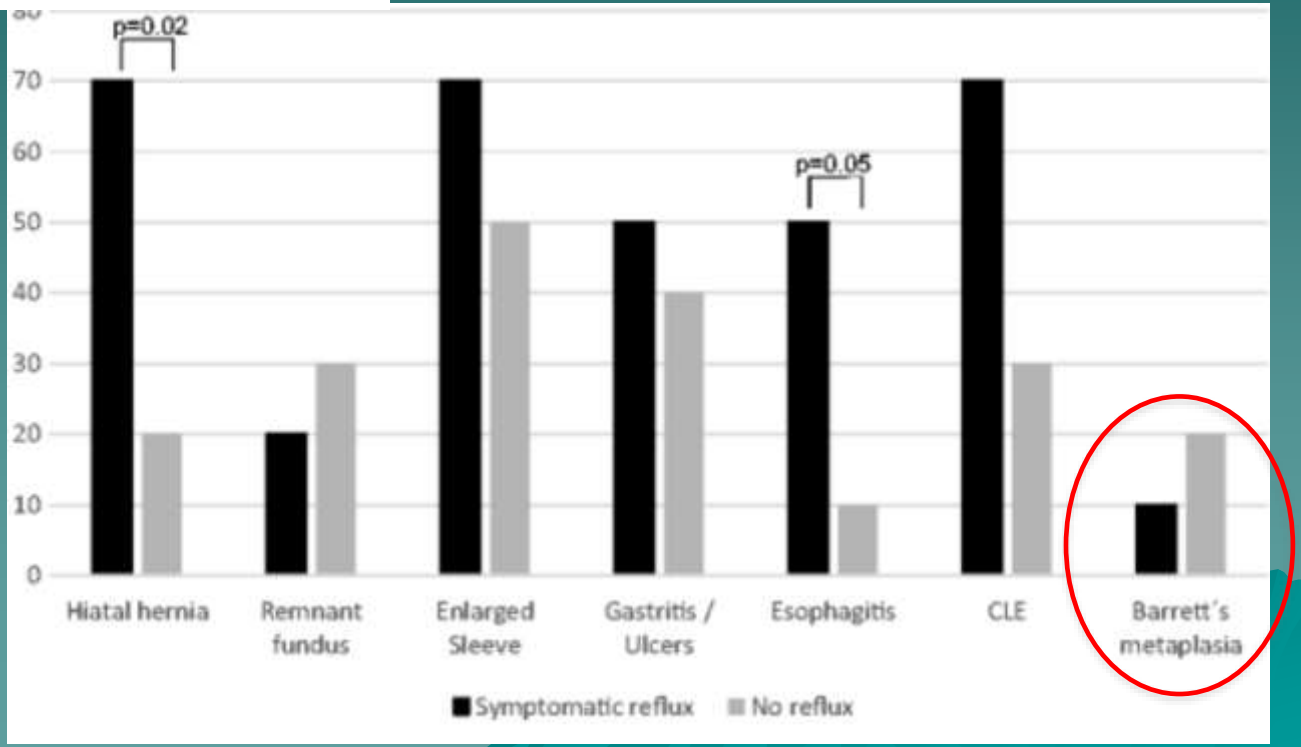


The SLEEVEPASS trial 10-year follow-up

JAMA Surgery 2022; 157(8):656-666Salminen P. et al., 2022

Exclusion: severe GERD and large HH

Gastroscopy 76.5% (176/230)

- Esophagitis: LSG 30.7% vs. LRYGB 7.1% (p<0.001)
- Barrett's:
  - LSG 4.4%
  - LRYGB 3.5% (p=0.287)

Courtesy of Gerhard Prager

Barrett's esophagus after sleeve gastrectomy: a systematic review and meta-analysis

Bashar J. Qumseya, MD, MPH,[1] Yazan Qumsiyeh, MD,[2] Sandeep A. Ponniah, MD,[3] David Estores, MD,[1] Dennis Yang, MD,[1] Crystal N. Johnson-Mann, MD,[4] Jeffrey Friedman, MD,[4] Alexander Ayzengart, MD, MPH,[4] Peter V. Draganov, MD[1]

Gainesville, Florida; Fresno, California, USA

Qumseya B. et al., Gastrointestinal Endoscopy 2020

10 studies included

Follow-up: 6 months – 10 years

Pooled prevalence of BE: 11.6%

There was **no correlation with GERD symptoms.**

Screening for BE should be considered in patients after SG even in the absence of GERD symptoms postoperatively.

Courtesy of Gerhard Prager

Conclusions

- Sleeve gastrectomy is associated with a substantial increase in GERD, worsening as well as *de novo*
- The reported incidence of Barrett's after sleeve varies, 5-15%
- Roux-en-Y gastric bypass is the procedure of choice when severe reflux and/or Barrett's esophagus

ANNALS OF SURGERY

Tubularized and Effaced Gastric Cardia Mimicking Barrett Esophagus Following Sleeve Gastrectomy: Protocolized Endoscopic and Histological Assessment With High-resolution Manometry Analysis

Johari Y, Budiman K, Catchlove W, Laurie C, Hebbard G, Norden S, Brown WA, Burton P. Ann Surg. 2022 Jul 1;276(1):119-127. doi: 10.1097/SLA.0000000000005493. Epub 2022 May 12.PMID: 35703462

Pathophysiological Mechanisms of Gastro-esophageal Reflux After Sleeve Gastrectomy.

Johari Y, Lim G, Wickremasinghe A, Yue H, Seah J, Ooi G, Playfair J, Laurie C, Beech P, Yap K, Hebbard G, Brown W, Burton P.
Ann Surg. 2022 Nov 1;276(5):e407-e416. doi: 10.1097/SLA.0000000000004637. Epub 2020 Nov

What is the risk when having Barrett’s?

Affects app. 5% of people in the US and app. 1% worldwide

3% to 5% of patients with Barrett esophagus will be diagnosed with esophageal adenocarcinoma in their lifetime.

People with Barrett esophagus have approximately **a 0.2% to 0.5%** annual rate of developing esophageal adenocarcinoma

JAMA. 2022;328(7):663-671. doi:10.1001/jama.2022.13298

Courtesy of Gerhard Prager

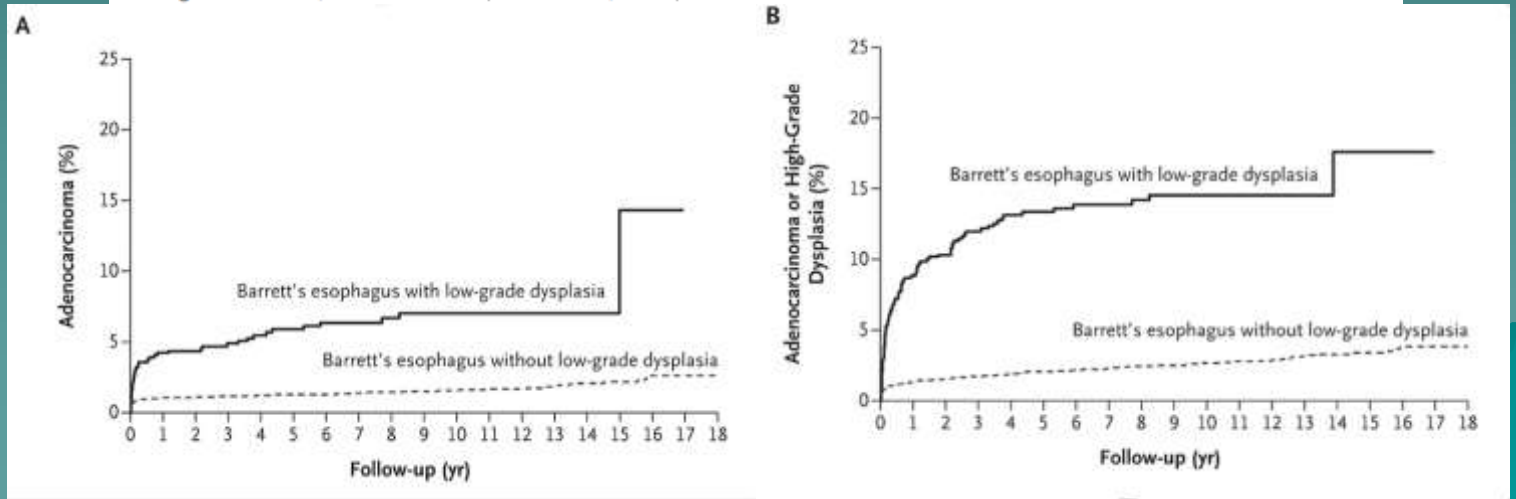
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

Incidence of Adenocarcinoma among Patients with Barrett's Esophagus

Frederik Hvid-Jensen, M.D., Lars Pedersen, Ph.D., Asbjørn Mohr Drewes, M.D., Dr. Med. Sci., Henrik Toft Sørensen, M.D., Dr. Med. Sci., and Peter Funch-Jensen, M.D., Dr. Med. Sci.

N Engl J Med 2011; 365:1375-1383 | October 13, 2011 | DOI: 10.1056/NEJMoa1103042



JAMA. 2022;328(7):663-671. doi:10.1001/jama.2022.13298

Short segment (1-3cm):

A meta-analysis of 4097 patients with Barrett esophagus without dysplasia reported annual rates of progression to esophageal adenocarcinoma of **0.06%**

Long segment (>3cm):
annual rates of progression to esophageal adenocarcinoma of **0.31%**

Courtesy of Gerhard Prager

Scenario – The Devil‘s advocate:

2018: **340.000** Sleeves worldwide – mean age 40 y

After 10 Years (age 50) 10% Barrett‘s Metaplasia (without dysplasia) = **34.000**

0.5% progression rate per year to carcinoma

Another 20 Years (age 70) 10% Barrett‘s Carcinoma

2046: 3.400 patients with Barrett‘s Carcinoma
(680 with 0.1% progression rate)

Courtesy Gerhard Prager

Lessons from the history

ORIGINAL ARTICLE FREE PREVIEW ARCHIVE

Stomach Cancer after Partial Gastrectomy for Benign Ulcer Disease

Göran Lundegårdh, M.D., Hans-Olov Adami, M.D., Charles Helmick, M.D., Matthew Zack, M.D., and Olav Meirik, M.D.

July 28, 1988
N Engl J Med 1988; 319:195-200
DOI: 10.1056/NEJM198807283190402

Risk factors

- Female sex
- Young age
- 20-30 years until revealed

Questions that remain..

- How many will need a surgical revision after sleeve?
- Barrett’s transition, the true incidence after SG?
- Can we preoperatively identify patients at risk?
- How large is the risk for progression to cancer?
- Can we prevent and mitigate?

Is sleeve the new band?..

If the first surgery isn't good for you, we'll do another one.

Wouldn't it better that we do "the other" from the beginning?