ORIGINAL CONTRIBUTIONS

Laparoscopic One Anastomosis Gastric Bypass Versus Laparoscopic Roux-en-Y Gastric Bypass Effects on Pre-existing Mild-to-Moderate Gastroesophageal Reflux Disease in Patients with Obesity: a Randomized Controlled Study

Moheb S. Eskandaros[1] · Alaa Abbass[2] · Mohamed H. Zaid[1] · Ahmed A. Darwish[1]

80 patients, mild to moderate GERD
1:1 randomization OAGB/RYGB

GERD diagnosis: 20-item questionnaire
upper endoscopy
24-h pH monitoring & manometry.

Follow-up at 6 and 12 months

Obesity Surgery (2021) 31:4673–4681

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arwish[1]

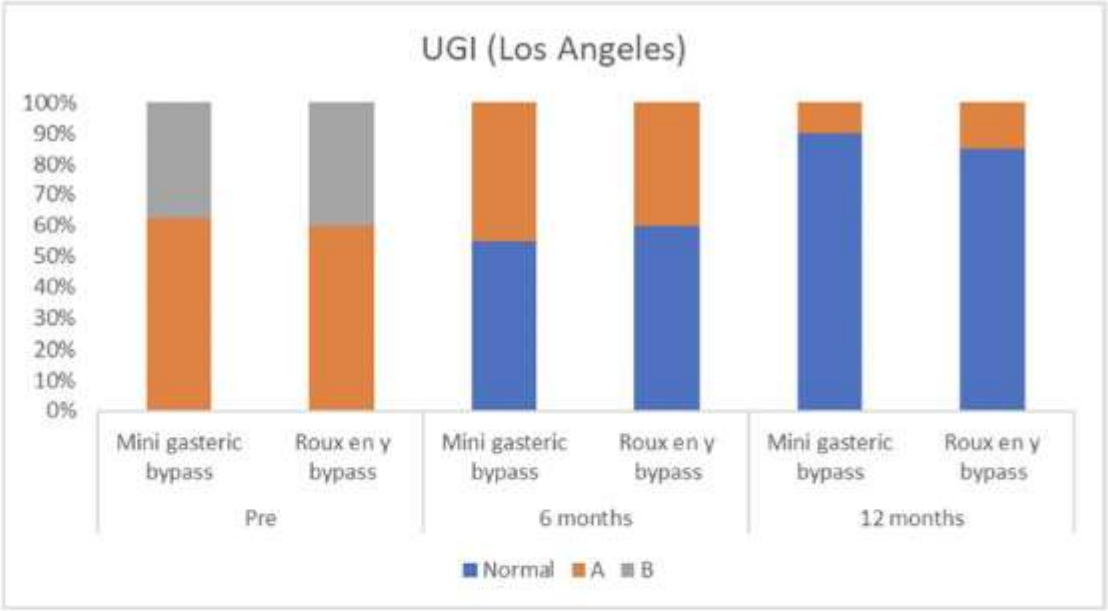

Fig. 2 Graphic representation of upper GI results for patients preoperatively, at 6 and 12 months postoperatively

Table 6 %TEAE for patients preoperatively, at 6 and 12 months postoperatively

Total esophageal acid exposure (%)		OAGB		RYGB		*t* test	
		Mean	SD	Mean	SD	*T*	*p* value
Pre		7.96	0.73	8.05	0.79	−0.5	0.617
6 months		4.07	0.41	4.06	0.55	0.07	0.945
12 months		3.24	0.40	3.27	0.59	−0.29	0.773
Repeated measure ANOVA	*F*	2961.24		4996.87			
	p value	*<0.001*		*<0.001*			

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OAGB had less operative time and fewer complications

Both procedures had comparable favorable effects in reducing the GERD symptoms
(evidenced by upper endoscopy, 24-h pH monitoring, and manometry)

OAGB: Easier technique, less operative time, and fewer complications

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Functional testing in OAGB

ORIGINAL ARTICLE

Esophageal function and non-acid reflux evaluated by impedance-24 h-pH-metry, high-resolution manometry, and gastroscopy after one-anastomosis gastric bypass—outcomes of a prospective mid-term study

D. M. Felsenreich · M. L. Zach · N. Vock · J. Jedamzik · J. Eichelter · M. Mairinger · L. Gensthaler · L. Nixdorf · P. Richwien · C. Bichler · I. Kristo · F. B. Langer · G. Prager

24h-pH-metry:

All patients			
	Basis OAGB ($n=21$)	Follow-up ($n=21$)	p-value
Manometry			
LESP (mmHg) (10-35 mmHg)	25.5 ± 10.7	28.0 ± 15.6	0.576
Time liquid bolus (s) (< 12 s)	7.2 ± 1.8	4.7 ± 2.2	**0.001**
IRP (mmHg) (< 15 mmHg)	13.6 ± 4.5	11.5 ± 5.8	0.244
DCI (mmHg-cm-s) (450—8000 mmHg-cm-s)	2546.6 ± 1929.5	1410.7 ± 923.9	**0.036**
Impedance-24 h-pH-metry			
Acid exposure time (% of 24 h) (normal < 4.2%)	4.1 ± 3.9	1.2 ± 1.2	**0.004**
Total number of refluxes (normal < 40)	52.1 ± 20.8	58.2 ± 32.1	0.479
Number non-acid refluxes	24.0 ± 15.2	48.0 ± 29.4	**0.003**
Number acid refluxes	28.1 ± 19.4	10.2 ± 8.7	**0.001**
DeMeester score (normal 14.72)	17.5 ± 15.7	7.5 ± 8.9	**0.017**

OAGB one-anastomosis gastric bypass; *HRM* high-resolution manometry; *LESP* lower esophageal sphincter pressure; *IRP* integrated relaxation pressure; *DCI* distal contractile integral; *s* seconds

Felsenreich D.M. et al., Surg Endo 2023

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Felsenreich D.M. et al., Surg Endo 2023

May 10, 2023

Long-term Safety and Efficacy of Closure of Mesenteric Defects in Laparoscopic Gastric Bypass Surgery

A Randomized Clinical Trial

Erik Stenberg, MD[1]; Johan Ottosson, MD[1]; Anders Magnuson, BSc[2]; et al

» Author Affiliations

JAMA Surg. 2023;158(7):709-717. doi:10.1001/jamasurg.2023.1042

Over a median follow-up of 10 years SBO:

nonclosure 14.9%

with closure 7.8%

Stenberg: „The majority of all internal hernias were located beneath the J-J anastomosis, while about 1/3 were located in Petersen space.

JAMA Surg. 2023;158(7):709-717

GERD and OAGB

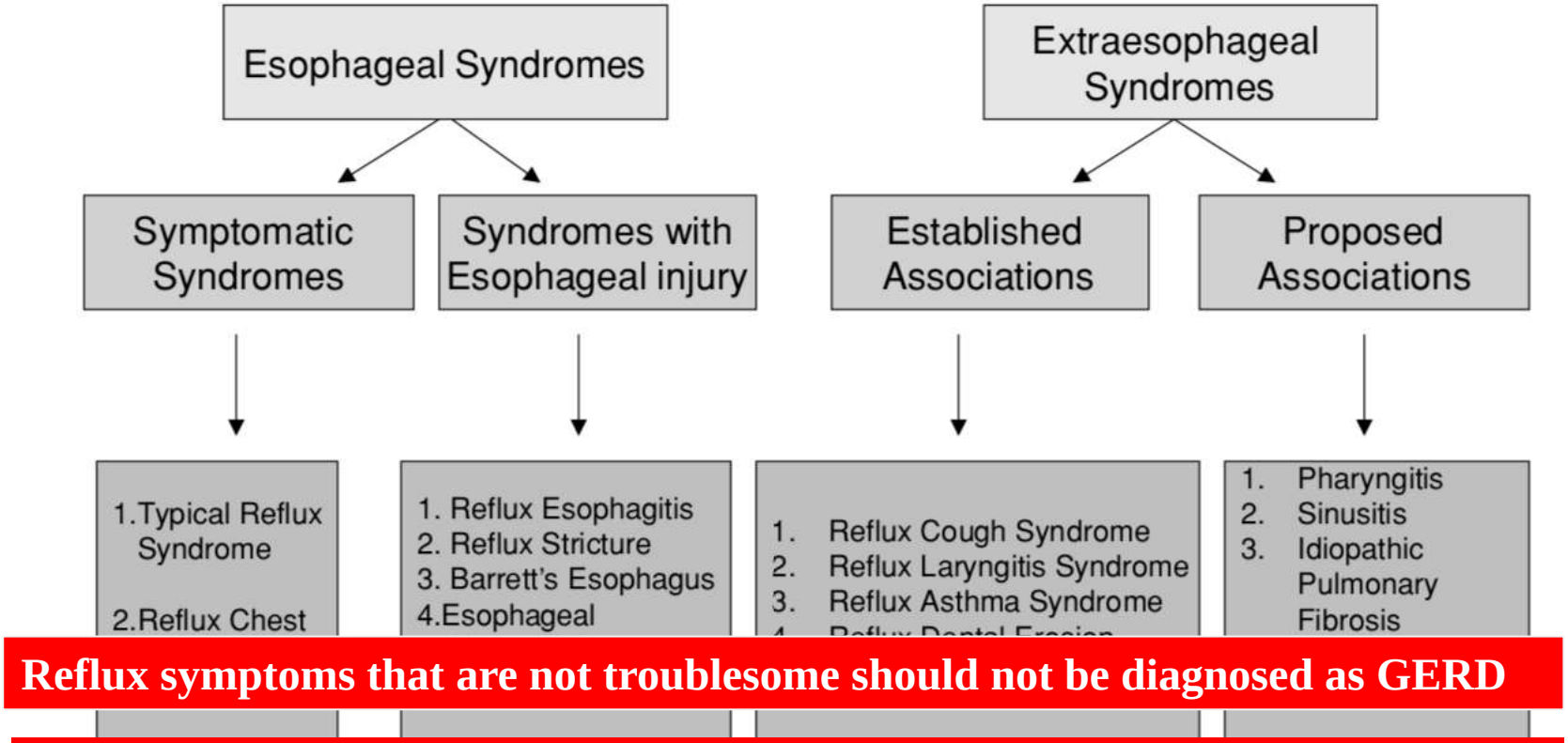
Gerhard Prager, MD

Prof. of Bariatric & Metabolic Surgery
University Clinic Vienna, Dept. of Bariatric and Metabolic surgery

Definition of GERD

"GERD, *as defined by the Montreal Classification*, is the reflux of stomach contents that leads to symptoms of heartburn and regurgitation."

Naik et al., Gastroent and Hepatology 2015

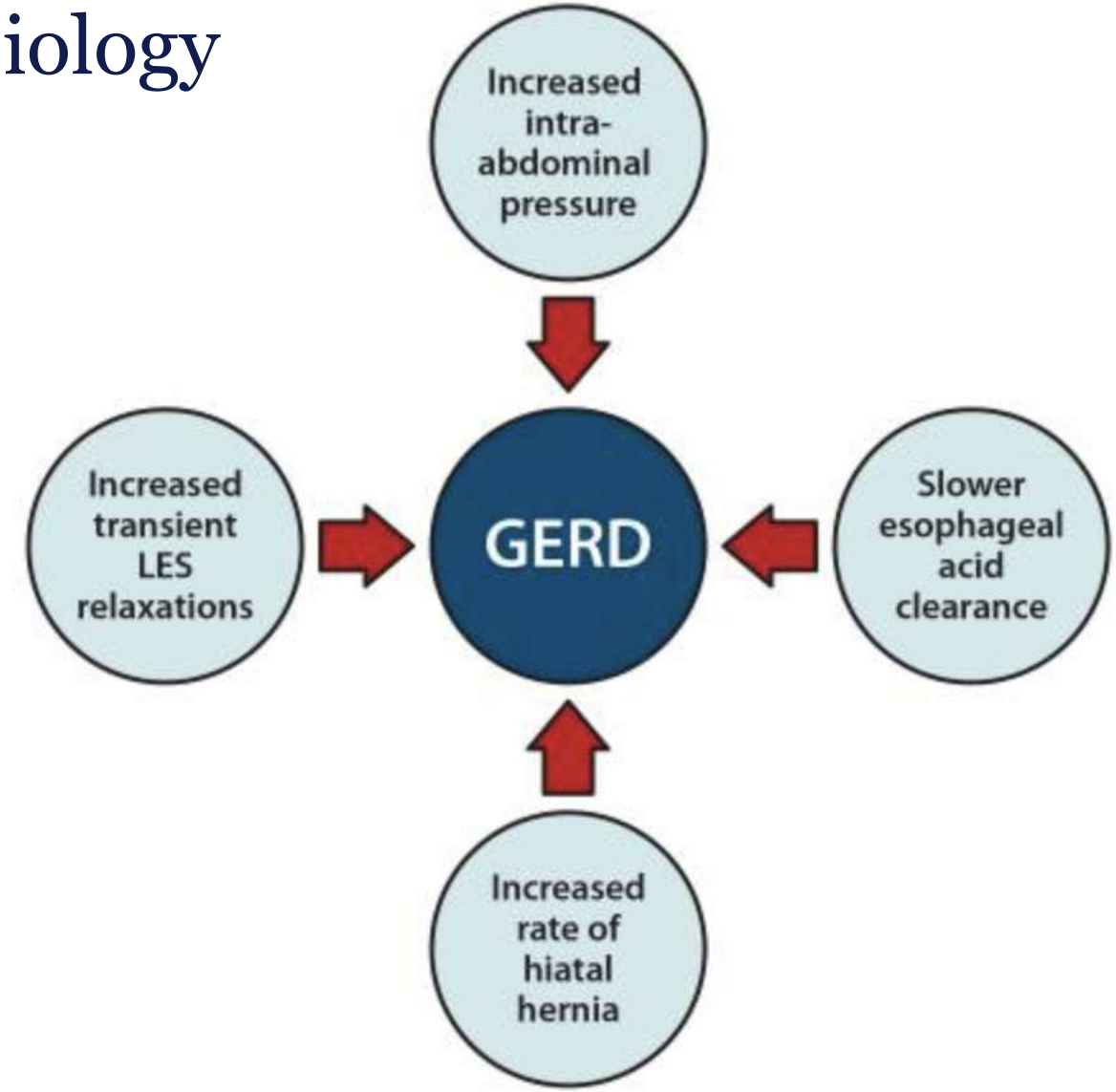


Reflux symptoms that are not troublesome should not be diagnosed as GERD

In population-based studies, mild symptoms occurring 2 or more days a week, or moderate/severe symptoms occurring more than 1 day a week, are often considered troublesome by patients

Vakil et al., Am J Gastroenterology 2006

Pathophysiology



Naik et al., Gastroent and Hepatology 2015

How to diagnose GERD

- Clinical anamnesis (expert: 70% sensitivity, 65% specificity)
- PPI trial (70% sensitivity, 44% specificity)
- Upper GI Endoscopy
- 24h (48h, 96h) pH-impedance monitoring
- oesophageal high-resolution manometry

Gyawali et al, Gut 2018

GERD: Risk factors

- Old age
- Sex
- Obesity (Pregnancy)
- Hiatal hernia
- Genetic factors
- Lifestyle factors (alcohol, fatty food, smoking)
- Medication (e.g. Aspirin)

…

Richter et al, Gastroenterology 2018

GERD: Influence of risk factors by OAGB

- Positive changes: Weight loss!
- Negative changes: Change in “anti-reflux anatomy” (Angle of His, Fundus), possible injury of vagal nerve