

# 15-20-year results of laparoscopic Roux-en-Y gastric bypass



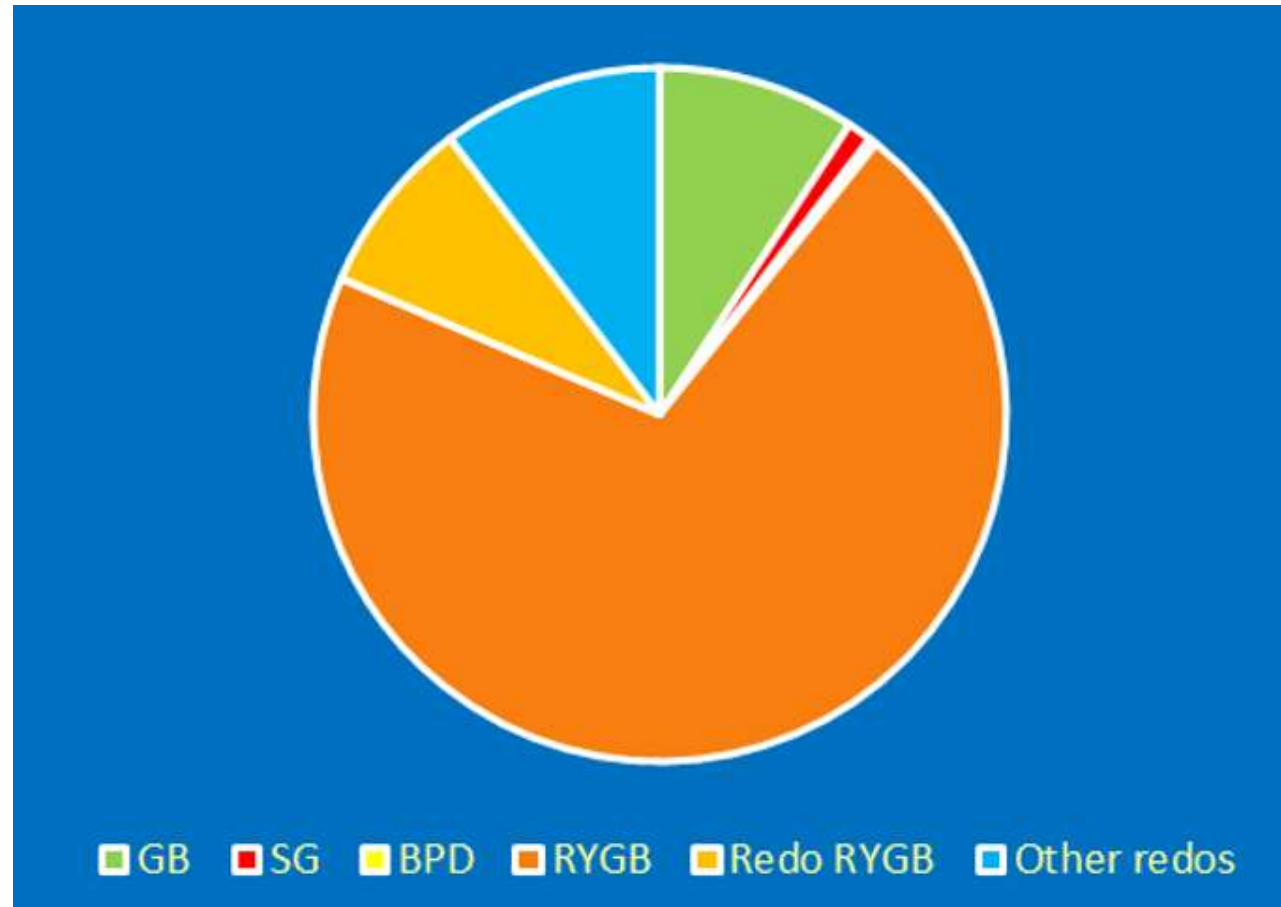
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# Nothing to disclose

## CASE MIX 1995 - 2022



# 15-20-year results of laparoscopic Roux-en-Y gastric bypass


ANNALS  
OF  
SURGERY

## Roux-en-Y Gastric Bypass

Ten-year Results in a Cohort of 658 Patients

Céline Duvoisin, MD,\* Lucie Favre, MD,† Pierre Allemann, MD, PD,\* Pierre Fournier, MD,\*  
Nicolas Demartines, MD,\* and Michel Suter, MD\*‡

658 patients

78,3% (515) 

Mean age 40,2±10,4 years

Mean BMI 44,7±6,8 kg/m<sup>2</sup>

FU @ 10 years : 90,6%

- Mean BWL 28,7 %
- BWL > 20% 80,3 %
- BMI < 35kg/ m<sup>2</sup> 72,8 %
- 80% resolution/improvement metabolic comorbidities

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Author	Year	% FU	BWL > 20%	T2D resolution	HTN resolution	DL resolution	Complications
Adams 12 y	2018	> 90% 388/418	70%	51%	36%	HDL 82% LDL 59% TG 94%	
Angrisani 15 y	2021	87,6% 85/105	74,1%	50%	61,1%	58,3%	Early 3,8% Late 9,5%

## Weight and Metabolic Outcomes 12 Years after Gastric Bypass.

Adams TD, Davidson LE, Hunt SC.



The NEW ENGLAND  
JOURNAL of MEDICINE

## Long-term results of laparoscopic Roux-en-Y gastric bypass for morbid obesity: 105 patients with minimum follow-up of 15 years.

Angrisani L, Ferraro L, Santonicola A, Palma R, Formisano G, Iovino P.



SURGERY FOR OBESITY  
AND RELATED DISEASES

# 15-20-year results of laparoscopic Roux-en-Y gastric bypass

## Aim

- Report 15-year results and beyond in a large group of patients

**Weight loss**  
**Metabolic profile**  
**Long-term complications**

# 15-20-year results of laparoscopic Roux-en-Y gastric bypass

## Methods


- Period: 01.1999 and 12.2007 → **951 patients**
- 2 referral bariatric centers with one common surgeon
- All except 2 patients with retro-colic/ retro-gastric bypass
- 21-mm circular gastrojejunostomy
- In-person visits for most patients
- Electronic medical records, phone calls to the patient and/or general practitioner



# 15-20-year results of laparoscopic Roux-en-Y gastric bypass

## Results

**951 patients**

77,6% (738) 

Mean age 40,4±10,7 years

Mean BMI 44,7±6,8 kg/m<sup>2</sup>

**FU rates :**

- 90,6 % @ 10 years
- 74,4 % @ 15 years
- 59,0 % @20 years

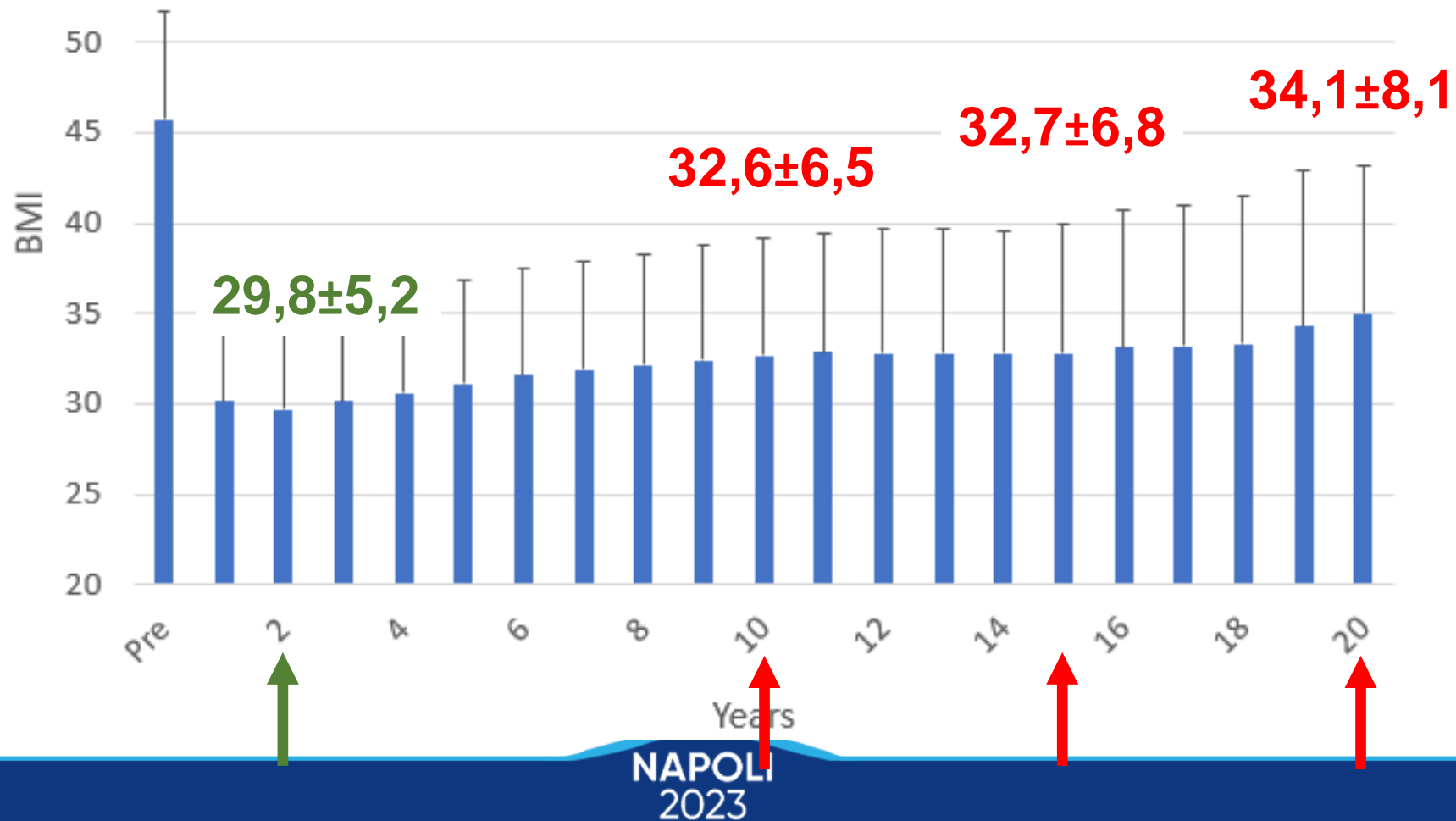
\*Lost from FU: not seen for > 12 months before given time point and not seen later on either

**51 (5,4%) patients died during the first 15 post-operative years**

- 1 early postoperative complication related to RYGB
- 50 other causes

# 15-20-year results of laparoscopic Roux-en-Y gastric bypass

## BMI (Primary and Redo Operations)

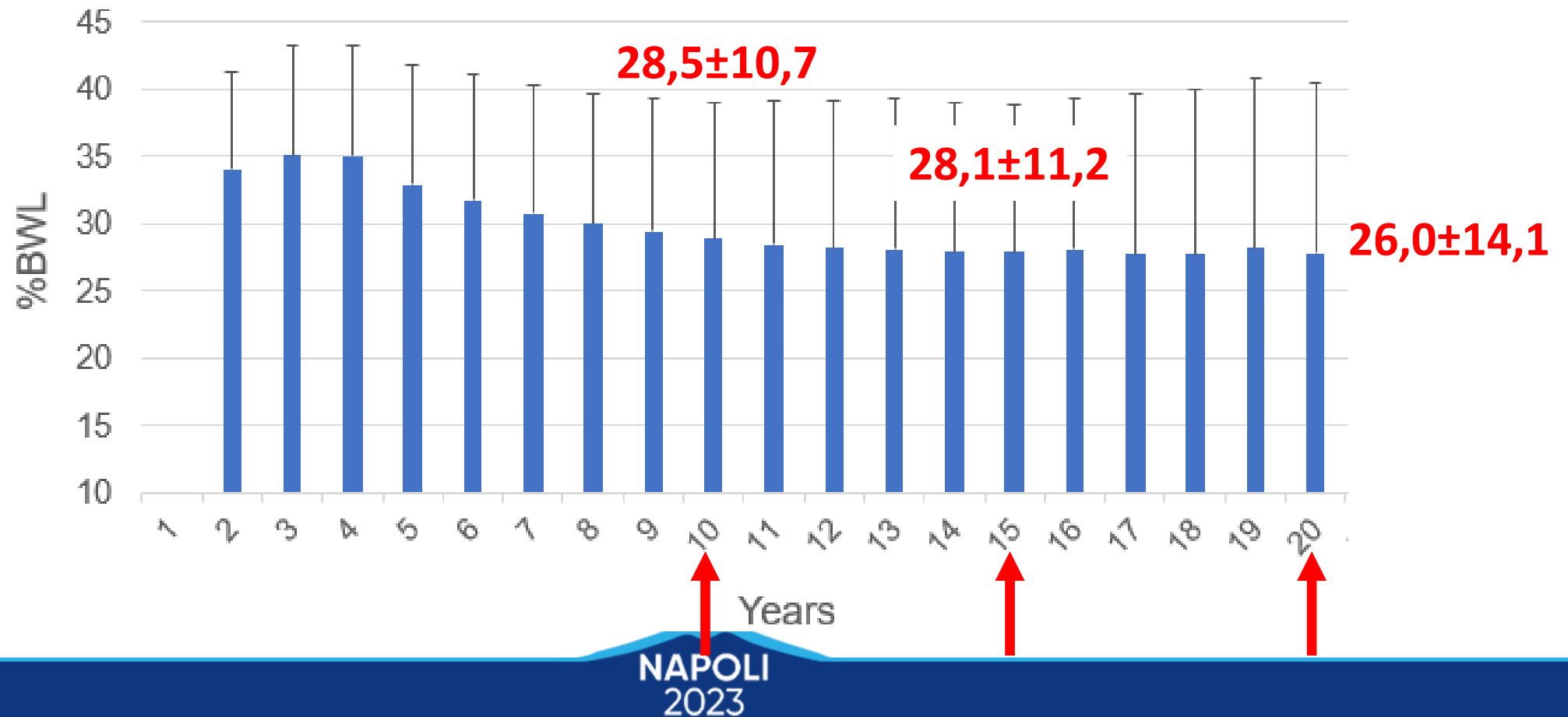




# 15-20-year results of laparoscopic

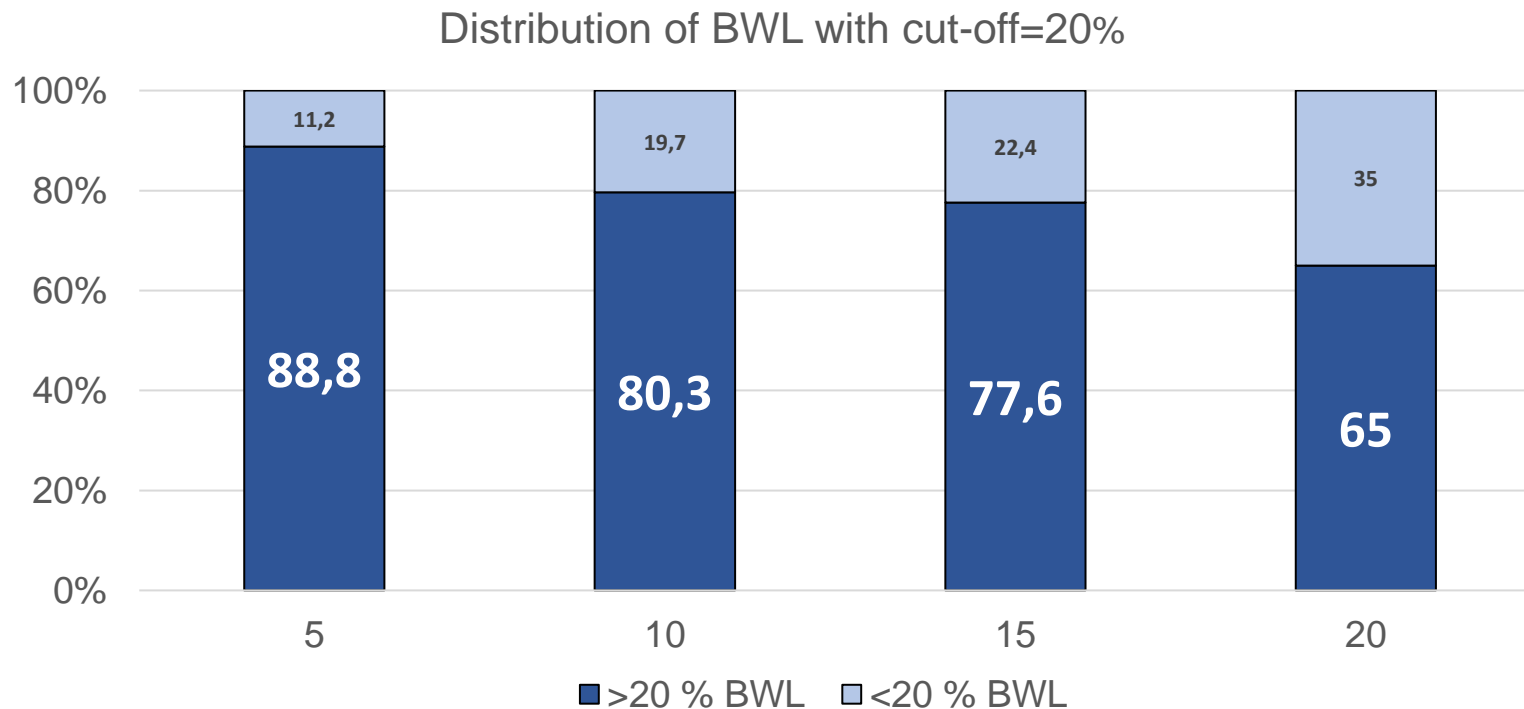
## Roux-en-Y gastric bypass

### % BWL in Primary Operations



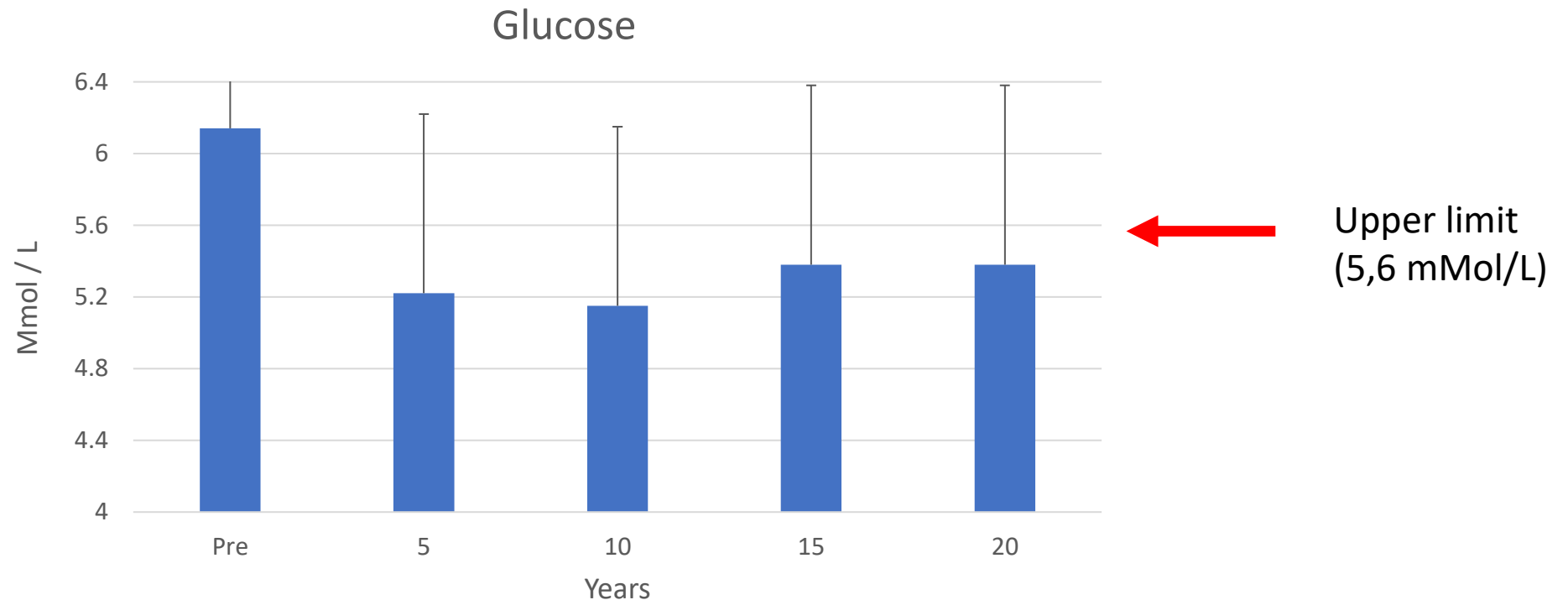
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## % BWL



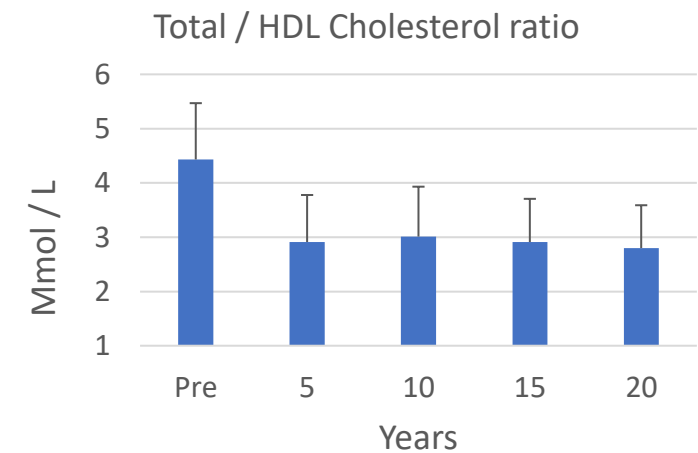
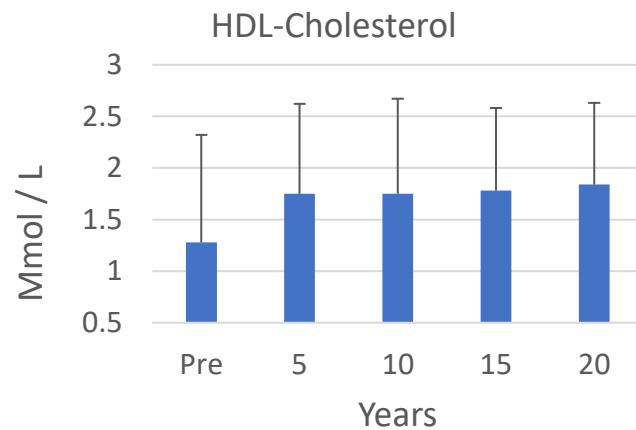
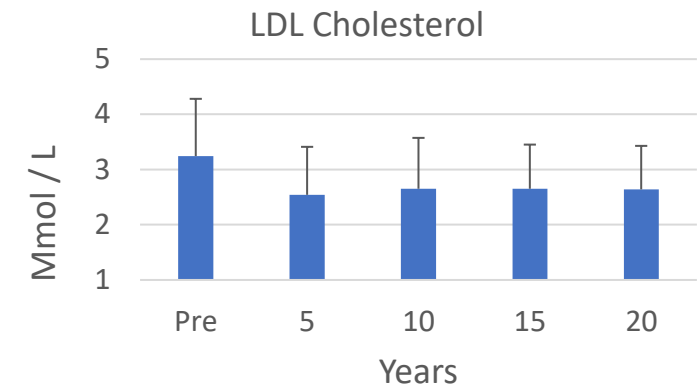
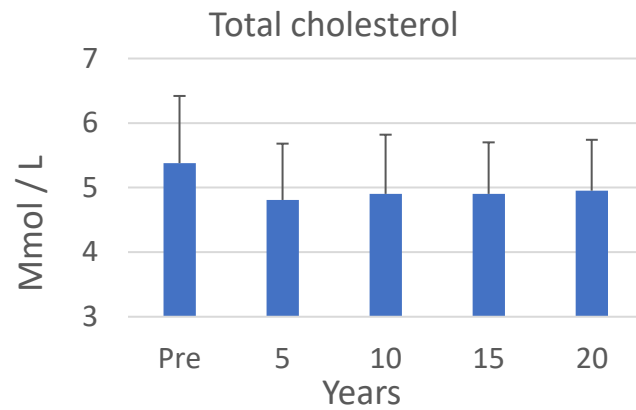
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# 15-20-year results of laparoscopic Roux-en-Y gastric bypass Metabolic profile: Glycemia



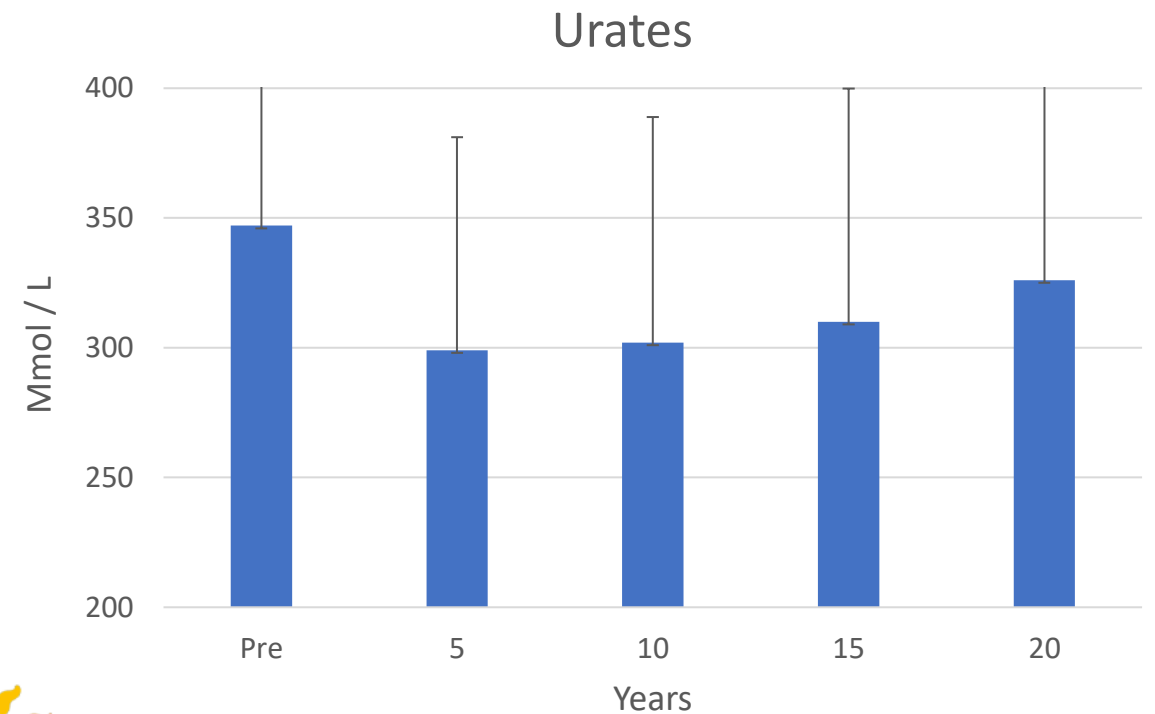
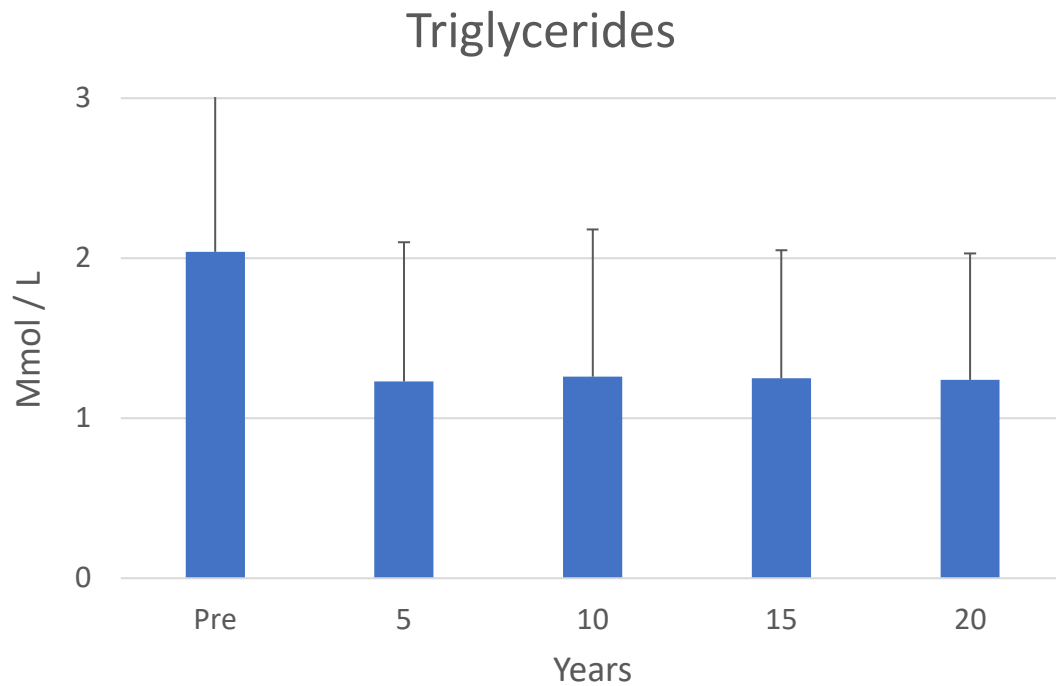
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## Metabolic profile: Cholesterol



# 15-20-year results of laparoscopic Roux-en-Y gastric bypass

## Metabolic profile: Triglycerides & Urates



# 15-20-year results of laparoscopic Roux-en-Y gastric bypass

## Long-term complications

Type of complication	N° pt	%
Internal hernia	86	9 %
Marginal ulcer	16	1,7 %
Bowel obstruction	56	5,9 %
Anastomotic stricture at GSJ	44	4,6 %
Candy cane syndrome	8	0,8 %
Late hiatus hernia	5	0,5 %
Adhesions / band	21	2,2 %
Recurrent abdominal pain	48	5 %
Intussusception	4	0,4 %
Incisional hernia	11	1,1 %
Superior mesenteric vein thrombosis	1	0,1 %

Type of complication	N° pt	%
Gayet-Wernicke encephalopathy	1	0,1 %
Gallbladder stones	3	0,3 %
Common bile duct stones	1	0,1 %
Myopathy attributed to malnutrition	1	0,1 %
Torsion of the alimentary limb	1	0,1 %
Liver failure (after distalisation)	1	0,1 %
Perforated ulcer in excluded stomach	1	0,1 %
Total patients reoperated	151	15,8 %
Total patients with at least one long-term complication	199	20,9 %

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## Conclusion

- RYGB provides very acceptable long-term weight loss and improvement of metabolic profile despite slight worsening over time
  - RYGB has a favorable early and late safety profile
- BMI remains higher in patients with higher preoperative BMI
- RYGB is a valuable and very efficient bariatric procedure for most surgical candidates

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**Thank you for your attention**

