
IFSO
International Federation for the Surgery of Obesity and Metabolic Disorders
S.I.C.OB.
Italian Society of Bariatric and Metabolic Surgery
IFSO
NAPOLI
2023
OAGB vs Sleeve Gastrectomy
Luigi Piazza
XXVI IFSO WORLD CONGRESS
OF BARIATRIC & METABOLIC SURGERY
NAPLES, ITALY
AUGUST 30 - SEPTEMBER 1, 2023

Topics

So Far..

The Mini-Gastric Bypass: Experience with the First 1,274 Cases

Robert Rutledge

"The MGB is a reasonable laparoscopic operation, with comparatively favorable results thus far, and appears to meet many of the criteria of an ideal weight loss operation"

Continued Excellent Results with the Mini-Gastric Bypass: Six-Year Study in 2, 410 Patiens

Robert Rutledge; Thomas R. Walsh,

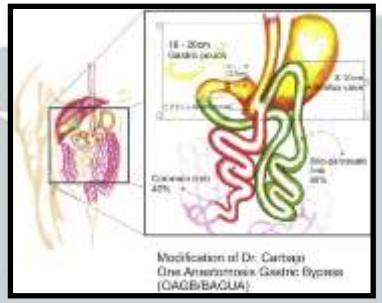
Obesity Surgery, 2001

Obesity Surgery, 2005

So Far..

One-anastomosis gastric bypass by laparoscopy: results of the first 209 patients

Carbajo M, García-Caballero M, Toledano M, et al.



"OAGB is a simple, safe and effective operation with less perioperative risk than conventional gastric bypass, quicker return to normal activities, and better quality of life"

Laparoscopic one-anastomosis gastric bypass: technique, results and long-term follow-up in 1200 patients

Carbajo MA, Luque-de-León E, Jimenez JM, et al.

Obes Surg, 2005

Obes Surg, 2017

So Far..

Mini Gastric Bypass-One Anastomosis Gastric Bypass (MGB-OAGB)-IFSO Position Statement
Maurizio De Luca, Tiffany Tie, Geraldine Ooi, Kelvin Higa et al.

Obes Surg, 2018

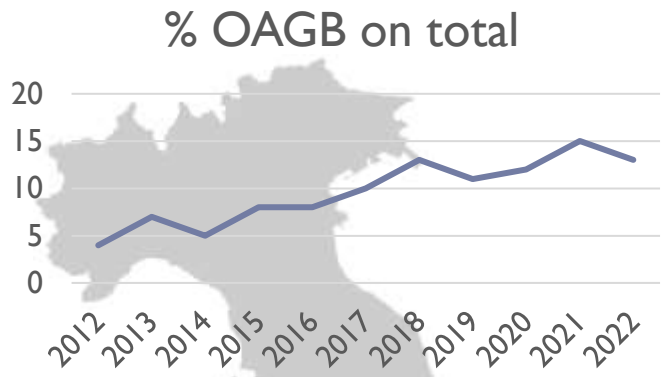
"OAGB should be the identifier for this procedure in future publications"

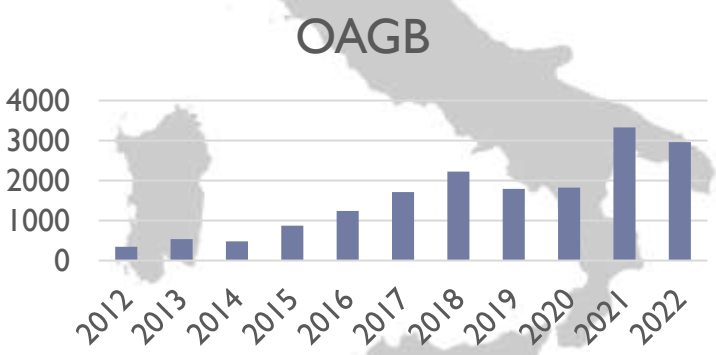
"OAGB is a recognised bariatric/metabolic procedure and should not be considered investigational"

IFSO Update Position Statement on One Anastomosis Gastric Bypass (OAGB)
De Luca M, Piatto G, Merola G, Kelvin Higa et al

Obes Surg, 2021

OAGB Trend

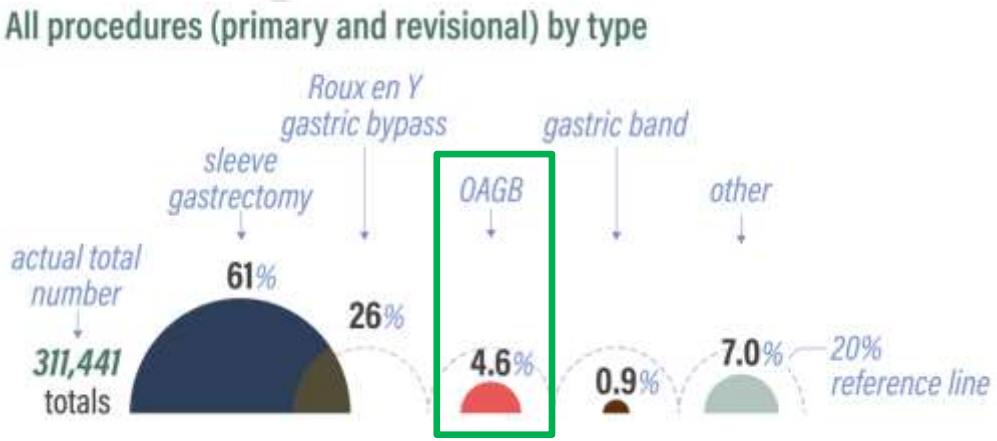




Second most performed bariatric procedure in Italy

7th IFSO Global Registry Report 2022

Third most performed bariatric procedure Worldwide



Topics

One Anastomosis Gastric Bypass Versus Sleeve Gastrectomy for Obesity: a Systemic Review and Meta-analysis

In this meta-analysis, we suggest that the **OAGB** bariatric surgical procedure has a **significantly superior quality of life after weight loss compared to SG**, which is sufficient to be offered collectively in a large statistical way. The results showed that **OAGB led to a statistically significant better %EWL than SG in the first 5 years**

In terms of **comorbidity remission, OAGB** is more effective than SG, although **postoperative consequences are rather comparable between the two procedures**

Ali et al., Journal of Gastrointestinal Surgery 2023

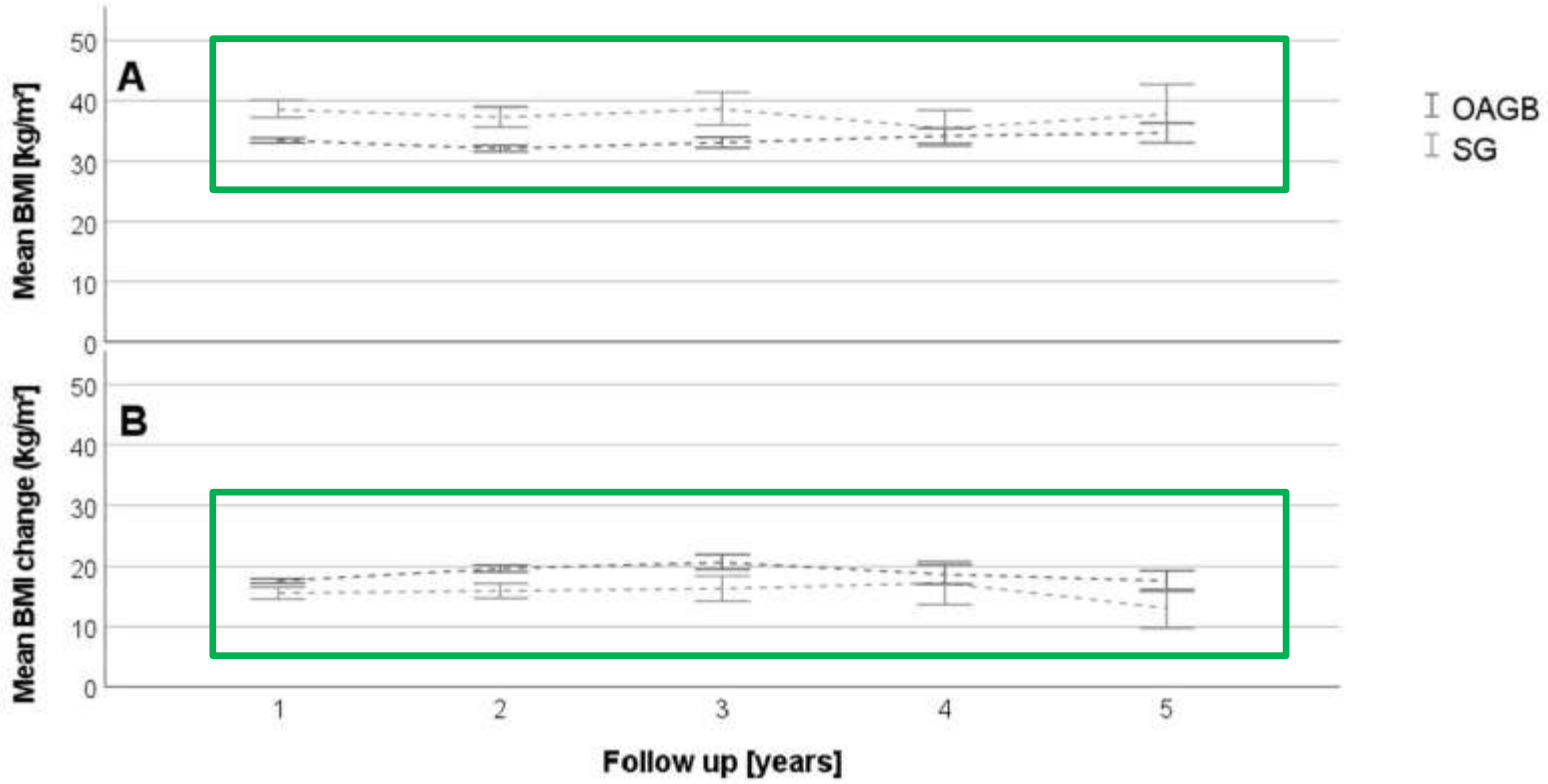
One Anastomosis Gastric Bypass Versus Sleeve Gastrectomy for Obesity: a Systemic Review and Meta-analysis

OAGB was associated with a **lower rate of remission** in dyslipidemia, hypertension, diabetes mellitus, and hemorrhage, while **increased the incidence of GERD and leakage**.

However as the result shows, we found that the majority of study trials **did not produce statistically significant results**

Ali et al., Journal of Gastrointestinal Surgery 2023

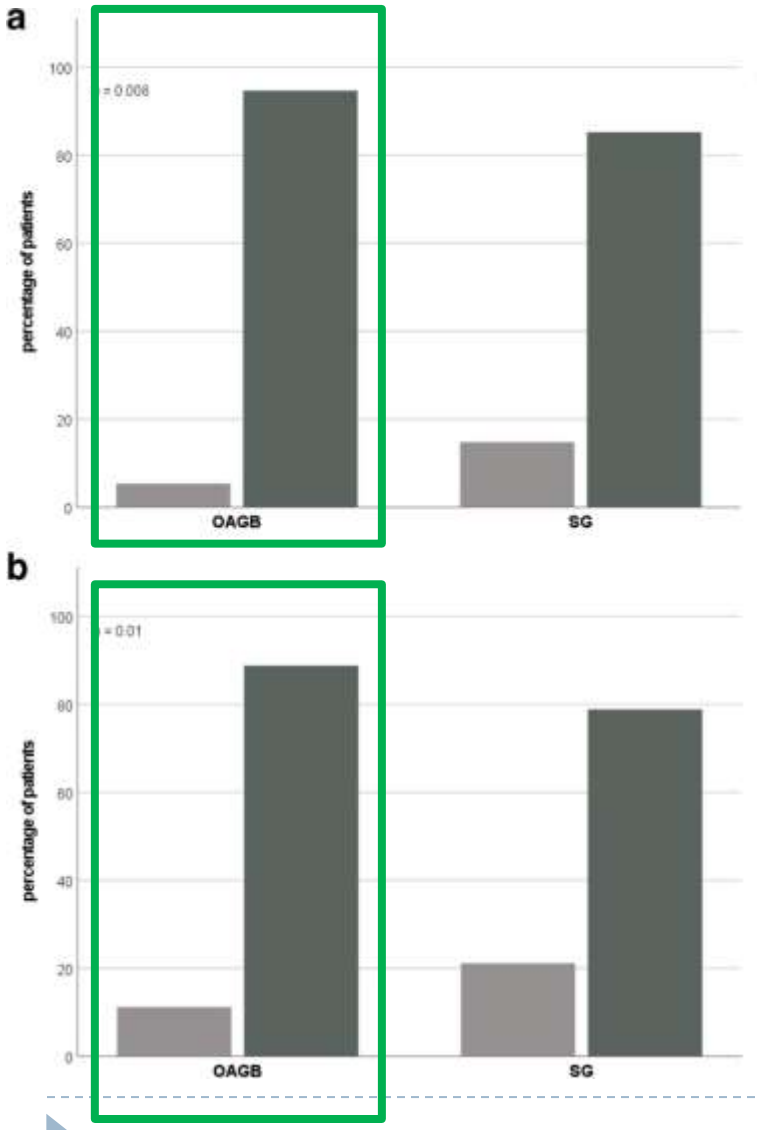
A Long-Term Comparative Study Between One Anastomosis Gastric Bypass and Sleeve Gastrectomy

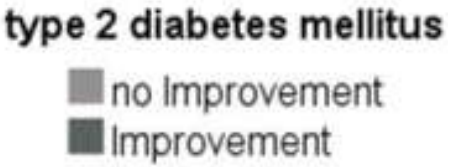


Applying the linear mixed model including the follow-up data of up to 5 years, it could be predicted that **patients with OAGB were able to reach a lower BMI and a higher change in BMI**, respectively.
However, our model **could not predict significant differences regarding %TBWL and %EWL** between both procedures

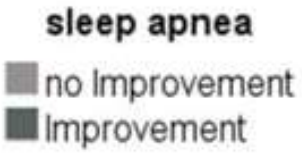
Plamper et al., Journal of Gastrointestinal Surgery 2023

A Long-Term Comparative Study Between One Anastomosis Gastric Bypass and Sleeve Gastrectomy





OAGB patients showed at 5 years follow-up a **higher resolution of T2DM and sleep apnea**



Plamper et al., Journal of Gastrointestinal Surgery 2023

A Long-Term Comparative Study Between One Anastomosis Gastric Bypass and Sleeve Gastrectomy

Table 3 Postoperative complications

	Total	OAGB	SG	*p* value
Leakage	19	11 (1.2%)	8 (3.3%)	0.040
Hemorrhage	29	26 (2.8%)	3 (1.3%)	0.244
SSI	7	4 (0.4%)	3 (1.2%)	0.164
Stenosis	12	8 (0.9%)	4 (1.7%)	0.125
Ulcer	74	70 (7.7%)	4 (1.7%)	0.001
IWL/WR	120	58 (6.4%)	62 (25.7%)	< 0.001
Reflux	119	76 (8.3%)	43 (17.8%)	< 0.001
ND	211	182 (20.0%)	29 (12.0%)	0.005

The **OAGB total reflux rate** over the observed time period proved to be **significantly lower than in our SG group**. It is notable that the **incidence of patients requiring surgery** for conservatively **untreatable reflux was even lower after OAGB** compared to SG. These findings are in accordance with other studies

Our analysis **showed comparably low overall complication rates for both procedures** and is concordant with the literature

The total **Nutritional Deficiencies rate was higher in the OAGB** group and stresses the malabsorptive effect of this procedure

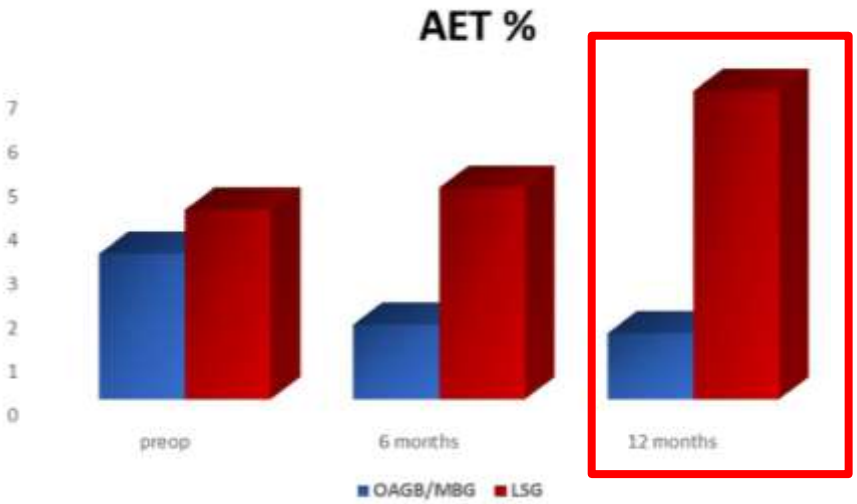
Table 2 Perioperative data, total operations $N = 1152$

	OAGB ($N = 911$)	SG ($N = 241$)	*p* value
Duration of procedure (min)	77 ± 19	94 ± 31	< 0.001
Duration of stay (days)	4 ± 3	7 ± 13	< 0.001
Postoperative complications, Clavien-Dindo (*n*, %)			
Grade I	89 (9.8%)	26 (10.8%)	0.090
Grade II	18 (2.0%)	6 (2.5%)	
Grade III	24 (2.6%)	11 (4.6%)	
Grade IV	15 (1.6%)	7 (2.9%)	
Grade V	1 (0.1%)	2 (0.8%)	

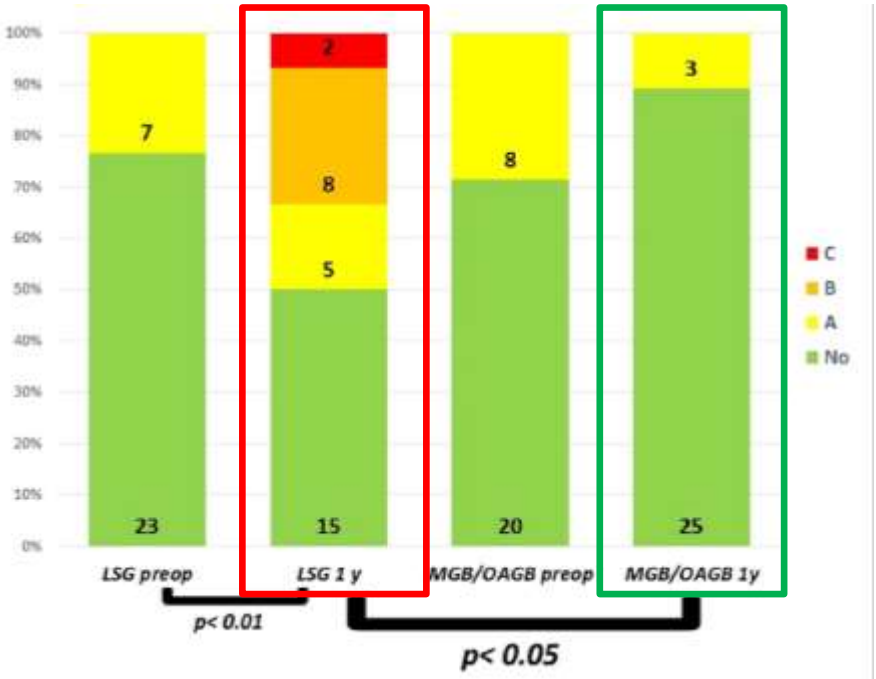
Values are mean ± standard deviation, unless indicated otherwise

Plamper et al., Journal of Gastrointestinal Surgery 2023

Evaluation of reflux following sleeve gastrectomy and one anastomosis gastric bypass: 1-year results from a randomized open-label controlled trial



Endoscopic findings showed a **significant increase of esophagitis ≥ B in the LSG group after 1 year**; **postoperative esophagitis ≥ B resulted also significantly worsened after LSG** when compared to MGB/OAGB



Comparing MII-pH outcomes of the two groups, **Acid Exposure Time % resulted significantly higher after LSG at 12 months**, while LES tone was significantly higher at 6 months but not at 12 months

Musella et al., Surgical Endoscopy 2021

One Anastomosis Gastric Bypass Compared with Sleeve Gastrectomy in Elderly Patients: Safety and Long-term Outcomes

	OAGB ($n=41$)	SG ($n=83$)	P value
Total 30-day complications, n (%)	3 (7.3%)	6 (7.2%)	0.98
Staple line/anastomotic leak, n (%)	1 (2.4%)	0 (0%)	0.15
Bleeding, n (%)	1 (2.4%)	3 (3.6%)	0.73
Obstruction, n (%)	0 (0%)	1 (1.2%)	0.48
Respiratory, n (%)	0 (0%)	0 (0%)	-
VTE, n (%)	0 (0%)	0 (0%)	-
Fluid collection/hematoma, n (%)	1 (2.4%)	2 (2.4%)	0.99
Reoperation, n (%)	1 (2.4%)	3 (3.6%)	0.73
Clavien-Dindo ≥ 3, n (%)	1 (2.4%)	3 (3.6%)	0.73
Mortality, n (%)	0 (0%)	1 (1.2%)*	0.48
LOS, days, mean $\pm$ SD	2.6 $\pm$ 1.7	4.1 $\pm$ 1.9	<0.001
30-day readmission, n (%)	0 (0%)	3 (3.6%)	0.22
Resolution of T2D, n (%)	13/15 (86.6%)	11/37 (29.7%)	<0.001
Preoperative Hba1c, %, mean $\pm$ SD	7.27 $\pm$ 1.81	8.36 $\pm$ 6.26	0.52
Postoperative Hba1c, %, mean $\pm$ SD	5.91 $\pm$ 0.58	6.32 $\pm$ 0.58	0.06
Resolution of HTN, n (%)	11/15 (73.3%)	16/44 (36.3%)	0.01
Resolution of HL, n (%)	11/13 (84.6%)	19/31 (61.2%)	0.13
Resolution of OSA, n (%)	6/6 (100%)	12/18 (66.6%)	0.11
Resolution of NAFLD, n (%)	12/14 (85.7%)	41/54 (75.9%)	0.43
Resolution of osteoarthritis, n (%)	2/2 (100%)	7/8 (62.5%)	0.64

OAGB in the **elderly** is safe and achieves excellent sustainable weight reduction with resolution of obesity-associated medical problems. **OAGB seems to be superior to SG**, as it results in **better weight reduction and resolution of T2D and HTN**. It is also **non-inferior** to SG in terms of **safety**

Dayan et al., Obesity Surgery2023

Laparoscopic Sleeve Gastrectomy Versus One Anastomosis Gastric Bypass in Adolescents With Obesity

Conclusions:

Both surgeries are effective and safe for weight loss in the adolescent population. OAGB was associated with significantly fewer GI symptoms compared to LSG.

differences in age, sex, and body mass index score. A low rate of perioperative (5.7% vs 0) and postoperative complication (15.1% vs 10%) with no statistical differences between LSG and OAGB group, respectively, was noted. At 12 months, the percent excessive weight loss + IQR was 42.40% [30.00, 45.00] and 38.00% [33.550, 44.20] in the LSG and OAGB group, respectively (P = NS). The results of the Pediatric Quality of Life Inventory Gastrointestinal Symptoms scale revealed significantly less food limitation and heartburn after OAGB compared to LSG (food limitation 71.63 vs 53.85 and heartburn 83.654 vs 61.6, $P = 0.03$ and $P = 0.029$, respectively).

Sorek et al., Journal of Pediatric Gastroenterology and Nutrition 2023

Topics

Department of General and Emergency Surgery

SICOB
Società Italiana di Chirurgia dell'OBesità e malattie metaboliche

ARNAS Garibaldi Catania

ARNAS GARIBALDI CATANIA
AZIENDA OSPEDALIERA DI RILIEVO NAZIONALE E DI ALTA SPECIALIZZAZIONE

So far..

TIPO DI INTERVENTO	CASISTICA	MASCHI	FEMMINE	ETA'		
				Media	Min	Max
Bendaggio gastrico	243	34	209	37,77	17	65
By pass gastrico	177	62	115	39,31	18	71
By pass biliointestinale				0,00	0	0
Pallone intragastrico				48,00	48	48
Diversione biliopancr.				39,31	15	63
Gastroplastica verticale				38,00	24	47
Sleeve gastrectomy	854	249	605	40,85	15	71
Super Magenstrasse	1	1	0	43,47	13	76
Plicatura gastrica	4	1	3	46,25	36	75
Mini gastric bypass	861	259	602	43,47	13	76
TOTALI	**2.250**	**653**	**1.597**			

Sleeve Gastrectomy 37,95%

OAGB 38,26%

Registro Nazionale SICOB 2023

Sleeve Gastrectomy

FOLLOW UP	NUMERO CASI	PESO			BMI			EWL		
		MED	MIN	MAX	MED	MIN	MAX	MED	MIN	MAX
Ricovero	854	118,87	78,00	197,00	43,61	30,47	131,49			
3 mesi	221	100,89	60,00	156,00	37,19	23,44	60,09	28,18	-6,23	82,69
6				,00	35,16	21,60	70,86	37,89	-37,04	104,27
12				,00	30,00	20,03	49,15	60,07	-13,01	109,52
18				,00	27,92	22,55	39,44	69,71	-14,15	95,90
2				,00	28,10	18,33	48,84	69,10	-7,92	117,86
3				,00	29,65	20,06	50,71	60,05	-53,76	113,04
4 anni	31	84,06	58,00	135,00	30,54	22,46	54,77	54,60	-75,27	100,00
5 anni	228	72,32	50,00	150,00	26,67	21,30	60,85	75,72	-107,53	109,38

OAGB at 5 years achieved a better EWL%

One Anastomosis Gastric Bypass

FOLLOW UP	NUMERO CASI	PESO			BMI			EWL		
		MED	MIN	MAX	MED	MIN	MAX	MED	MIN	MAX
Ricovero	861	126,26	53,00	210,00	46,56	19,95	130,80			
3				,00	39,77	27,40	57,67	31,02	8,72	54,96
6				,00	37,60	21,56	84,75	36,62	-18,71	96,97
12				,00	31,72	19,78	79,00	59,38	-10,60	112,68
18				,00	28,82	22,86	41,52	71,22	15,38	98,44
2				,00	28,11	19,78	43,28	73,47	-0,91	112,68
3				,00	29,16	20,83	44,08	69,49	-0,94	104,65
4				,00	29,49	19,92	45,91	68,61	-18,35	109,76
5 anni	282	74,16	52,00	150,00	27,31	19,33	55,10	76,20	19,86	109,80

Change in BMI was similar between the two procedures

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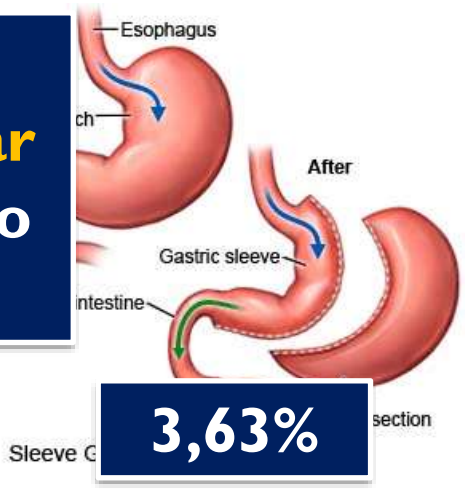
Early Complications Rate

3,14%

Complication rate were similar between the two procedures



3,63%

COMPLICANZE POST OPERATORIE PRECOCI	NUMERO DI COMPLICATI	PERCENTUALE
Perforazione, fistola, deiscenza	4	0,46%
Fistola anastomosi gastrodigiunale	1	0,12%
Complicanze respiratorie	1	0,12%
Embolia polmonare	1	0,12%
Emoperitoneo	5	0,58%
Sanguinamento endoluminale	6	0,70%
Sanguinamento anastomotico	1	0,12%
Ulcera acuta	1	0,12%
Altra complicanza	7	0,81%
TOTALI	**27**	**3,14%**

COMPLICANZE POST OPERATORIE PRECOCI	NUMERO DI COMPLICATI	PERCENTUALE
Perforazione, fistola, deiscenza	21	2,46%
Fistola sul remnant gastrico	1	0,12%
Complicanze respiratorie	1	0,12%
Embolia polmonare	1	0,12%
Emoperitoneo	4	0,47%
Stenosi	1	0,12%
Altra complicanza	2	0,23%
TOTALI	**31**	**3,63%**

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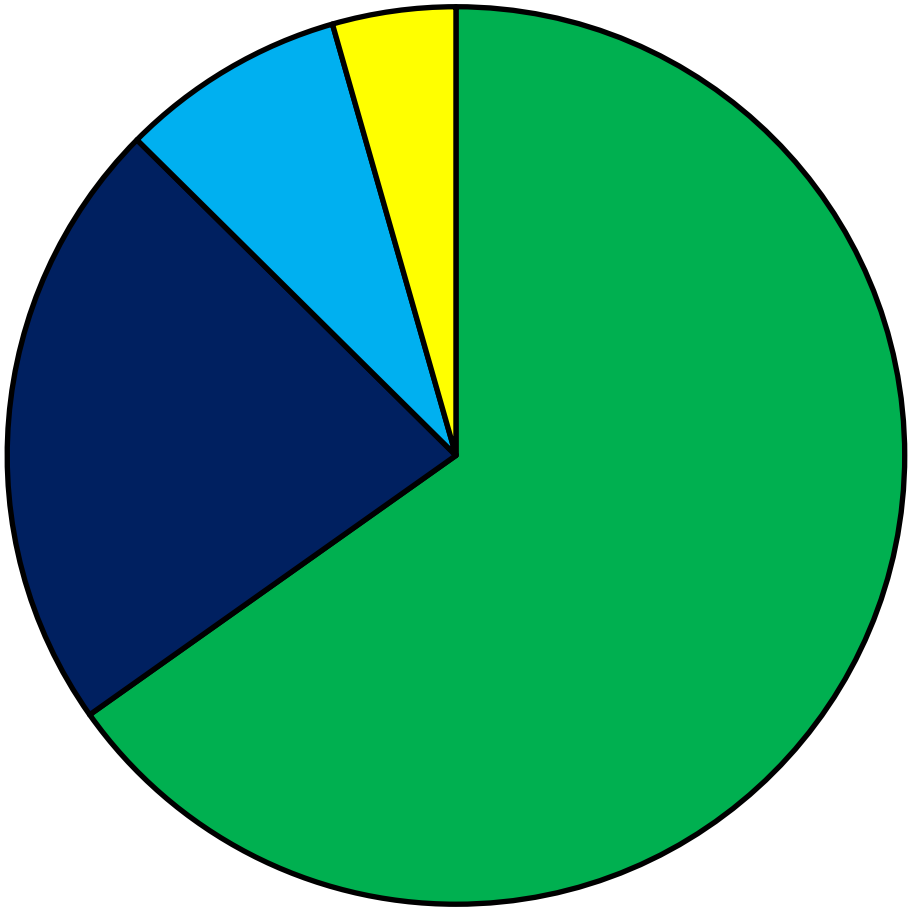
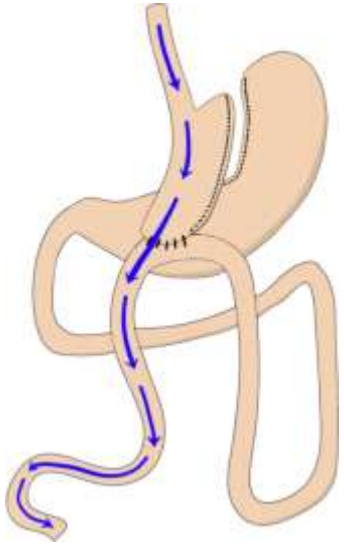
Revisional Surgery since 2015



OAGB 68,75% SG 23,43% RYGB 8,59% Other 4,68%

One Anastomosis Gastric Bypass was our most used revisional surgery technique



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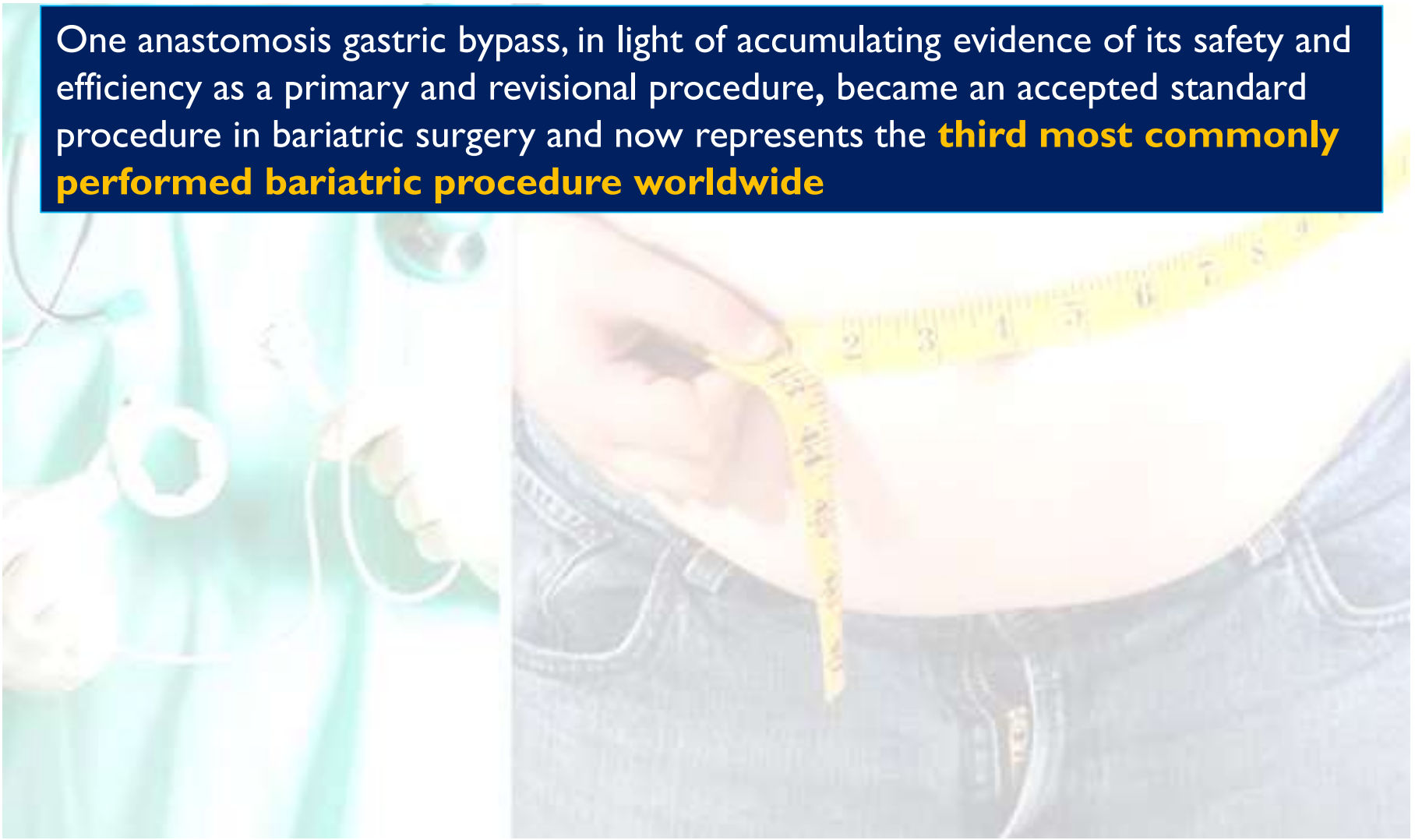
Topics

Take Home Messages

One anastomosis gastric bypass, in light of accumulating evidence of its safety and efficiency as a primary and revisional procedure, became an accepted standard procedure in bariatric surgery and now represents the **third most commonly performed bariatric procedure worldwide**



Take Home Messages

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In terms of weight loss and comorbidity remission, **even at age extremities**, **OAGB seems to be more effective than SG**, although postoperative consequences are rather comparable between the two methods.

Take Home Messages

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In terms of weight loss and comorbidity remission, **even at age extremities**, **OAGB seems to be more effective than SG**, although postoperative consequences are rather comparable between the two methods.

Since acid exposure time percent of the esophagus and rate of esophagitis are significantly higher after LSG when compared to **MGB/ OAGB**, this procedure should be **preferred in the case of preoperative GERD or low-grade (A) esophagitis**.

Take Home Messages

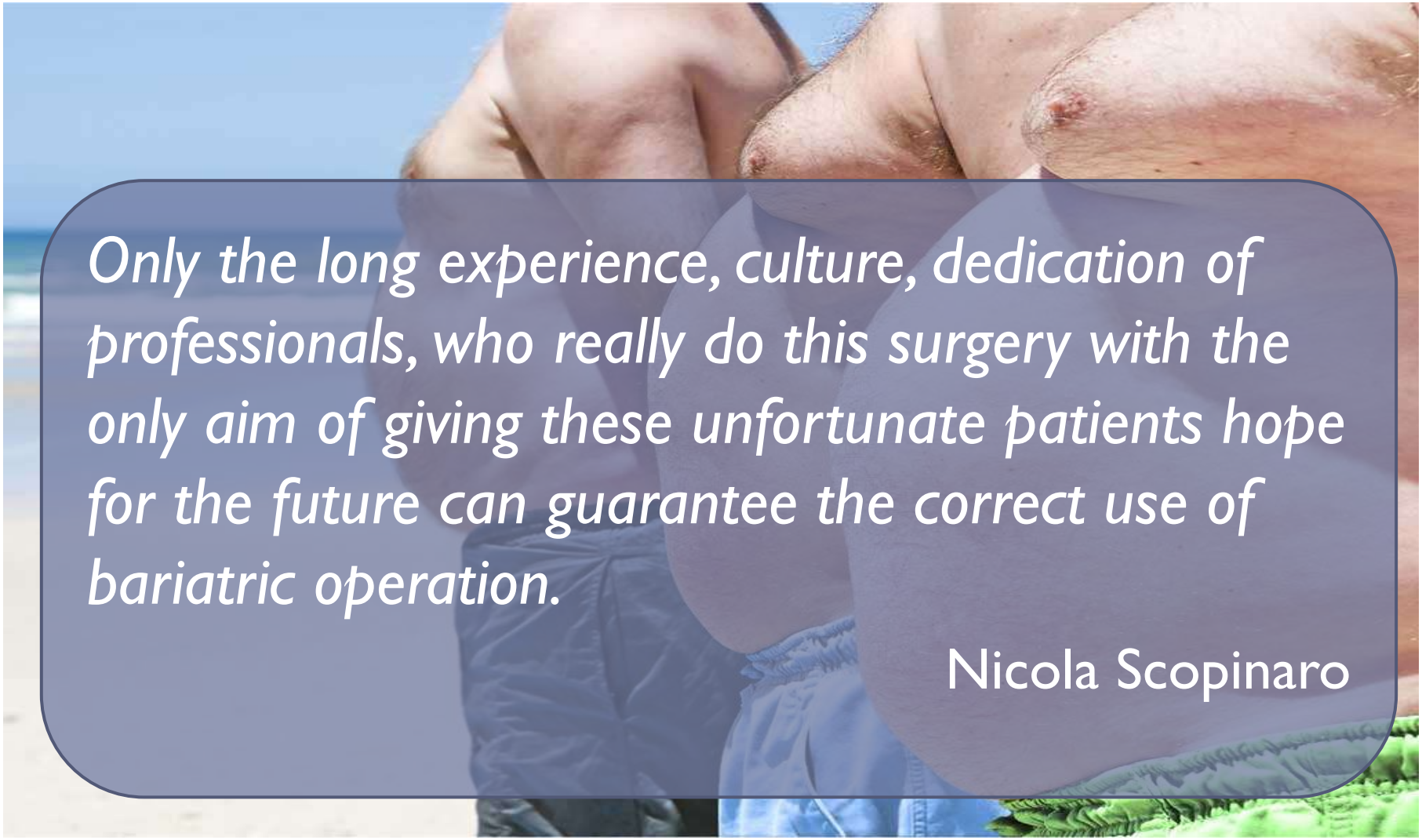
One anastomosis gastric bypass, in light of accumulating evidence of its safety and efficiency as a primary and revisional procedure**,** became an accepted standard procedure in bariatric surgery and now represents the **third most commonly performed bariatric procedure worldwide**

In terms of weight loss and comorbidity remission, **even at age extremities**, **OAGB seems to be more effective than SG**, although postoperative consequences are rather comparable between the two methods.

Since acid exposure time percent of the esophagus and rate of esophagitis are significantly higher after LSG when compared to **MGB/ OAGB**, this procedure should be **preferred in the case of preoperative GERD or low-grade (A) esophagitis**.

While the ideal operation in bariatric surgery does not exist thus far, **the long-term care of obese patients remains challenging**. Close and subsequent long-term follow-up is of utmost importance to uncover problems over the long haul

Thank you for your attention



Only the long experience, culture, dedication of professionals, who really do this surgery with the only aim of giving these unfortunate patients hope for the future can guarantee the correct use of bariatric operation.

Nicola Scopinaro