

XXVIII IFSO World Congress

9-12 September 2025 | Santiago, Chile



OAGB: Medium-Long Term Results What the Evidence Tells

Prof. Nasser sakran

Holy Family Hospital, Nazareth

The Azrieli Faculty of Medicine, Bar-Ilan

University, Israel



IFSO 2025 Santiago

Combined Therapies, The Dawn of a New Era

ifso2025.org

Disclosure Slide



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

I have no actual or potential conflict of interest in this presentation



ifso2025.org

Caser Mix Disclosure Slide

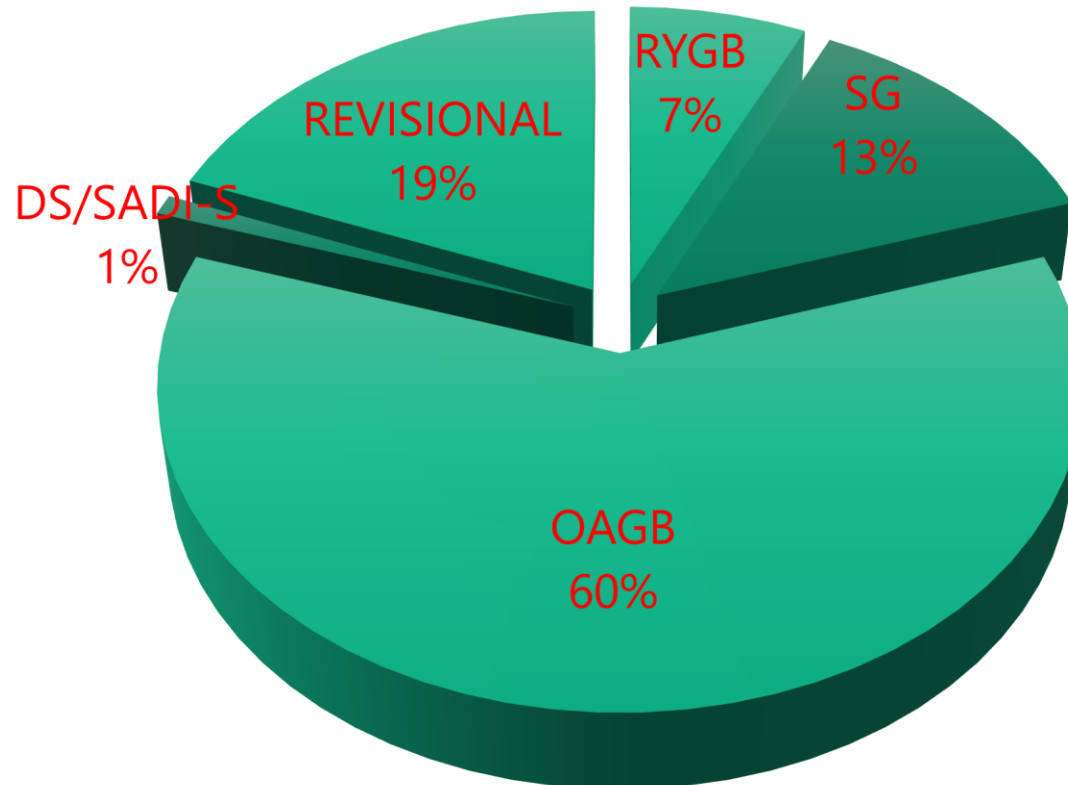


XXVIII IFSO
World Congress

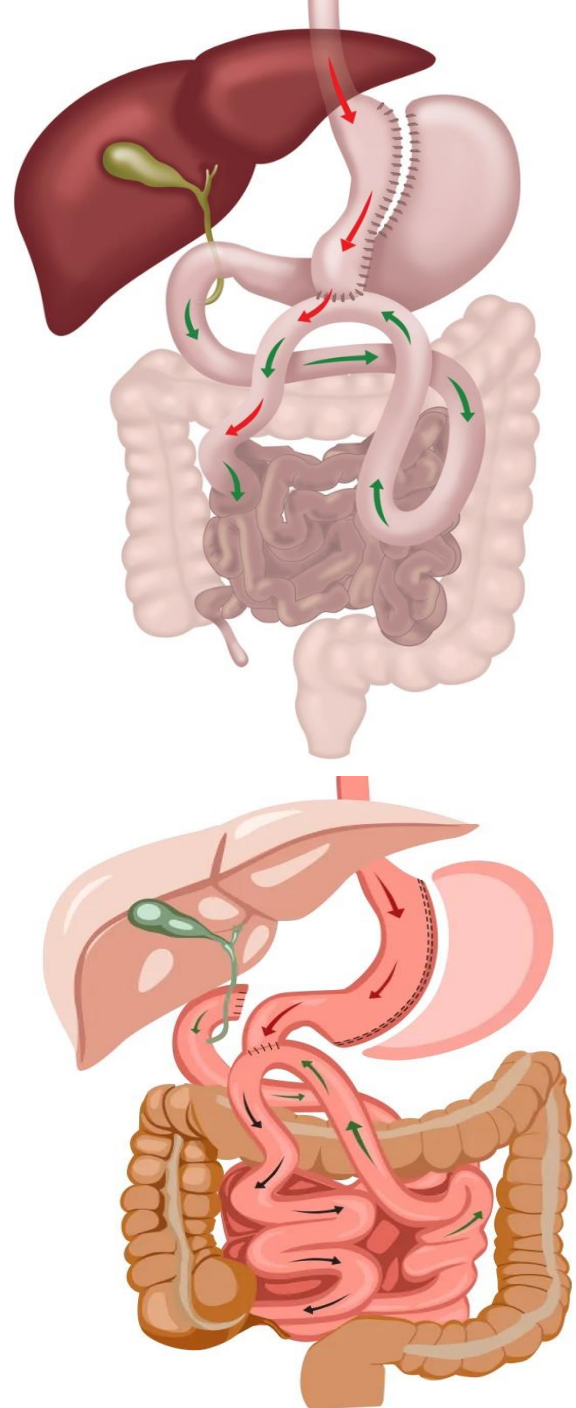
9-12 September 2025
Santiago, Chile



Operations



ifso2025.org



I CAN'T STOMACH

THIS

ANYMORE

BYPASSING

OLD HABITS



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

analyze your old habits
BUILD NEW HABITS



ifso2025.org

Background



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

- In 2001 Dr. Rutledge reported the first results of a new surgical procedure addressing obesity with 1274 cases of MGB
- In 2005 Dr. Lee published the first randomized forecast about RYGB and MGB
- In 2008, MGB procedure was carried out in France, surgical activity with perseverance and this fact marked the successive progression and allowed to spread the technique worldwide
- Nowadays OAGB is the third most performed surgical technique in the world for Obesity Surgery

1. Lee WJ, Yu PJ, et al. Ann. Surg. 2005;242:20-8.
2. Lee WJ, Wang W, et al. Obes. Surg. 2008;18:294-9.
3. Deitel M. Bariatric News, issue 18, Dec. 2013-page 13.



Trends in BS in Israel



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

Obesity Surgery (2020) 30:1761–1767
<https://doi.org/10.1007/s11695-020-04426-2>



ORIGINAL CONTRIBUTIONS



Trends in Bariatric Surgery: a 5-Year Analysis of the Israel National

Bariat

Uri Ka
Nasser

There is a dramatic **shift** from SG to OAGB as the most prevalent bariatric procedure in Israel

Before you judge me, make sure your perfect

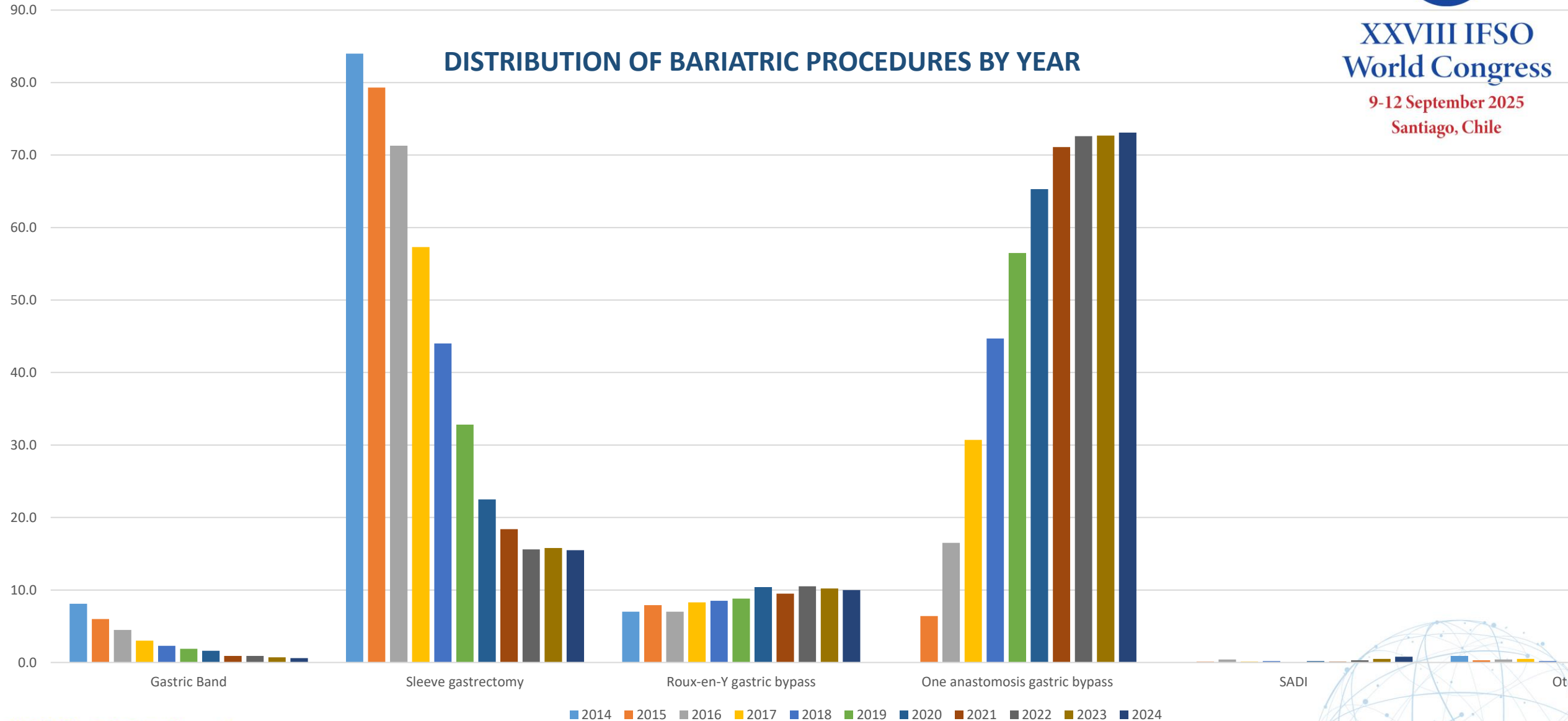
Trends in BS in Israel



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

DISTRIBUTION OF BARIATRIC PROCEDURES BY YEAR



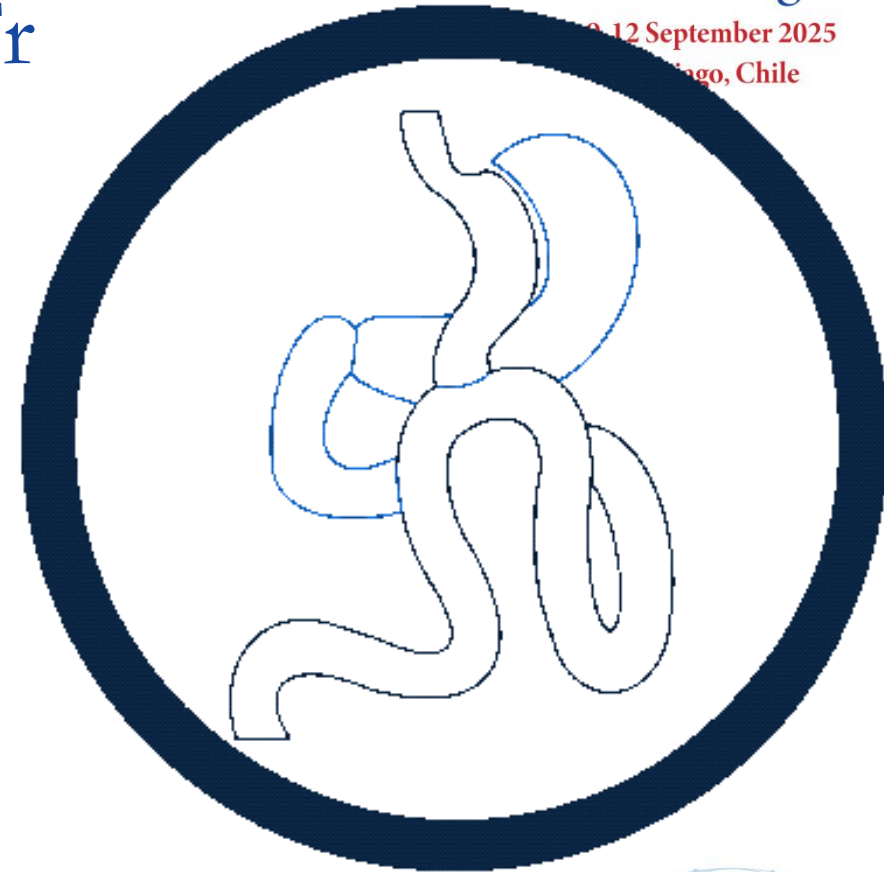
OAGB: Standardization of the technique

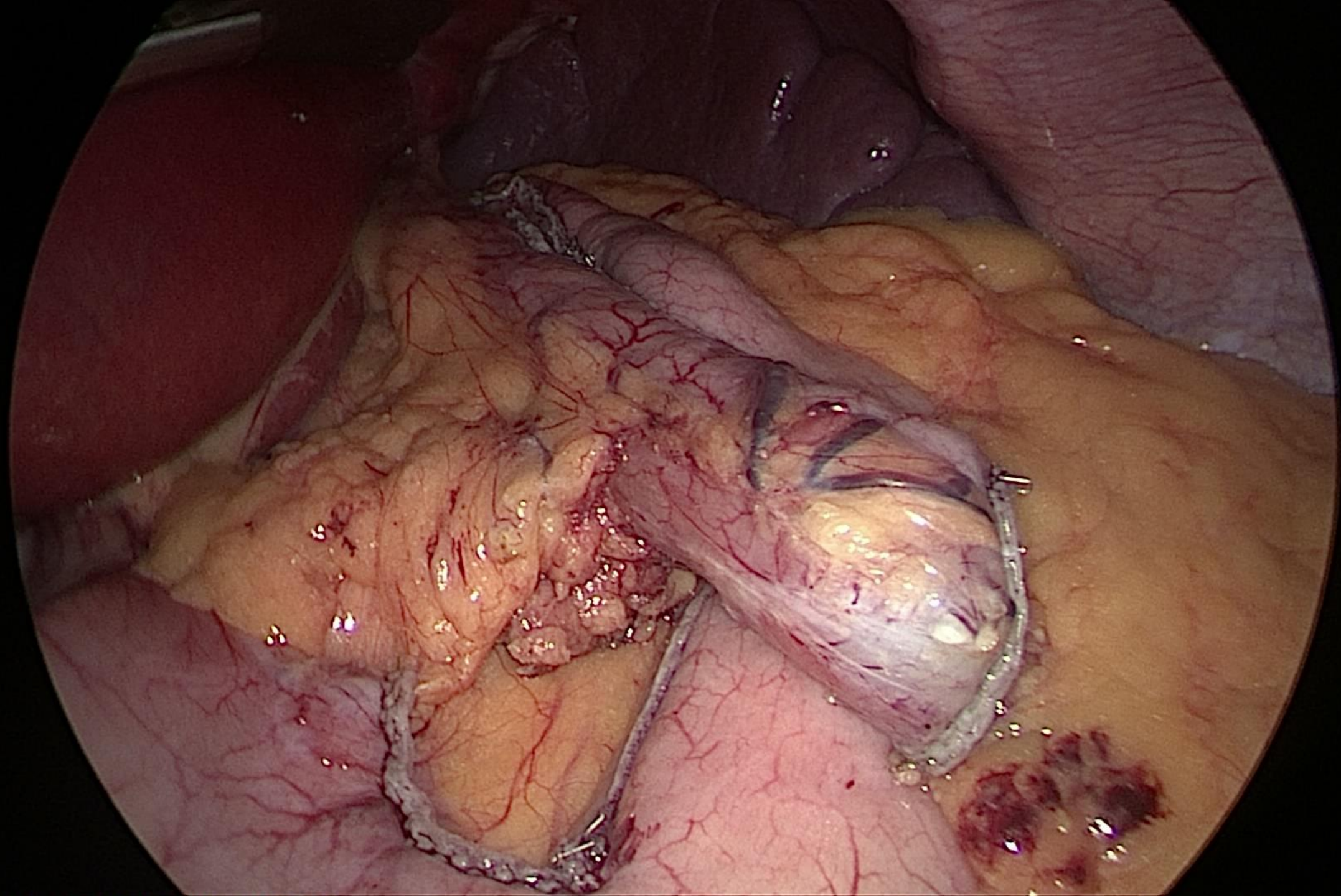


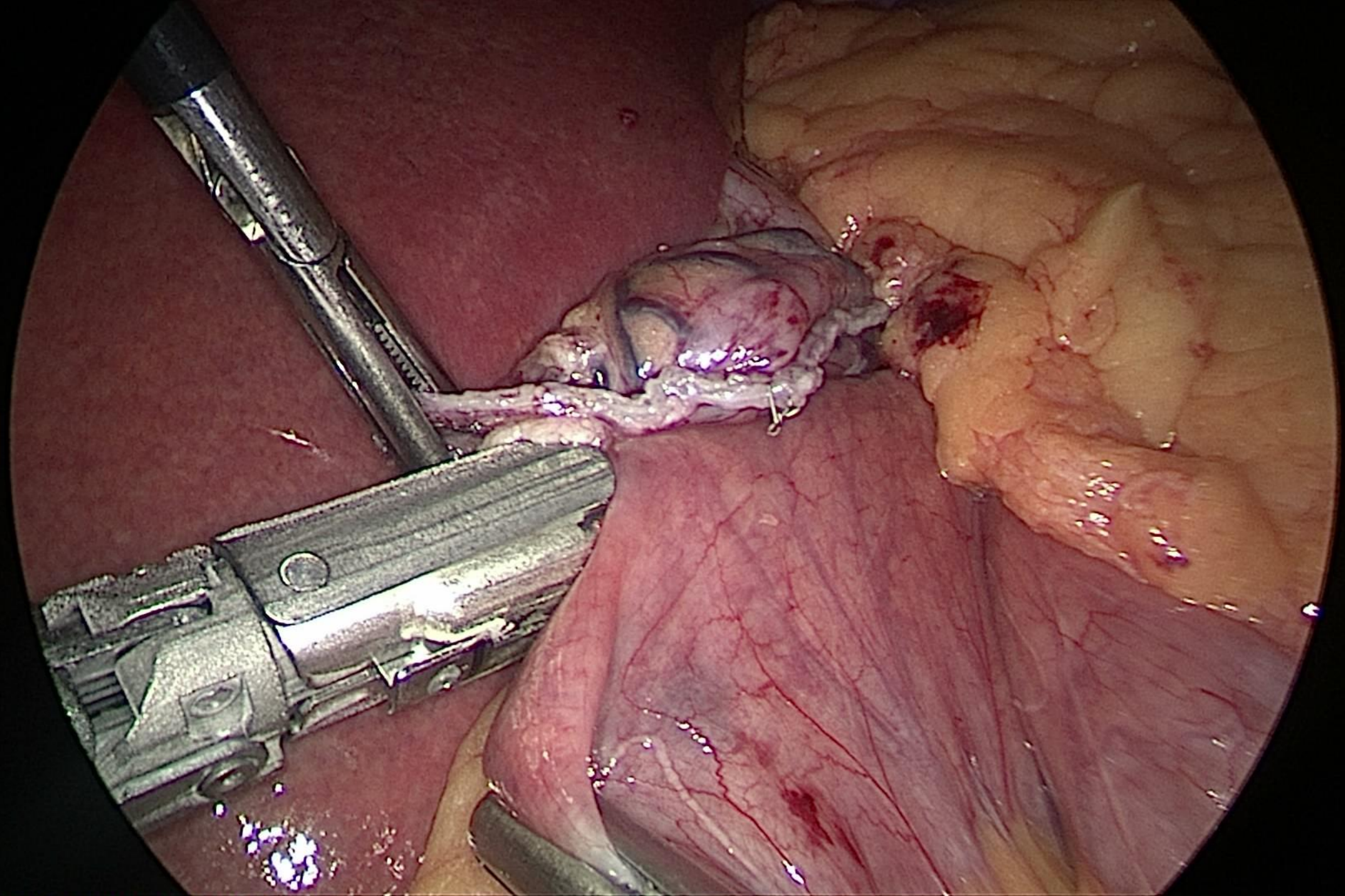
XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

- Creation of the gastric pouch around 34Fr gastric lavage tube
- Long gastric tube
- Hybrid technique
- A 150-200cm BPL length (Afferent loop)
- The Afferent limb is fashioned in an Antecolic-Antegastric manner

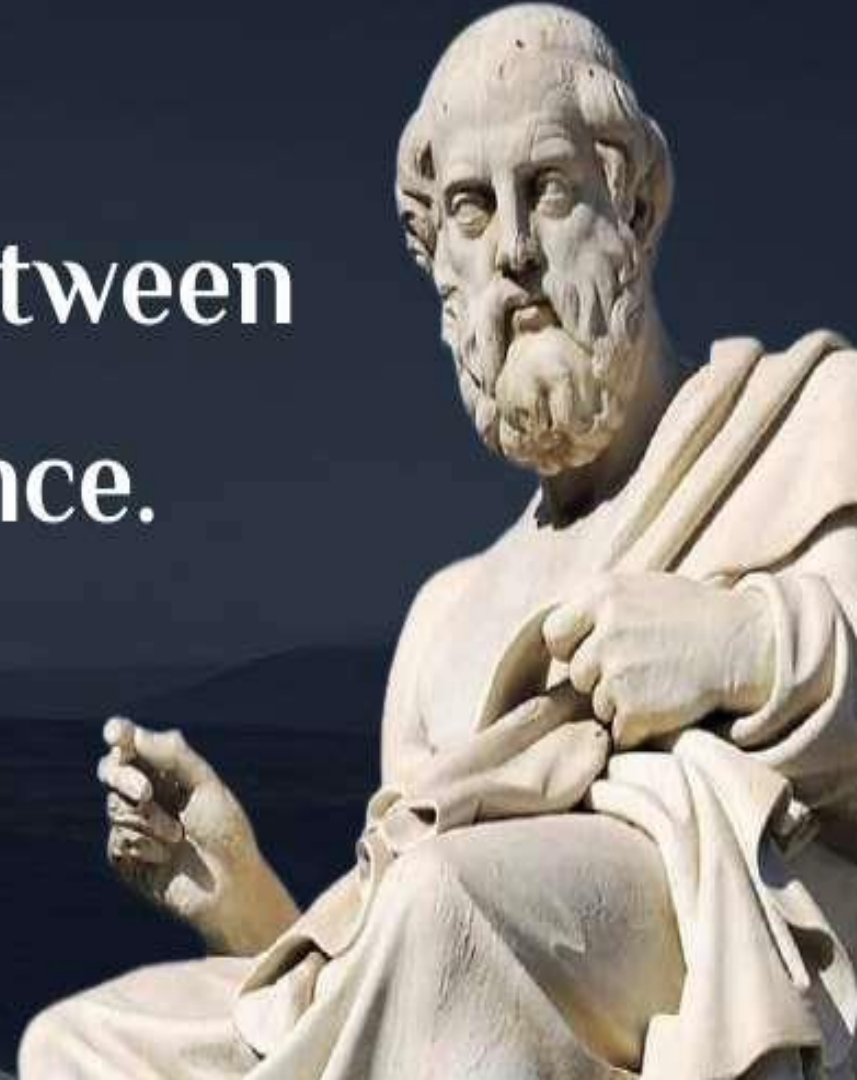






Opinion Is The Medium Between
Knowledge And Ignorance.

~ PLATO ~

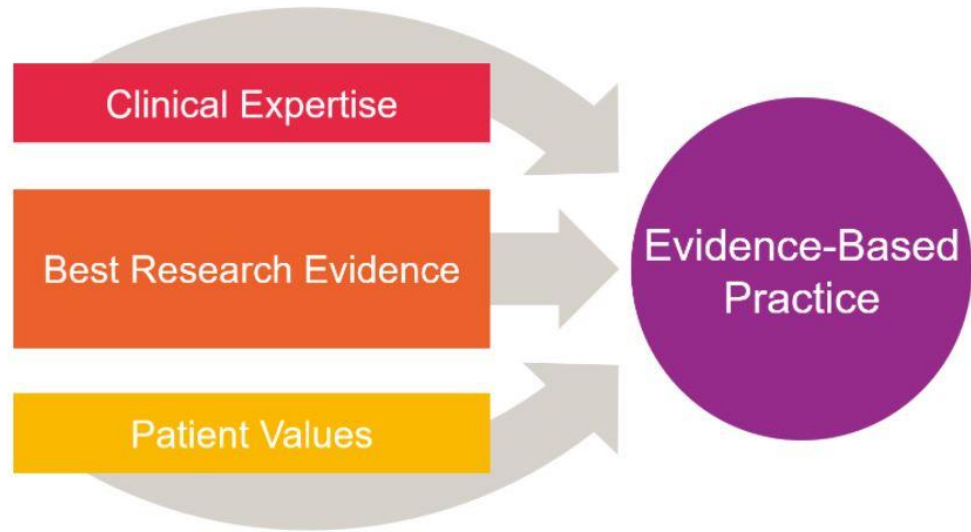


Evidence-Based Practice for Health Professionals



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile



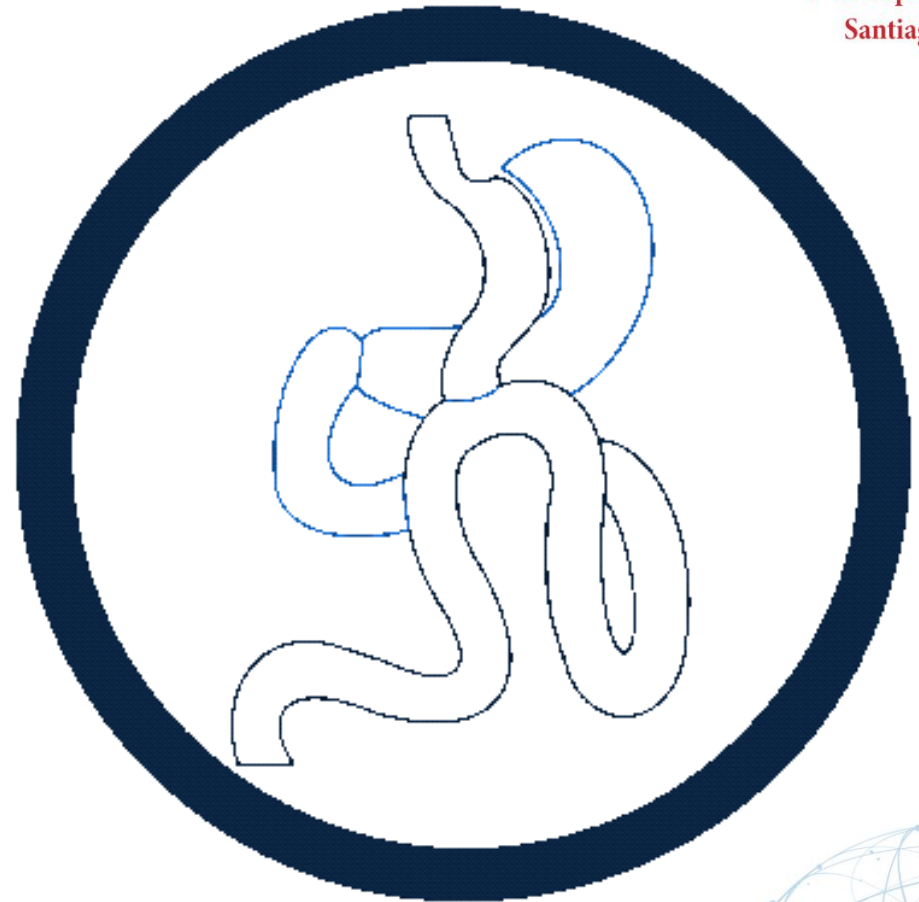
Causes for Long-Term Complications after OAGB



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

- Short Gastric Pouch
- Long Biliopancreatic Limb
- Intractable Bile Reflux
- Chronic Marginal Ulcer
- Internal Hernia
- Excessive weight loss
- Malnutrition



ifso2025.org

Criticism on OAGB



XXVIII IFSO
World Congress
9-12 September 2025
Santiago, Chile

- Patients with OAGB can develop Bile Reflux and MU [1,5]
- Iron deficiency anemia is the most prevalent anemia observed after GB procedures [2]
- Bile acid concentrations were found to be higher in patients with GERD [3,4]
- Controversy remains regarding the long-term theoretical risk of gastric/esophageal cancer following OAGB
- Nutritional deficiencies and diarrhea [6]
- Extremely limited in quality studies
- Lack in the available literature of homogeneity and standardization making comparisons difficult

1. **Bruzzi M**, et al. One-Anastomosis Gastric Bypass: Why Biliary Reflux Remains Controversial? *Obes Surg.* 2017;27:545-7.
2. **Kermansaravi M**, et al. Iron deficiency anemia after one anastomosis gastric bypass: A systematic review and meta-analysis. *Surg Endosc.* 2025 Mar;39(3):1509-1522.
3. **Robert M**, et al. Efficacy and safety of one anastomosis gastric bypass versus Roux-en-Y gastric bypass for obesity (YOMEGA): a multicentre, randomised, open-label, non-inferiority trial. *Lancet.* 2019 Mar 30;393(10178):1299-1309.
4. **Felsenreich DM**, et al. Update on esophageal function, acid and non-acid reflux after one-anastomosis gastric bypass (OAGB): high-resolution manometry, impedance-24-h pH-metry, and gastroscopy in a prospective mid-term study. *Surg Endosc.* 2025 Apr;39(4):2335-2345.
5. **Lee S**, et al. Marginal Ulcers Following One-Anastomosis Gastric Bypass: a Systematic Review and Meta-analysis. *Obes Surg.* 2023 Sep;33(9):2884-2897.
6. **Bandlamudi N**, et al. Malnutrition Following One-Anastomosis Gastric Bypass: a Systematic Review. *Obes Surg.* 2023 Dec;33(12):4137-4146.

OAGB: Gastroesophageal Cancer

Parmar C, Pouwels S. Oesophageal and Gastric Cancer After Bariatric Surgery: an Up-to-Date Systematic Scoping Review of Literature of 324 Cases. *Obes Surg.* 2022 Dec;32(12):3854-3862.

- A total of 52 unique studies were included which reported on 324
- A mean of 62.95 ± 32.75 months was the time from BMS to diagnosis of cancer
- 133 cases (41.0%) after RYGB
- 97 cases (30.0%) GB
- 58 (18.0%) after SG
- 7 cases have been reported after OAGB
- The majority of tumors were adenocarcinoma ($n = 208$, 87.4%)
- 122 of 324 patients died (37.8%)

Chemaly R, Diab S, Khazen G, Al-Hajj G. Gastroesophageal Cancer After Gastric Bypass Surgeries: a Systematic Review and Meta-analysis. *Obes Surg.* 2022 Apr;32(4):1300-1311.

- Fifty cases were identified
- 61% (27/44) of the cancers after RYGB were in the gastric tube compared to 37.5% (3/8) after OAGB
- This resulted in an odds ratio of 0.38 (p -value = 0.26), which failed to prove an increase in cancer occurrence in the gastric tube after OAGB compared to RYGB



**XXVIII IFSO
World Congress**

**9-12 September 2025
Santiago, Chile**

OAGB: Long-Term

- ✓ OAGB is high percentage of success
- ✓ Malabsorptive procedures have a stronger effect on WL
- ✓ OAGB is generally considered a safe and effective bariatric surgery with durable WL and metabolic improvements
- ✓ Long-term studies indicate that OAGB can lead to significant WL, with EWL ranging from 66.9% to 77% at 2-12 years post-surgery
- ✓ OAGB also demonstrates high rates of remission for T2DM, HTN, and other obesity-related comorbidities



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile



OAGB has shown significant success in managing obesity-related comorbidities, particularly T2D



A study reported a T2D remission rate of 84% in the OAGB group compared to 78% in the RYGB group



Remission rates for other comorbidities like HTN, dyslipidemia, and OSA have also been reported.



OAGB: RCTs

XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

- OAGB is not inferior to RYGB regarding percentage excess BMI loss at 5 years with similar metabolic outcomes. The improvement of the nutritional risk and diarrhea rate in the OAGB group, even with a 200 cm BPL, suggests an intestinal adaptation with time [1]
- YOMEGA and Taiwan studies showed that OAGB is a technically easier procedure and features better glycemic control than RYGB, but has a malabsorptive effect [2]
- OAGB is significantly better than LSG in all three parameters at 5 years (%EWL, comorbidity resolution, and QoL) [3]
- OAGB demonstrated less use of surgical stapling and unexplainably less postoperative pain compared to RYGB [4]

1. **Robert M**, et al. Efficacy and safety of one anastomosis gastric bypass versus Roux-en-Y gastric bypass at 5 years (YOMEGA): a prospective, open-label, non-inferiority, randomised extension study. *Lancet Diabetes Endocrinol.* 2024 Apr;12(4):267-276.
2. **Lee WJ**, et al. Randomized Controlled Trial of One Anastomosis Gastric Bypass Versus Roux-En-Y Gastric Bypass for Obesity: Comparison of the YOMEGA and Taiwan Studies. *Obes Surg.* 2019 Sep;29(9):3047-3053.
3. **Jain M**, et al. LSG vs MGB-OAGB: 5-Year Follow-up Data and Comparative Outcome of the Two Procedures over Long Term-Results of a Randomised Control Trial. *Obes Surg.* 2021 Mar;31(3):1223-1232.
4. **Level L**, Rojas A, Piñango S, Avariano Y. One anastomosis gastric bypass vs. Roux-en-Y gastric bypass: a 5-year follow-up prospective randomized trial. *Langenbecks Arch Surg.* 2021 Feb;406(1):171-179.

OAGB: RCTs



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

A prospective, randomized controlled trial, known as the [YOMEGA study](#), compared the efficacy and safety of OAGB) and RYGB for obesity treatment. [The Lancet 2024](#)

➤ The study found that OAGB was non-inferior to RYGB in

- The YOMEGA study suggests that OAGB is a viable alternative to RYGB for WL and diabetes remission, with potential benefits in terms of shorter operative time and potentially faster initial WL.
- Clinicians should be aware of the potential for increased diarrhea and nutritional risk with OAGB, particularly in the early postoperative period.

OAGB: RCTs and T2DM



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

- OAGB is non-inferior to RYGB in terms of remission of T2DM, WL, and early and late complications with a shorter operating time [1,3]
- RYGB proved to be significantly superior in reducing bile reflux and de novo GERD [3]
- OAGB had a statistically significantly better outcome compared to RYGB and SG regarding T2DM remission and %EWL at 5 years [2]

1. **Singh B**, et al. One Anastomosis Gastric Bypass (OAGB) vs Roux en Y Gastric Bypass (RYGB) for Remission of T2DM in Patients with Morbid Obesity: a Randomized Controlled Trial. *Obes Surg.* 2023 Apr;33(4):1218-1227.
2. **Kermansaravi M**, et al. Efficacy of One Anastomosis Gastric Bypass Versus Sleeve Gastrectomy and Roux-en-Y Gastric Bypass for the Treatment of Type 2 Diabetes Mellitus: a Systematic Review and Meta-Analysis of Randomized Clinical Trials. *Obes Surg.* 2024 Dec;34(12):4555-4562.
3. **de Oliveira Ramos JV**, et al. One-Anastomosis Versus Roux-en-Y Gastric Bypass in the Resolution of Comorbidities: A Non-inferiority Meta-analysis and Meta-regression. *Obes Surg.* 2025 Jul 18. doi: 10.1007/s11695-025-08077-z

OAGB: A Comparative Studies



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

➤ Madani Study [1]:

- SG, RYGB, and OAGB significantly improved the QoL after surgery
- OAGB had a significantly higher total BAROS score at the 5-year follow-up compared to those who underwent RYG and SG

➤ Balmurugan Study [2]:

- WL outcomes were greater with SADI-S (5 years) and OAGB (10 years), late complications were more frequent with RYGB
- Both SADI-S and OAGB are as effective as RYGB for WL, but OAGB offers lesser complications

1. **Madani S**, et al. Five-Year BAROS Score Outcomes for Roux-en-Y Gastric Bypass, One Anastomosis Gastric Bypass, and Sleeve Gastrectomy: a Comparative Study. *Obes Surg.* 2024 Feb;34(2):487-493. doi: 10.1007/s11695-023-07015-1.
2. **Balamurugan G**, et al. Comparison of Efficacy and Safety Between Roux-en-Y Gastric Bypass (RYGB) vs One Anastomosis Gastric Bypass (OAGB) vs Single Anastomosis Duodeno-ileal Bypass with Sleeve Gastrectomy (SADI-S): a Systematic Review of Bariatric and Metabolic Surgery. *Obes Surg.* 2023 Jul;33(7):2194-2209.

OAGB: Long-Term Results



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

Carandina S, Soprani A, Zulian V, Cady J. Long-Term Results of One Anastomosis Gastric Bypass: a Single Center Experience with a Minimum Follow-Up of 10 Years. *Obes Surg.* 2021 Aug;31(8):3468-3475.

➤ Retrospective review of prospectively collected data from 2005-2007

➤ At 10 years of FU, the average WL was 33% of total WL with a percentage of diabetes, HTN, and OSA resolution or improvement. Concerns about OAGB include the risk of malnutrition and bile reflux

➤ BMI was 50.7 ± 11.6 , %T WL 55.4 ± 10.6 , mean %E WL 64.1 ± 24.0

➤ All of the comorbidities showed a high improvement or were fully resolved

➤ Late complications: 19 pts (4.9%) developed a MU, 9 (2.3%) major malnutrition, 13 (9.8%) biliary reflux, and 5 (2.7%) severe anemia

OAGB: Long-Term Comparative study



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

Dayan D, Bendayan A, Nizri E, Abu-Abeid S, Lahat G, Abu-Abeid A. One Anastomosis Gastric Bypass Compared with Sleeve Gastrectomy in Elderly Patients: Safety and Long-term Outcomes. *Obes Surg.* 2023 Feb;33(2):570-576.

➤ Collected data from 20012-2019 in patients aged ≥ 65 years

➤ 124 patients underwent OAGB (n = 41) and SG (n = 83)

➤ Mean EWL of OAGB patients was 21.9% \pm 8.1% compared with 11.1% \pm 8.1% in SG patients. OAGB in the elderly is safe and results in better long-term weight reduction and resolution of T2DM and HTN than SG

Mean EWL
21.9% \pm

➤ 52% underwent primary procedure (48% Redo)

➤ Resolution rates of obesity-associated medical problems were similar, except T2DM and HTN, which were 86.6% and 73.3% in OAGB, compared with 29.7% and 36.3% in SG patients (p < 0.001 and p = 0.001), respectively

➤ Revision for late complications was required in two OAGB patients



ifso2025.org

OAGB as a Conventional Procedure



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

Kermansaravi M, et al. Five-year outcomes of one anastomosis gastric bypass as conversional surgery following sleeve gastrectomy for weight loss failure. Sci Rep. 2022 Jun 18;12(1):10304

- 2014 to 2017, totally 23 patients with a history of SG conversion to OAGB in terms of WL failure or WR who had completed their 5-year FU were studied

- OAGB is an effective conversional procedure for insufficient weight loss and weight regain following failed SG and lead to satisfactory changes in obesity associated medical problems

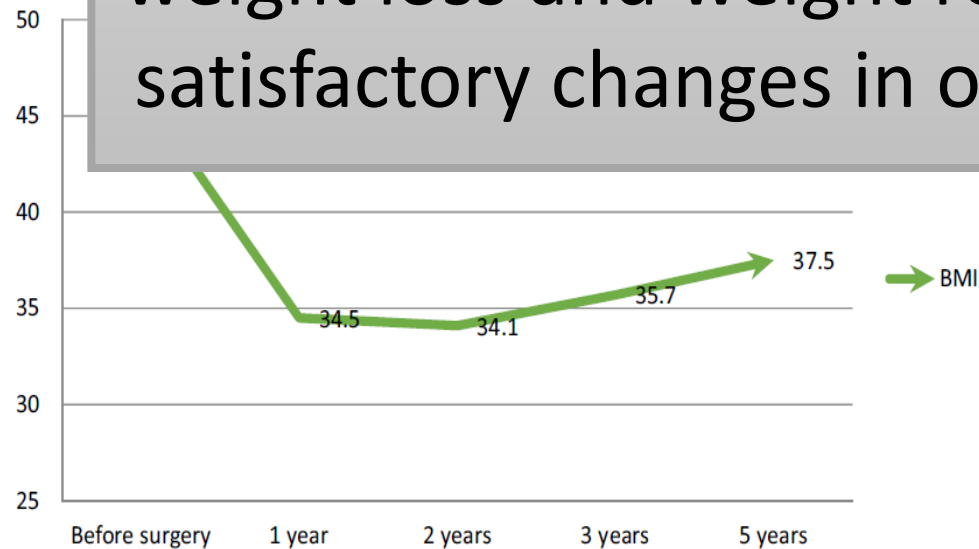


Figure 2. Trend of change in BMI during 5 years after conversional OAGB through repeated measure test.

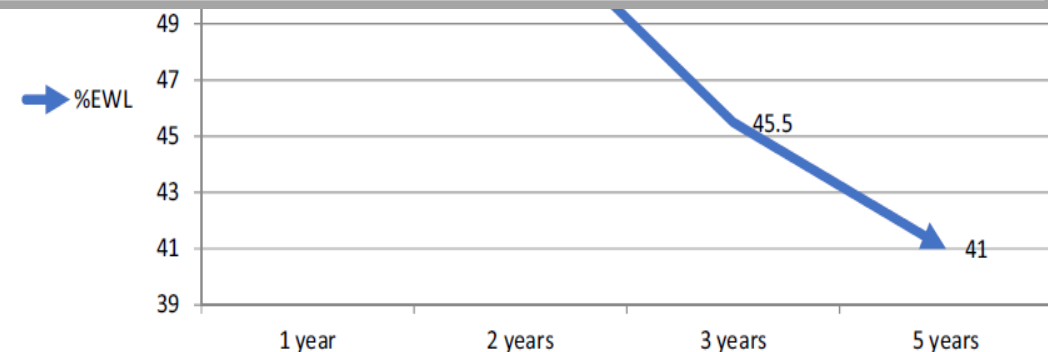


Figure 3. Trend of change in %EWL during 5 years after conversional OAGB through repeated measure test.

OAGB: Long-Term Results



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

Neuberg M, Blanchet MC, Gignoux B, Frering V. Long-Term Outcomes After One-Anastomosis Gastric Bypass (OAGB) in Morbidly Obese Patients. *Obes Surg.* 2020 Apr;30(4):1379-1384.

- A total of 163 patients completed 5 to 8 yrs of FU
- At 5, 6, 7, and 8 years of FU, respective mean BMI reduction was 12.6 (n = 163), 11.8 (n = 100), 10.7 (n = 82), and 8.8 (n = 40)
- Res: OAGB provided very good weight loss, comorbidity improvement, and 3 ± 23 quality of life at follow-up of ≥ 5 years
- All obesity-related comorbidities decreased significantly at FU time points.
- Five patients (3%) underwent laparoscopic reoperation within 90 days after surgery
- Incidence of recurrent reflux was 14.0%
- At a mean FU of 92 months (76–111), improved or greatly improved quality of life was reported by 86.0% of patients

OAGB: Long-Term Results



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

Almuhanna M, Soong TC, Lee WJ, Chen JC, Wu CC, Lee YC. Twenty years' experience of laparoscopic 1-anastomosis gastric bypass: surgical risk and long-term results. Surg Obes Relat Dis. 2021 May;17(5):968-975.

The evolution of BMI and %TWL results: The maximal WL was achieved at the second year after surgery, and weight remained stable subsequently



OAGB is a safe and durable primary bariatric procedure, with sustained WL and high resolution of T2DM up to 20 years in Taiwan. However, malnutrition is a major side effect.

	Pre-op	1y	2y	3y	4y	5y	6y	7y	8y	9y	10y	11y	12y	13y	14y	15y	16y	17y	18y
N	2223	2018	1524	1367	1188	1117	878	815	723	677	570	334	302	281	258	226	102	77	61
BMI	40.2	26.9	26.6	26.6	27.1	27.1	26.9	27.9	27.2	27.2	27.3	27.5	27.7	27.6	27.7	27.9	28.1	27.9	27.6
WL%	-	31.5	32.5	32.1	32.1	31.3	31.2	31	30.6	30.4	29.5	29.9	29.2	29.8	29.6	29.2	29.1	29.3	29.6

BMI and percentage of total weight loss after OAGB. BMI = body mass index; OAGB = 1-anastomosis gastric bypass.



OAGB: Long-Term Results



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

Liagre A, et al. Ten-year outcome of one-anastomosis gastric bypass with a biliopancreatic limb of 150 cm versus Roux-en-Y gastric bypass: a single-institution series of 940 patients. *Surg Obes Relat Dis.* 2022 Oct;18(10):1228-1238.

➤ Studies show that OAGB can be a durable and effective BS option with long-term benefits for WL and metabolic health

➤ A 10-year outcome study found that both OAGB and RYGB are effective procedures, but OAGB was associated with shorter operative times and better short- and long-term morbidity and WL outcomes.

➤ Patient satisfaction and quality of life are also generally high after OAGB

Ten-year outcomes of RYGB versus OAGB with a 150-cm biliopancreatic limb

Outcome	RYGB	OAGB 150	P value
Lost to follow-up at 120 mo	25.4% (n = 136)	21.5% (n = 87)	.164
Death during a 10-yr period	1.9% (n = 10)	1% (n = 4)	.263
Cancer	n = 4	n = 0	
Suicide	n = 2	n = 1	
Alcohol	n = 2	n = 0	
Unknown	n = 1	n = 0	
Complication of diabetes	n = 1	n = 0	
Subdural hematoma	n = 0	n = 1	
Cardiovascular events	n = 0	n = 2	
Weight at 120 mo (kg)	83 ± 17.5 (44–140); (n = 388)	78 ± 16 (50–140); (n = 310)	.0001
BMI at 120 mo (kg/m ²)	30.5 ± 5.5 (18.4–50.2)	28.8 ± 5.2 (19.5–53.4)	<.0001
%EWL at 120 mo	71.1 ± 53.4 (–355 to 720)	80.1 ± 28.7 (–17 to 173)	.008
%TWL at 120 mo	27.3 ± 12.3 (–30 to 56)	31.6 ± 11.2 (–5 to 58)	<.0001
% of revisional surgery for malnutrition or weight regain	3% (n = 16)	.5% (n = 2)	.006
GERD	21.6% (n = 76/351)	22% (n = 66/299)	.902
Evolution of GERD (%preoperative/% postoperative)	35.3%/21.6%	50.6%/22%	-
Episodes of hypoglycemia	14.7% (n = 54/366)	9.6% (n = 29/302)	.047
Diarrhea	8.1% (n = 29/358)	8.6% (n = 26/302)	.817
Smoking at 120 mo	23.6% (n = 81/343)	23% (n = 60/261)	.863
Compliance with vitamin treatment	73.2% (n = 288/366)	77.4% (n = 234/302)	.212

RYGB = Roux-en-Y gastric bypass; OAGB = one-anastomosis gastric bypass; OAGB 150 = one-anastomosis gastric bypass with a biliopancreatic limb of 150 cm; BMI = body mass index; %EWL = percentage excess weight loss; %TWL = percentage total weight loss; GERD = gastroesophageal reflux disease.

Significant values are reported in boldface.



XXVIII IFSO World Congress

9-12 September 2025
Santiago, Chile



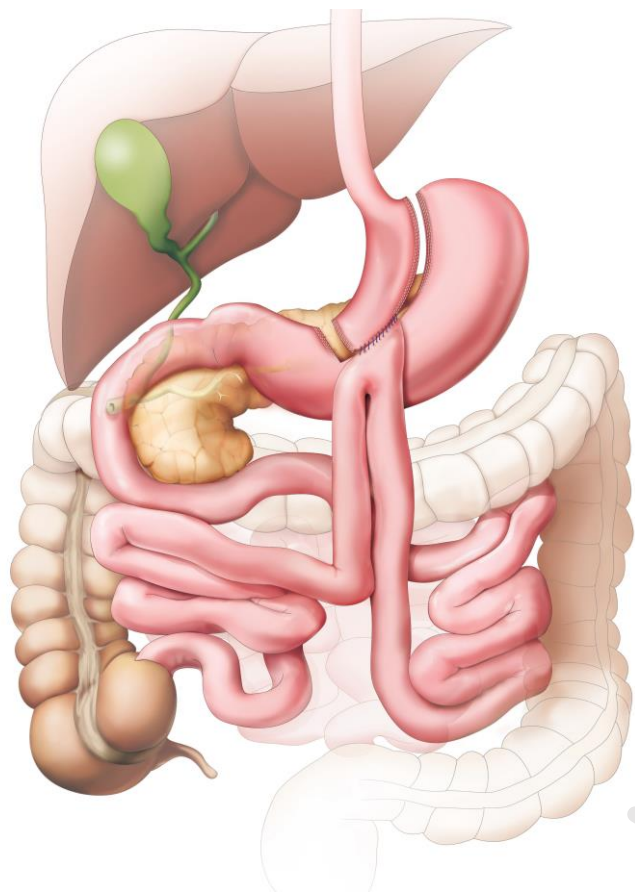
ifso2025.org

Conclusion



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile



Low mortality

Low morbidity

Low operative time

**Less Surgery compared to
GBP and BPD**

High percentage of success



ifso2025.org

Thanks



XXVIII IFSO
World Congress

9-12 September 2025
Santiago, Chile

