




XXIX IFSO
World Congress
1-4 September 2026
Toronto, Canada

**ROBOTICS IN ACTION:
THE NEW FRONTIER IN OBESITY CARE**

ROBOTIC METABOLIC BARIATRIC SURGERY USING HUGO™ RAS

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TORONTO2026 The Future of Obesity Management:
From Weight Loss to Health Gain



Disclosure Slide

☐	No, nothing to disclose
☐	Yes, please specify:

Company name	Honoraria / Expenses	Consulting / Advisory Board	Funded Research	Royalties / Patent	Stock Options	Ownership / Equity Position	Employee	Other
Medtronic	X	X						
Intuitive / Ab Medica	X	X						



CASE MIX DISCLOSURE

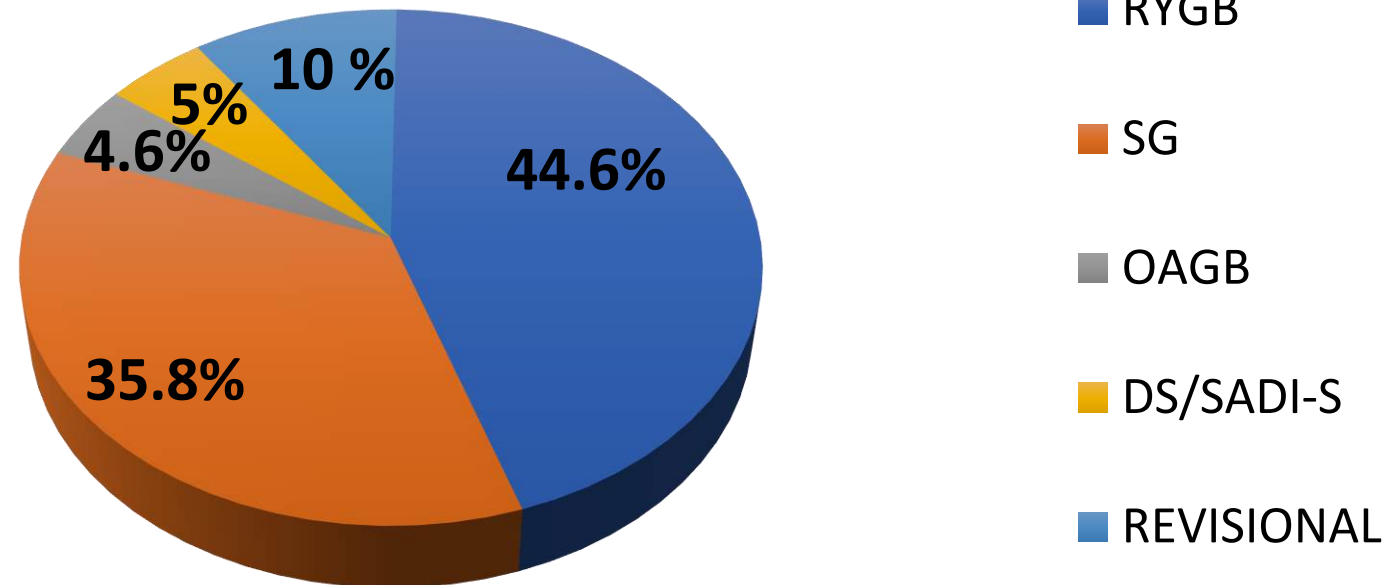
DIVISION OF ENDOCRINE AND METABOLIC SURGERY

(03/2012 - 6/2026)

> 6000 BARIATRIC PROCEDURES

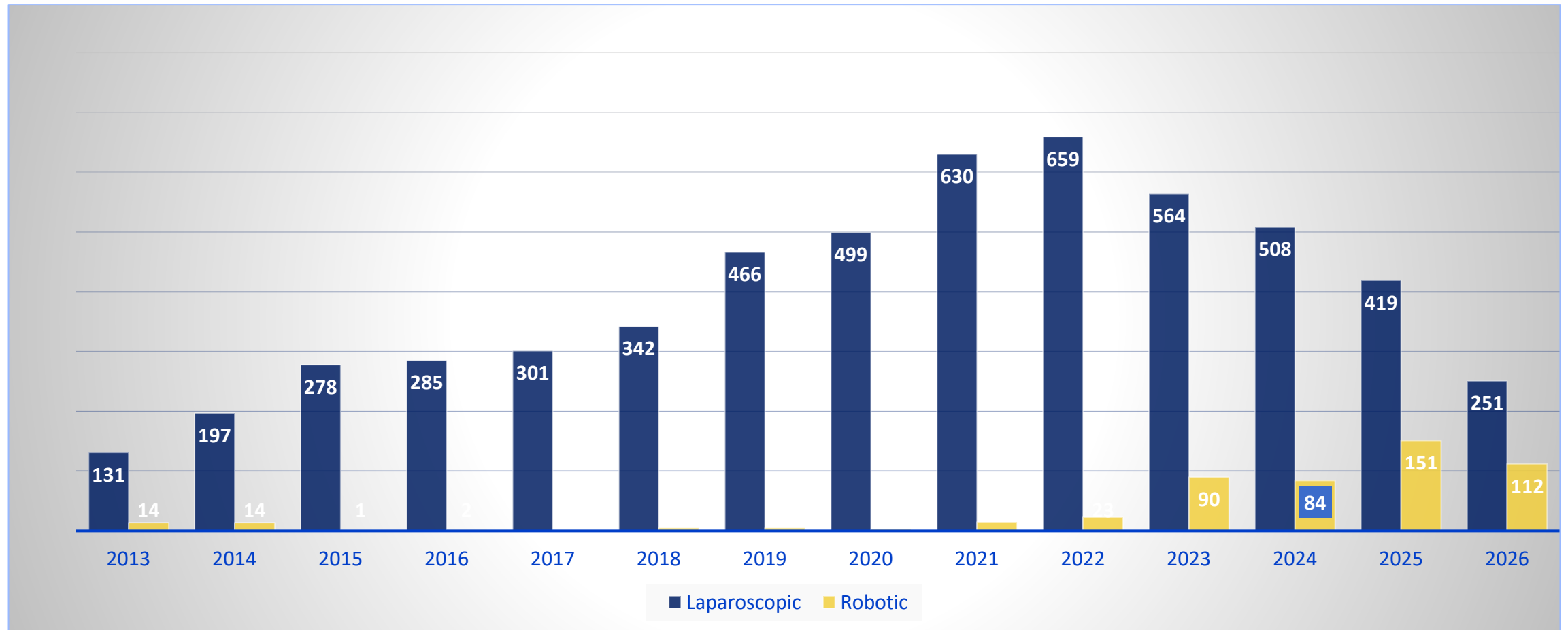
> 1000 endoscopic procedures

(Division of Endoscopic Gastroenterology)



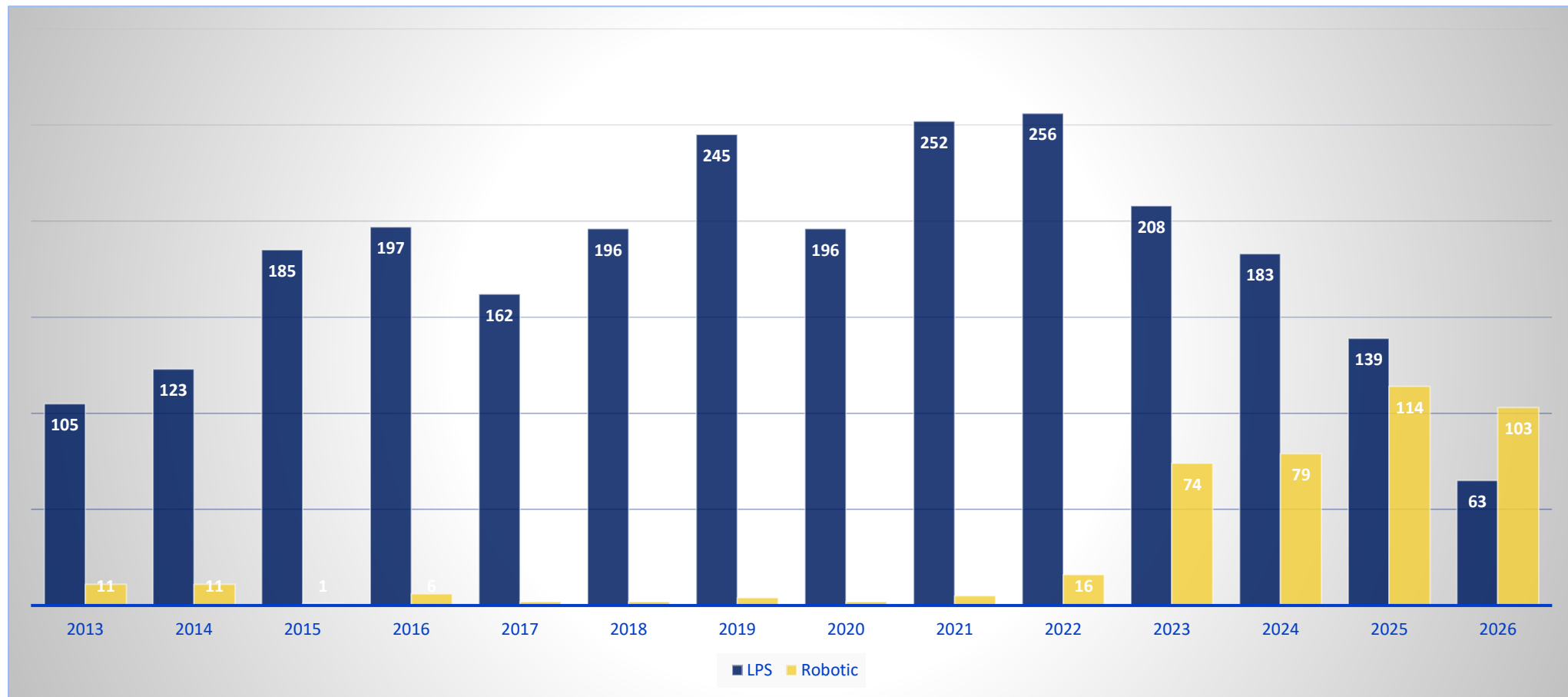
CASE MIX DISCLOSURE

Laparoscopic Vs Robotic Bariatric Procedures



CASE MIX DISCLOSURE

Laparoscopic vs Robotic RYGB



Available platforms at Fondazione Policlinico Agostino Gemelli IRCCS

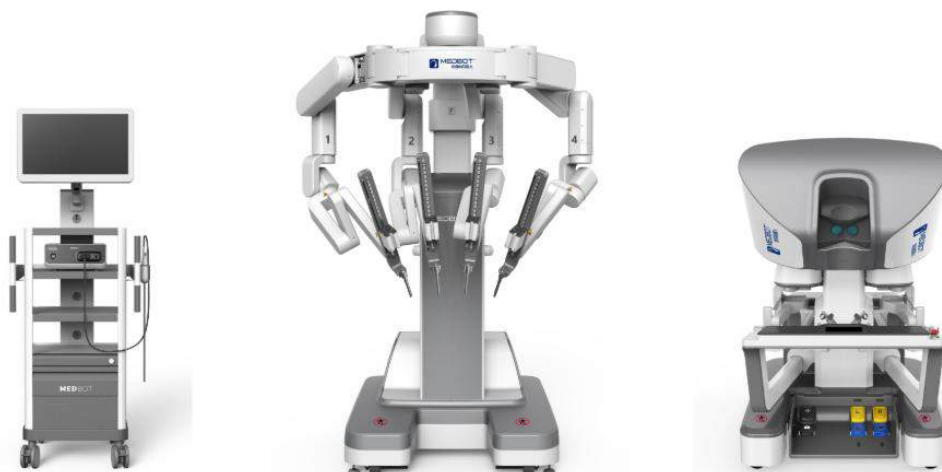


Since 2012
(Xi 2018)
(SP 2026)

Medtronic Hugo™ RAS System



Since 2022



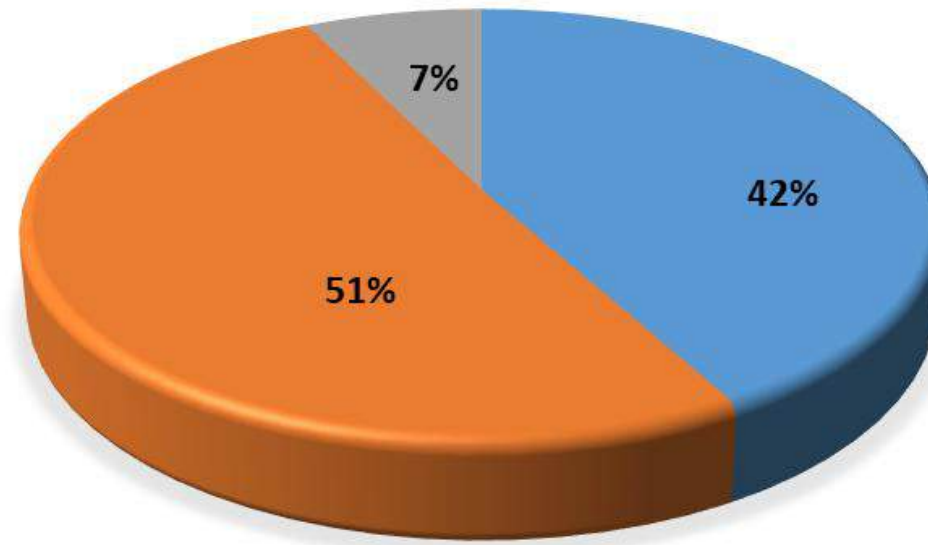
Since 2025



2024 -2025

CASE MIX DISCLOSURE

Robotic RYGB (2023-2026)



■ Da Vinci ■ Hugo™-RAS ■ Toumai®

HUGO™ RAS (Medtronic)



System tower

Open console (32-inch-widescreen HD-3D display with dedicated glasses)

Four independent arm carts

Handgrips simulating a “pistol grip”
Footswitch panel to control the camera, energy sources, and the reserve arm

A Karl Storz 3D Tipcam S™ encased in a robotic adaptor provides endoscopic vision


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RESULTS BY YEAR



268 results

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 of 6 > >>

- ☐

1
- [Outcomes of restorative proctectomy and ileal pouch-anal anastomosis: a matched-cohort analysis of **robot**-assisted, laparoscopic, and open surgery.](#)
- Cite Violante T, Cardelli S, Romano A, Tiano A, Calini G, Poggioli G, Novelli M, Rottoli M. Surg Endosc. 2026 Aug 24. doi: 10.1007/s00464-026-13300-8. Online ahead of print. PMID: 42637942
- BACKGROUND: Ileal pouch-anal anastomosis (IPAA) remains the gold standard for restorative proctocolectomy, yet its technical complexity has limited widespread minimally invasive adoption. **Robotic** surgery was introduced to overcome the ergonomic and visualization challenges ...




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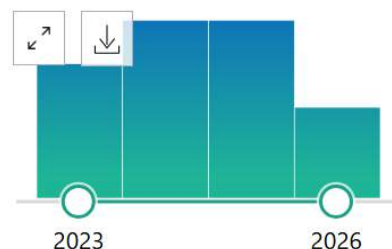
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RESULTS BY YEAR



10 results

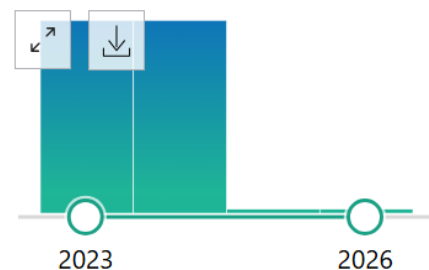
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- ☐
Robotic Conversion to Roux-en-Y Gastric Bypass for Gastroesophageal Reflux after Sleeve Gastrectomy: **HUGO RAS** Platform.
- 1 Cite Caraiman Gall ME, Güell Farré M, Díaz Del Gobbo RG, Collera Ormazabal P, Díaz Del Gobbo GG. Obes Surg. 2026 Jul;36(7):3765-3766. doi: 10.1007/s11695-026-08779-y. Epub 2026 Jun 4. PMID: 42240796 No abstract available.
- ☐
 Across Walls: First Intra-hospital Remote **Hugo Robotic** Assisted **Bariatric** Surgery.
- 2 Huang CK, Afridi JA, Hein MC, Chang PC, Chou DY, Chang TW

2 Case series
 1 PSR matched study (Vs Da Vinci)
 2 Case Report
 2 Review
 3 Letters



RESULTS BY YEAR



PUBLICATION DATE

- ☐ 1 year
- ☐ 5 years
- ☐ 10 years
- ☐ Custom Range

TEXT AVAILABILITY

- ☐ Abstract
- ☐ Free full text
- ☐ Full text

☐ 1 Comparison between DaVinci() and **Hugo()-RAS** Roux-en-Y Gastric Bypass in **bariatric** surgery.

Cite Pennestri F, Marincola G, Procopio PF, Gallucci P, Salvi G, Ciccoritti L, Greco F, Raffaelli M.

J Robot Surg. 2024 Aug 6;18(1):303. doi: 10.1007/s11701-024-02063-w.

PMID: 39105863 [Free PMC article.](#)

We retrospectively reviewed **bariatric** procedures performed from January 2013 until December 2023. We included all **robotic** RYGBs performed using **Hugo()-RAS** and DaVinci()-SS platforms. ...Although DaVinci()-SS remains the most widely adopted platform ...

☐ 2 **Robotic**-assisted Roux-en-Y gastric bypass with the novel platform **Hugo(TM)** **RAS**: preliminary experience in 15 patients.

Cite Raffaelli M, Greco F, Pennestri F, Gallucci P, Ciccoritti L, Salvi G, Procopio PF, Voloudakis N.

Updates Surg. 2024 Jan;76(1):179-185. doi: 10.1007/s13304-023-01657-7. Epub 2023 Oct 20.

PMID: 37861973 [Free PMC article.](#)

Robotic assisted surgery is a rapidly developing field in **bariatric** surgery. Its wide diffusion has led to the development and standardisation of **robotic** assisted approaches for various **bariatric** operations. ...Based on our initial experience, RYGB wit ...

☐ 3 Feasibility of Roux-en-Y Gastric Bypass with the novel **robotic** platform **HUGO RAS**.

Cite Raffaelli M, Voloudakis N, Pennestri F, Gallucci P, Modesti C, Salvi G, Greco F, Ciccoritti L.

Front Surg. 2023 Jun 5;10:1181790. doi: 10.3389/fsurg.2023.1181790. eCollection 2023.





The new robotic platform Hugo™ RAS for lateral transabdominal adrenalectomy: a first world report of a series of five cases

Marco Raffaelli^{1,2} · Pierpaolo Gallucci¹ · Nikolaos Voloudakis^{1,2} · Francesco Pennestri^{1,2} · Roberto De Cicco³ · Giovanni Arcuri⁴ · Carmela De Crea^{1,2} · Rocco Bellantone^{1,2}

Table 1 Patients’ characteristics, operative data, and post-operative course

	Patient 1	Patient 2	Patient 3	Patient 4	Patient 5
Age (years)	73	30	65	57	78
Sex (male/female)	Female	Female	Female	Male	Female
Body Mass Index (Kg/m ²)	22,5	19,2	24,8	26,8	30
Diagnosis	Cushing’s syndrome	Para-adrenal tumour	Cushing’s syndrome	Pheochromocytoma	Cushing's syn- drome
Side (left/right)	Left	Left	Right	Left	Right
Tumour size (mm)	36	90	39	62	30
Docking time (min)	8	5	6	5	5
Robotic arms used	3	3	3	3	3
Console time (min)	54	108	55	61	29
Total operative time (min)	99	153	139	119	85
Arm collision instances	3	1	0	1	0
Intra-operative complications (yes/no)	No	No	No	No	No
Post-operative complications (yes/no)	No	Yes*	No	No	No
Length of hospital stay (days)	2	8	2	2	2
Final pathology	Adenoma	Pseudocyst	Adenoma	Pheochromocytoma	Adenoma

*Slight increase in plasma amylase levels which required fasting for a few days

Hugo™ RAS System: personal experience



Feasibility of Roux-en-Y Gastric Bypass with the novel robotic platform HUGO™ RAS

Marco Raffaelli^{1,2}, Nikolaos Voloudakis^{1,2}, Francesco Pennestri^{1,2*}, Pierpaolo Gallucci³, Cristina Modesti^{3,4}, Giulia Salvi^{1,2}, Francesco Greco¹ and Luigi Ciccioriti¹

¹U.O.C. Chirurgia Endocrina E Metabolica, Centro Dipartimentale Di Chirurgia Endocrina E Dell'Obesità, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome, Italy, ²Centro di Ricerca in Chirurgia Delle Ghiandole Endocrine e Dell'Obesità, Università Cattolica del Sacro Cuore, Rome, Italy, ³U.O.C. Anestesia Delle Chirurgie Generali e dei Trapianti, Fondazione Policlinico Universitario Agostino Gemelli IRCCS, Rome, Italy, ⁴Dipartimento di Scienze Biomediche di Base, Cliniche Intensivologiche e Perioperatorie, Università Cattolica del Sacro Cuore, Rome, Italy

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Introduction: Robotic assisted surgery is a rapidly developing field of minimally invasive bariatric surgery in the last 20 years. Its wide diffusion has led to the development and standardization of robotic assisted approaches for bariatric operations. In this study, we present the first four Roux-en-Y Gastric Bypass (RYGB) operations performed with the new Hugo™ RAS system (Medtronic, Minneapolis, MN, USA).

Methods: In January and February 2023, consecutive patients scheduled for minimal invasive Roux-en-Y-Bypass were selected and underwent the procedure robotic-assisted with the new platform. No exclusion criteria were applied.

Results: Four patients, two females and two males, underwent RYGB with a median BMI of 40 (range: 36–46) and diabetes mellitus in two cases. The median docking time was 8 min (range: 7–8.5) and the median console time was 127.5 min (range: 95–150). A description of the operating theatre, robotic arms and docking setup is provided. Procedures were performed without intraoperative complications and no conversion to laparoscopy or open surgery was noted. No additional ports were needed to be placed. System's function and docking were uneventful. No early post-operative complications were observed.

Conclusions: Based on our initial experience, RYGB with the Hugo™ RAS system is feasible. This study provides the configurations necessary to perform RYGB with the Hugo™ RAS system as well as general information and insights from our preliminary experience.

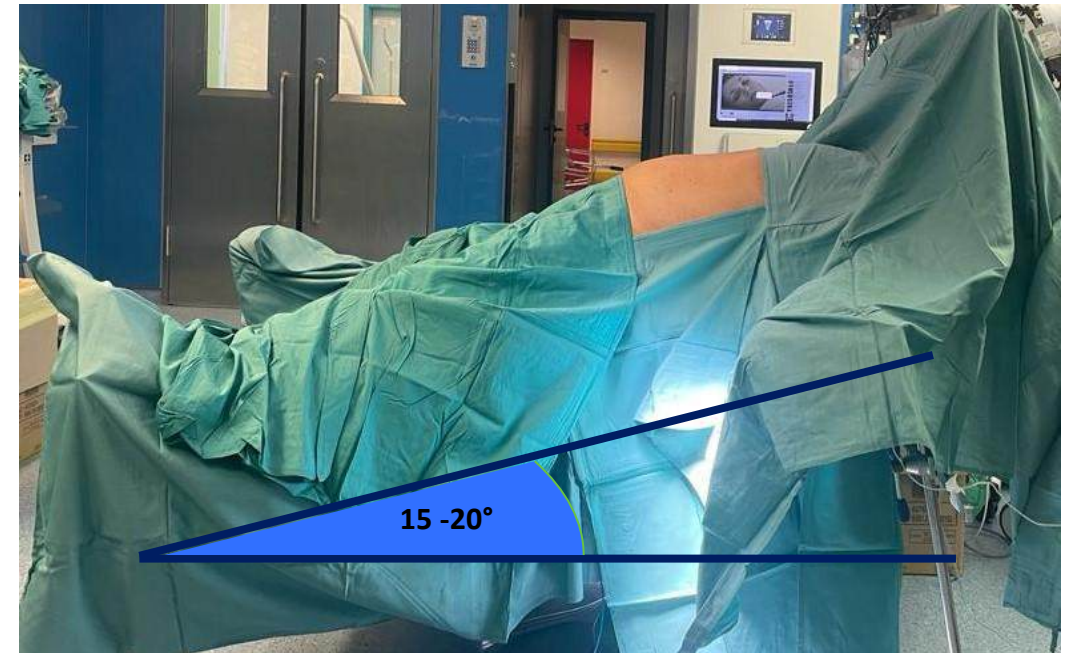
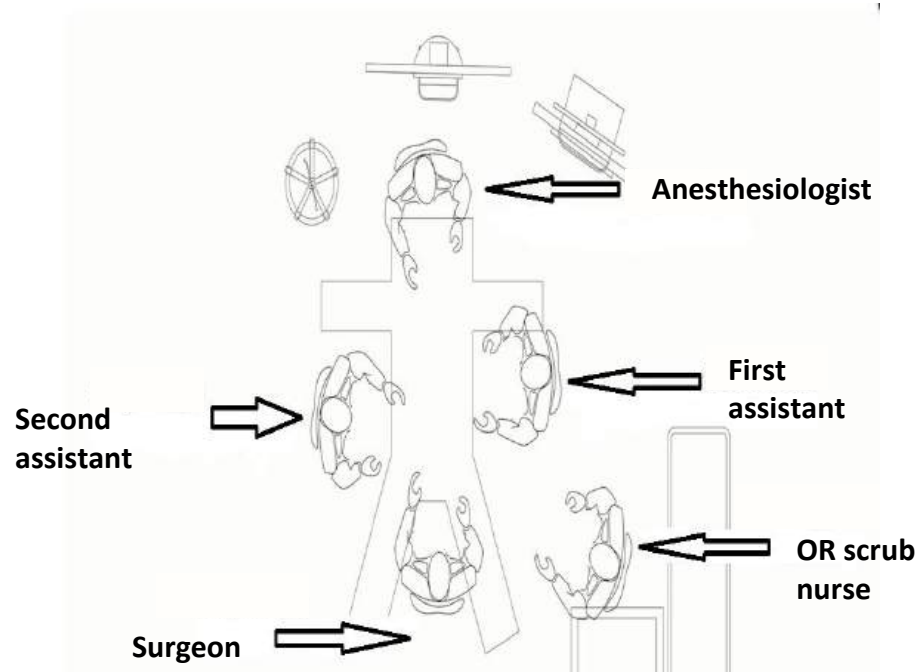
Standardization of Hugo™ RAS RYGB

Surgical steps (double loop-technique)

1. OR Set-Up & Patient Position
2. Trocars' placement
3. Laparoscopic exploration and identification of the biliary limb (optional)
4. Docking
5. Dissection of the angle of His and hiatus exploration
6. Creation of gastric pouch
7. Gastro-jejunal anastomosis
8. Alimentary limb identification and jejunio-jejunal anastomosis
9. Leak test and small bowel transection
10. Mesenteric defects closure
11. Closure

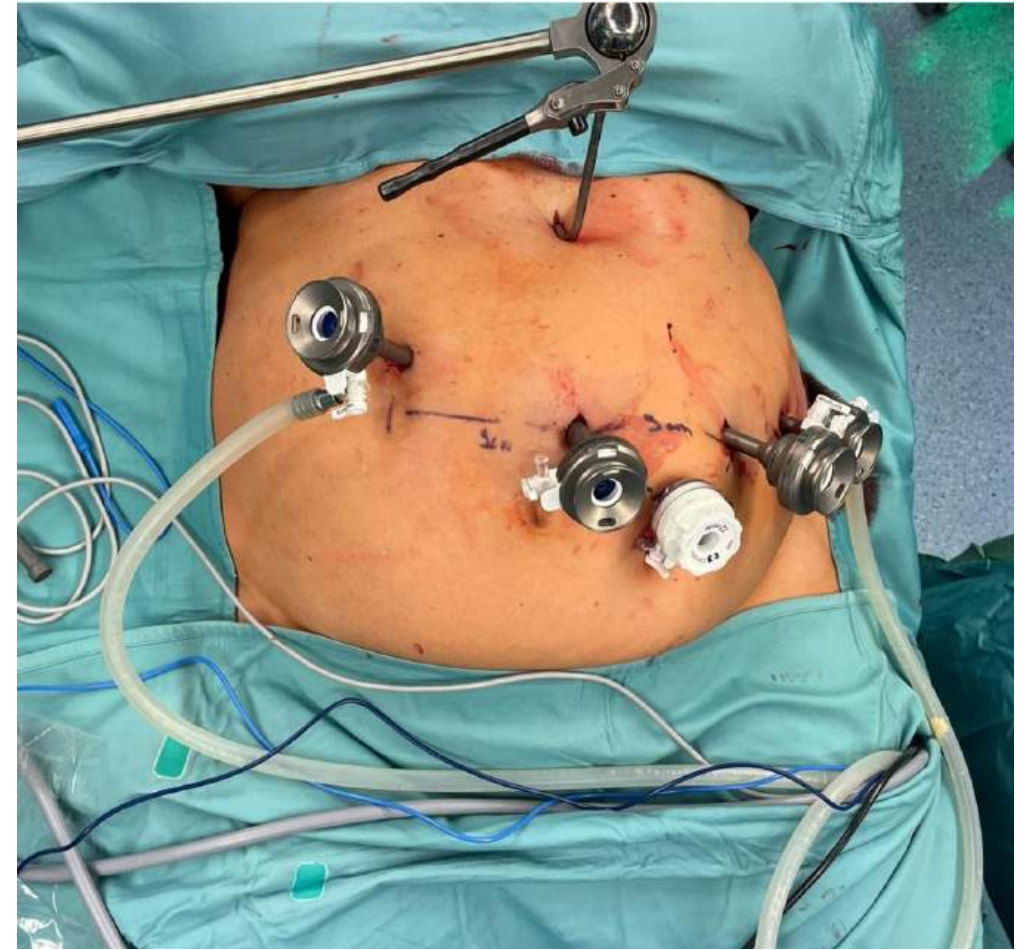
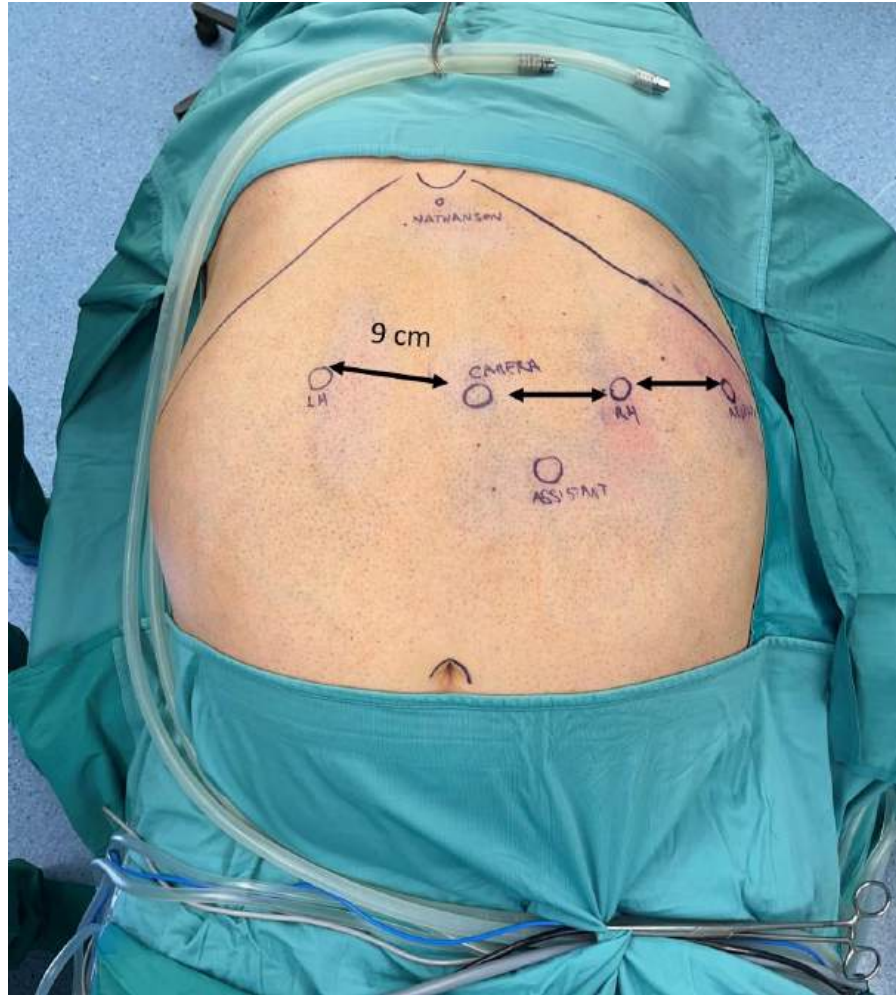
Focus on Robotic RYGB

OR Set-Up & Patient Position



- Supine french position
- Slight reverse-Trendelenburg (15-20°)

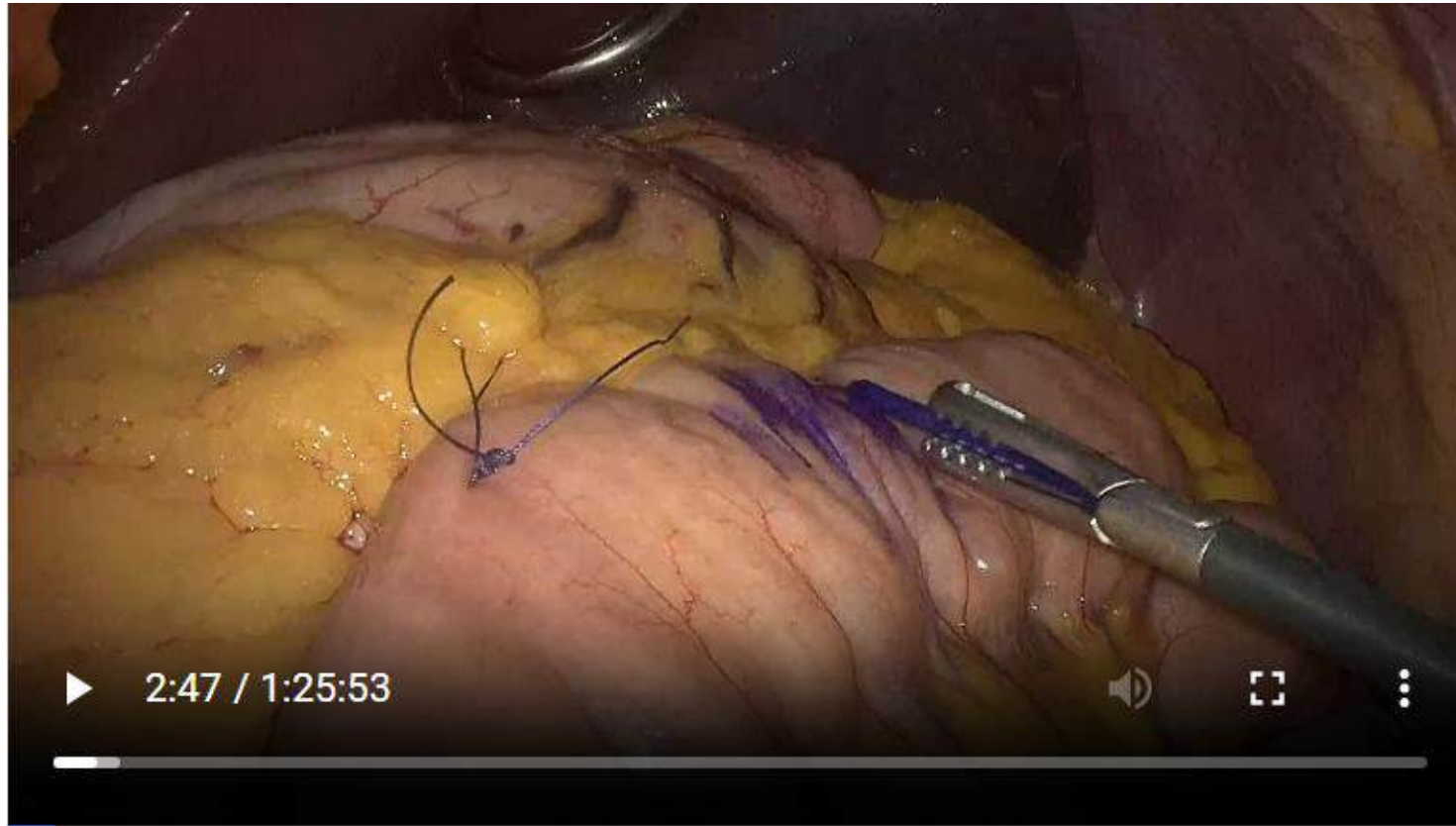
Trocar's placement



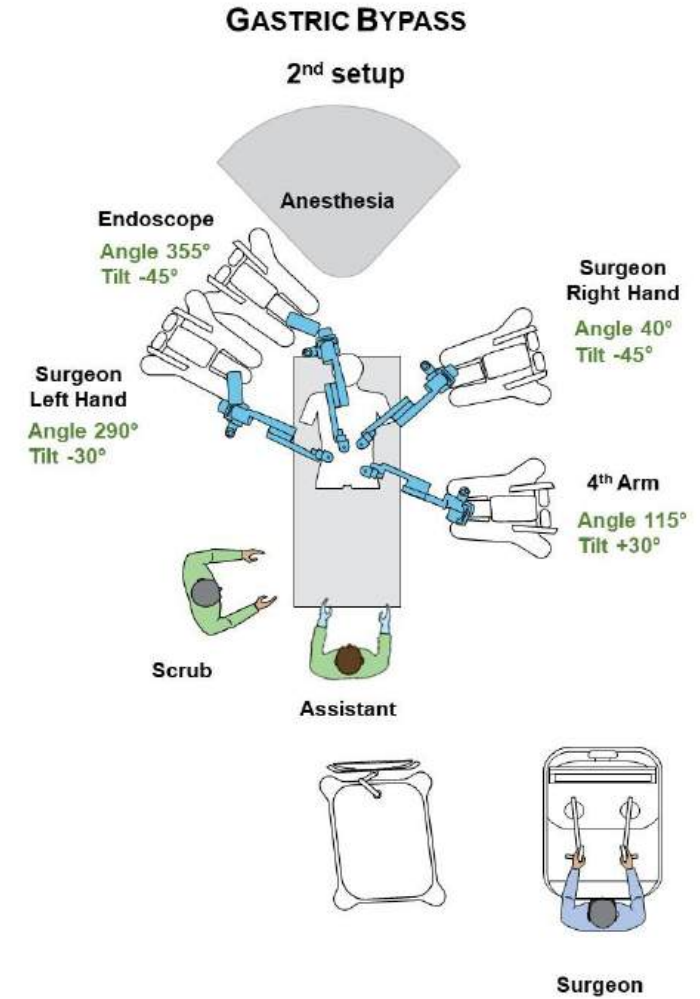
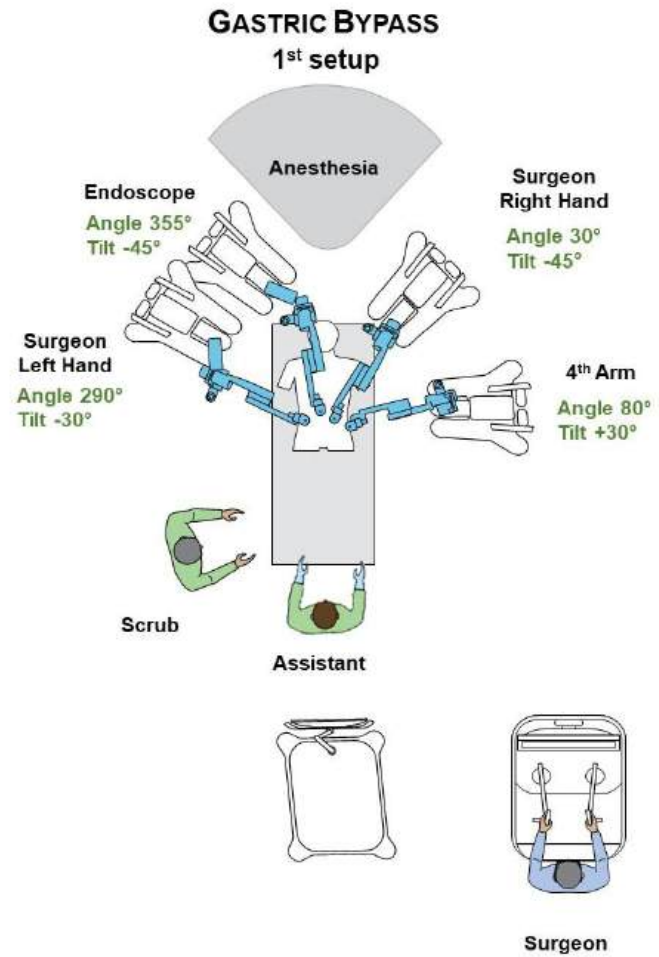
Hepatic retractor?



Laparoscopic exploration (and identification of the biliary limb)



OR Setup - Docking



OR Setup - Docking



OR Setup - Docking

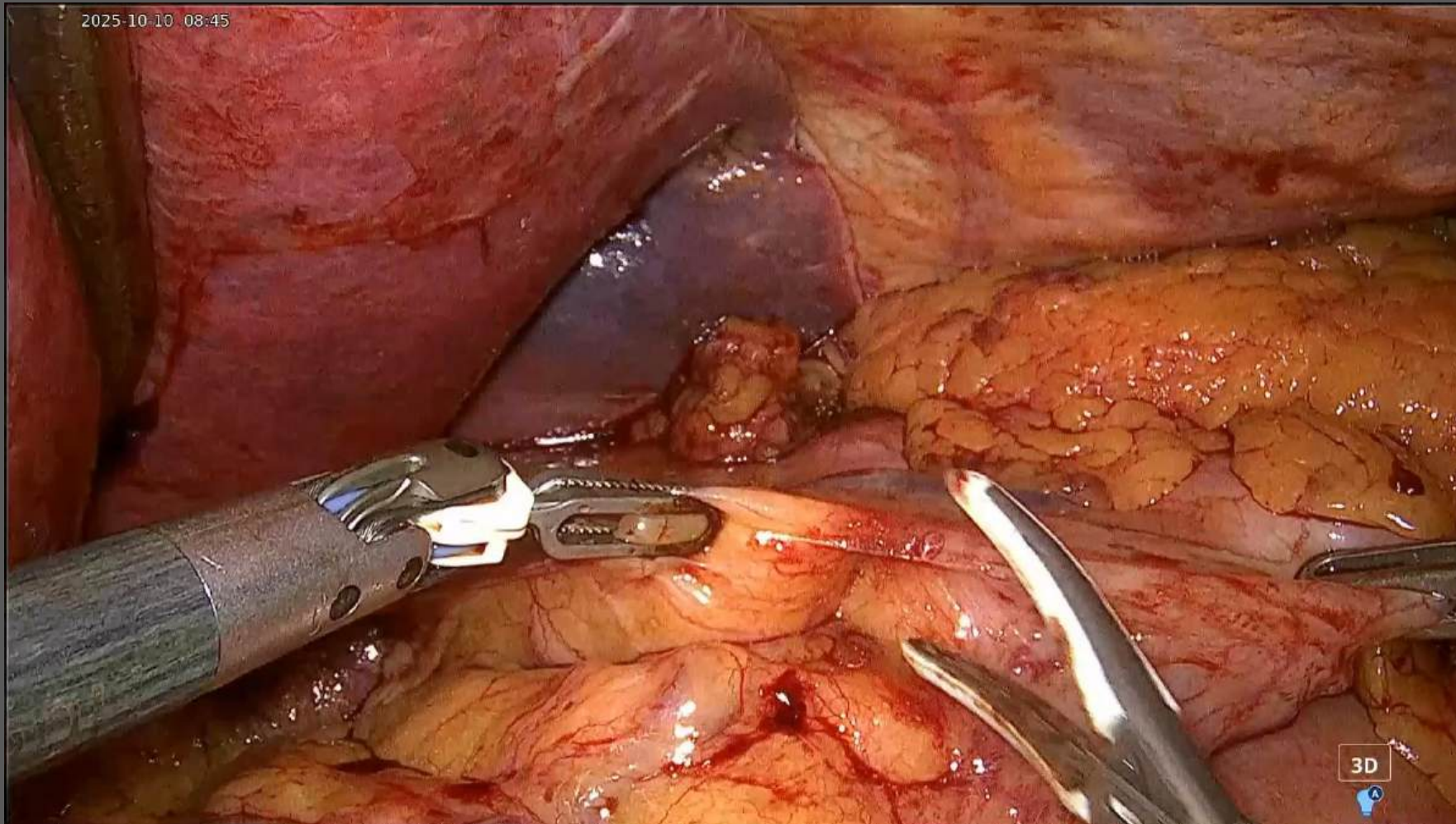
Hugo RAS



Surgical Procedure

Hugo™ RAS

Bedside assisted RYGB (2X) with Robotic LigaSure™



ORIGINAL ARTICLE



Robotic-assisted Roux-en-Y gastric bypass with the novel platform Hugo™ RAS: preliminary experience in 15 patients

Marco Raffaelli^{1,2} · Francesco Greco¹ · Francesco Pennestri^{1,2} · Pierpaolo Gallucci¹ · Luigi Ciccoritti¹ · Giulia Salvi^{1,2} · Priscilla Francesca Procopio^{1,2} · Nikolaos Voloudakis^{1,2}

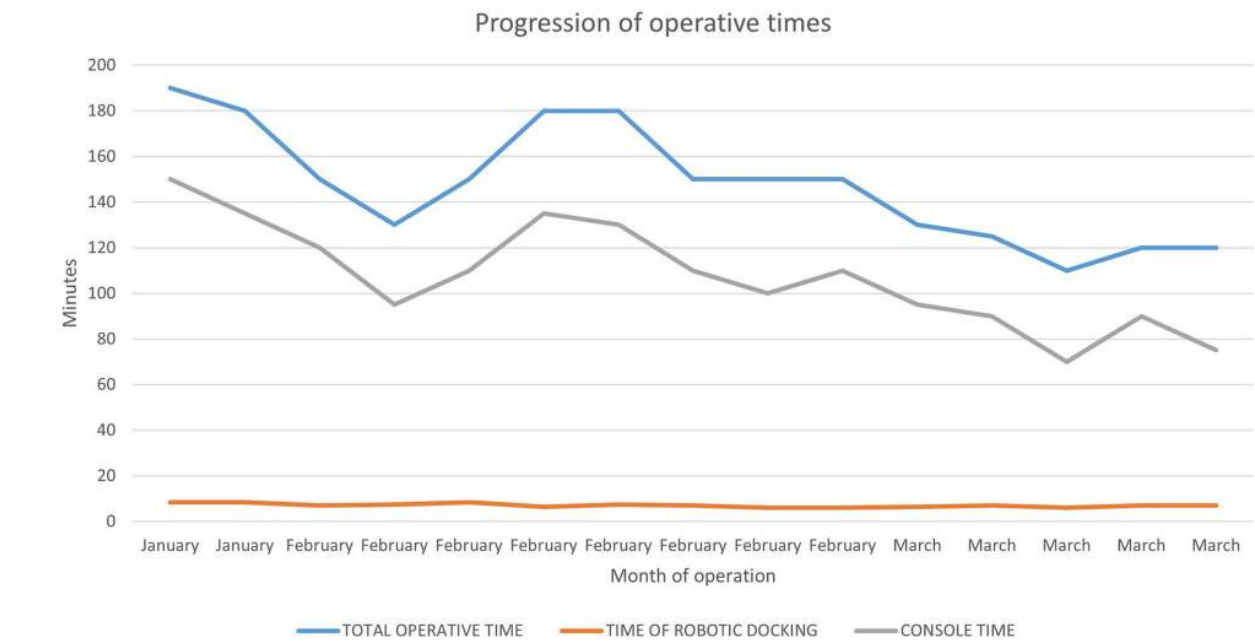
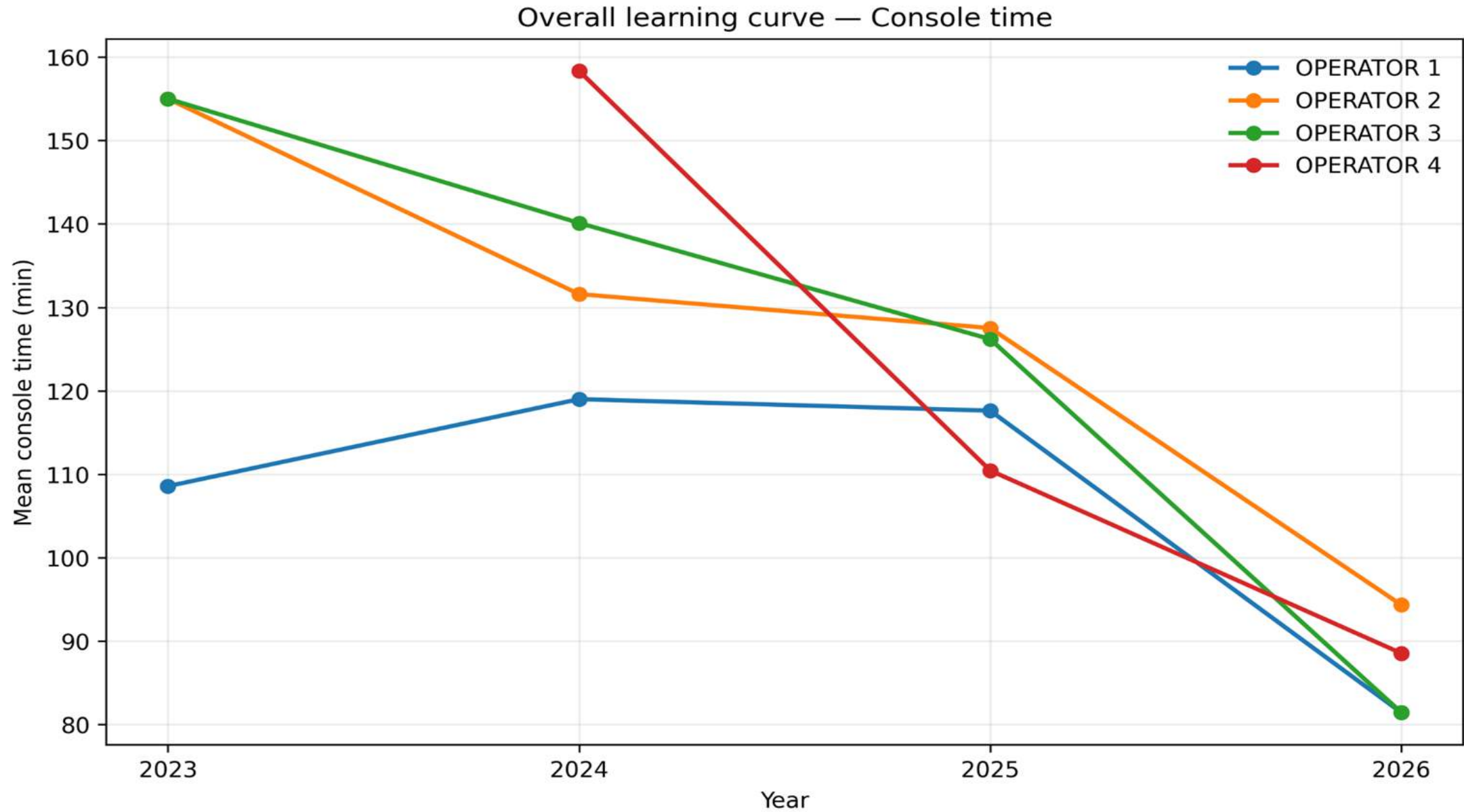


Table 1 Patients’ characteristics, operative data, and post-operative course

	n = 15
Age (years)	48 (31–65)
Median, range	
Sex (Male/Female)	7/8
Weight (kg)	131 (97–183)
Median, range	
Height (cm)	168 (156–196)
Median, range	
Body mass index (Kg/m ²)	42 (36–50)
Median, range	
Comorbidities (cases)	8
Previous abdominal surgery (open/laparoscopic)	4/2
Docking time (min)	7 (6–8.5)
Median, range	
Console time (min)	100 (70–150)
Median, range	
Total operative time (min)	150 (110–190)
Median, range	
Arm collision (cases)	2
Intra-operative complications	0
Post-operative complications	0
Length of hospital stay (days)	2 (1–3)
Median, range	

OPERATIVE TIME

01/2023 - 07/2026



SAFETY, EFFICACY, AND WEIGHT LOSS OUTCOMES OF ROBOTIC-ASSISTED ROUX-EN-Y GASTRIC BYPASS USING THE HUGO™ RAS PLATFORM: A MULTI-CENTER ITALIAN STUDY

MULTICENTER ITALIAN EXPERIENCE

Centri partecipanti

- 1  **Fondazione Policlinico A. Gemelli**
Roma
- 2  **Ospedale di Niguarda**
Milano
- 3  **Villa Lucia Hospital**
Puglia
- 4  **Policlinico di Sant'Orsola**
Emilia-Romagna
- 5  **Campus Biomedicus**
Roma
- 6  **Pineta Grande Hospital**
Caserta



- ✓ Retrospective database study of a prospective cohort with 1-year follow-up, multi-center study
- ✓ January 2023 - June 2025 RRYGB with HUGO™ RAS
- ✓ 1 year follow-up
- ✓ 6 high-volume bariatric surgery Italian Centers

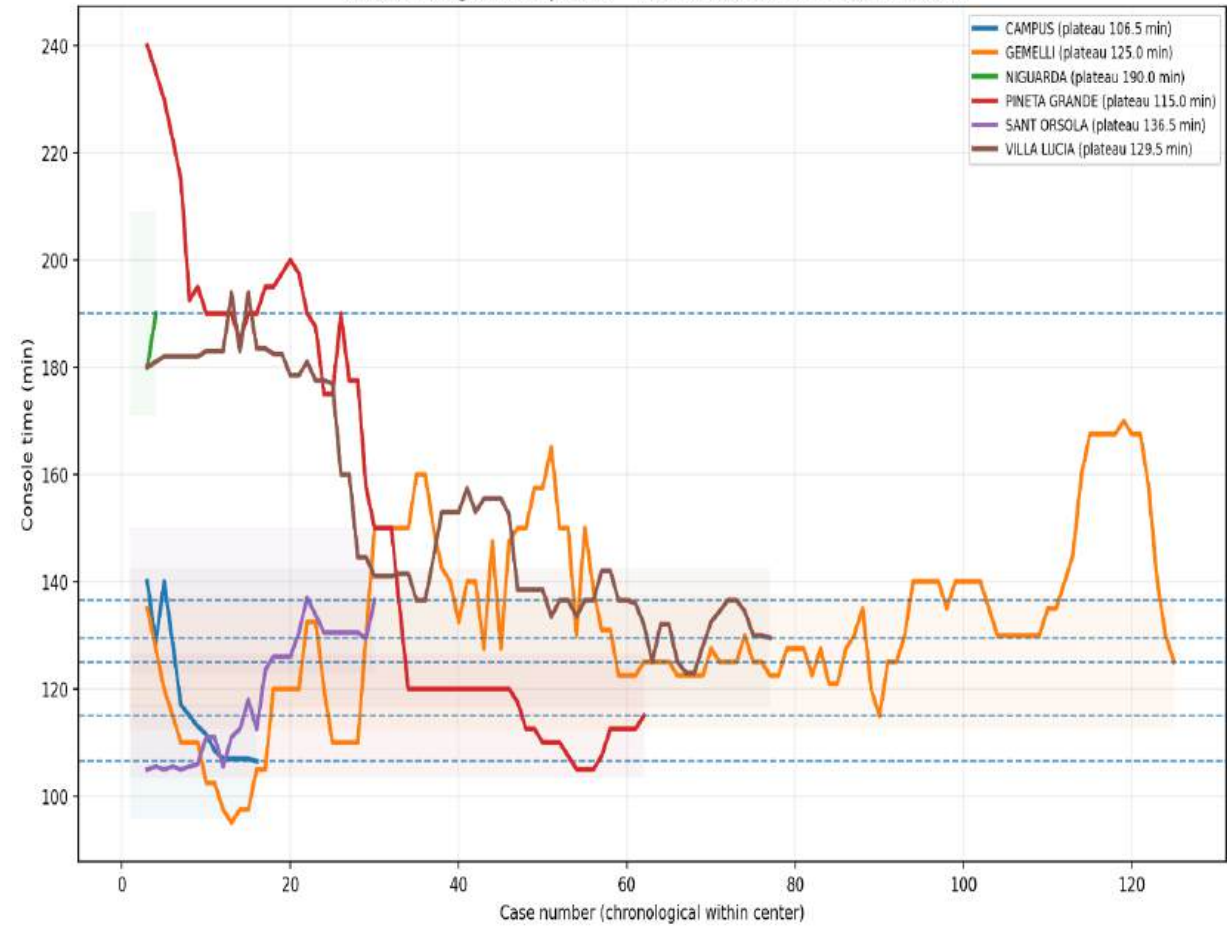
SAFETY, EFFICACY, AND WEIGHT LOSS OUTCOMES OF ROBOTIC-ASSISTED ROUX-EN-Y GASTRIC BYPASS USING THE HUGO™ RAS PLATFORM: A MULTI-CENTER ITALIAN STUDY

366 patients (2023-2025) with Fup ≥ 1 years

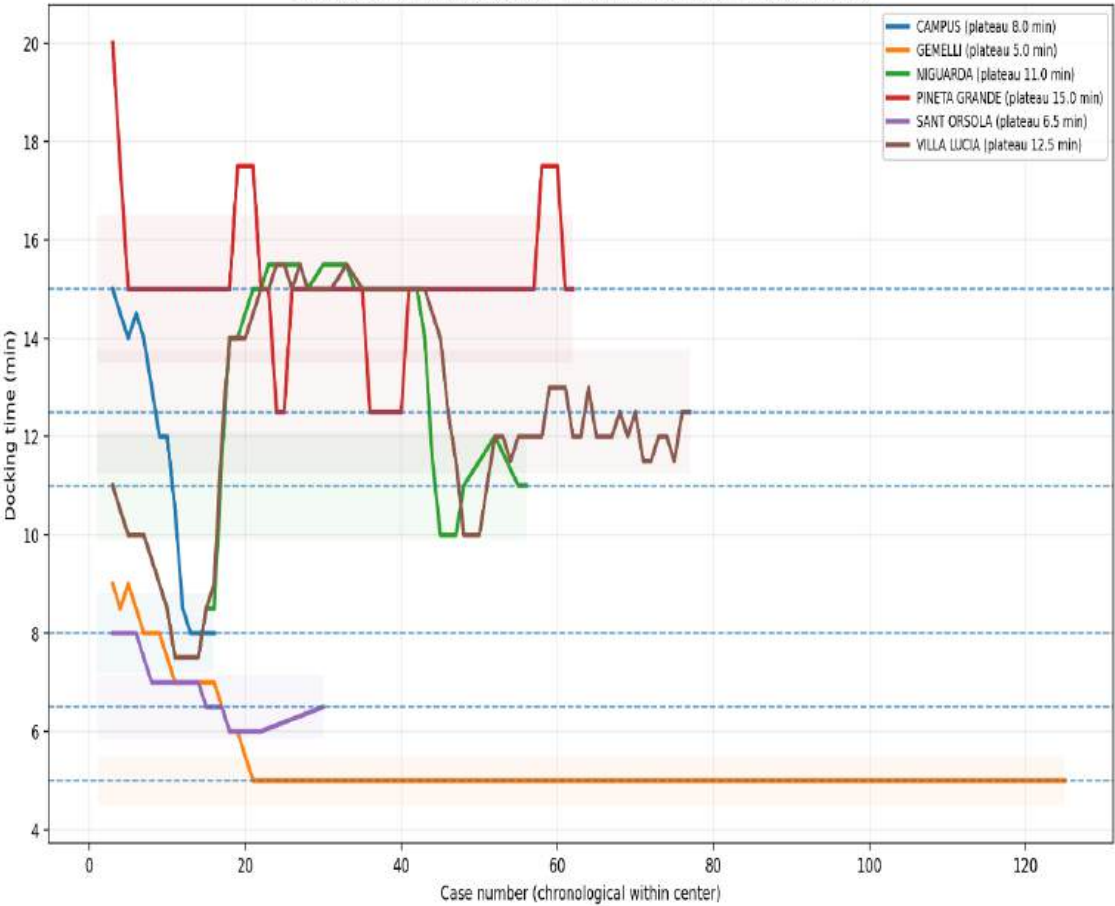
	All	Fond. A. Gemelli	Villa Lucia Hospital	Pol. Sant'Orsola	Niguarda Hospital	Pineta Grande Hospital	Campus Biomedico	P value
Number of patients	366 (100%)	125 (34.15%)	77 (21.04)	30 (8.2%)	56 (16.3%)	62 (16.9%)	16 (4.37%)	—
Mean age, (± SD), years	44.63 ± 12.3	48 ± 17.4	40,4 ± 17.1	48,6 ± 13.8	53 ± 10.2	36 ± 14.0	47 ± 16.9	<0.001
Gender Female/Male (%)	201(54.9%)/ 165(45.1%)	80 (64%)/ 45 (36.%)	17 (22.1%)/ 60 (77.9%)	20 (66.7%)/10 (33.3%)	13 (23.2%)/ 43 (76.8%)	58 (93.5%)/ 4(6.5%)	13 (81.2%)/ 3 (18.8%)	<0.001
Mean weight, (± SD, range) Kg/m2	114.2 ±20.7 [65-183]	117.9 ±19.44 [84.5-183]	115.6 ±24.4 [65-175]	113.9 ±20.7 [80-155]	114.9 ±25.1 [67-175]	106.4 ±10.7 [82-139]	107.2 ±16.9 [74-131]	0.010
Mean BMI, (± SD, range) Kg/m2	41.2 ±5.7 [24.4-57.4]	42.17 ± 4.93 [30.4-57.0]	42.12 ± 6.92 [24.9-57.6]	40.27 ± 5.52 [29.4-49.1]	41.79 ± 7.26 [24.9-57.6]	40.31 ± 2.60 [35.5 - 47.8]	39.61 ±7.05 [24.5-49.2]	0.124
Comorbidity, (%)								—
COPD, (%)	60 (16.4%)	25 (20.00%)	17 (22.08%)	5 (16.67%)	11 (19.64%)	0 (0.00%)	2 (12.50%)	0.008
Hypertension, (%)	103 (28.5%)	38 (30.40%)	21 (27.27%)	12 (40.00%)	17 (30.36%)	10 (16.13%)	5 (31.2%)	0.216
MRGE, (%)	19 (5.2%)	8 (6.40%)	0 (0.00%)	0 (0.00%)	11 (19.64%)	0 (0.00%)	0 (0.00%)	<0.001
Diabetes, (%)	62 (16.95%)	23 (18.40%)	9 (11.69%)	10 (33.33%)	11 (19.64%)	3 (4.84%)	6 (37.5%)	0.002
Previous abdominal surgery, (%)	93 (25.4%)	17 (13.6%)	0 (0.0%)	14 (46.7%)	32 (57.14%)	22 (35.5%)	8 (50.0%)	<0.001
Previous bariatric surgery, (%)	52 (14.2%)	5 (4.00%)	16 (20.78%)	11 (36.67%)	11 (19.64%)	3 (4.84%)	6 (37.50%)	<0.001

SAFETY, EFFICACY, AND WEIGHT LOSS OUTCOMES OF ROBOTIC-ASSISTED ROUX-EN-Y GASTRIC BYPASS USING THE HUGO™ RAS PLATFORM: A MULTI-CENTER ITALIAN STUDY
366 patients (2023-2025) with Fup ≥ 1 years

Console time learning curves by center
10-case rolling median; plateau = final 10-case median $\pm 10\%$ threshold



Docking time learning curves by center
10-case rolling median; plateau = final 10-case median $\pm 10\%$ threshold



* *Fondazione A. Gemelli is the only centre where RRYGBs were performed by 4 different surgeons during the period of study*

RESEARCH



Comparison between DaVinci® and Hugo™ -RAS Roux-en-Y Gastric Bypass in bariatric surgery

Francesco Pennestri^{1,2} · Giuseppe Marincola¹ · Priscilla Francesca Procopio^{1,2} · Pierpaolo Gallucci¹ · Giulia Salvi¹ · Luigi Ciccoritti¹ · Francesco Greco¹ · Marco Raffaelli^{1,2}

Abstract

The application of a robotic platform in the bariatric surgical field is intended to enhance the already established advantages of minimally invasive surgery in terms of both technical and clinical outcomes. These advantages are especially relevant for technically challenging multiquadrant operations such as Roux-en-Y Gastric Bypass (RYGB). Consequently, robotic-assisted surgery has emerged as a possible application for bariatric surgeries. The study attempts to assess feasibility and safety of the Hugo™-Robotic-Assisted Surgery System (Hugo™-RAS) platform compared to the DaVinci® Surgical System (DaVinci®-SS) with a focus on complication rates and operative times. We retrospectively reviewed bariatric procedures performed from January 2013 until December 2023. We included all robotic RYGBs performed using Hugo™-RAS and DaVinci®-SS platforms. The study utilized Propensity Score Matching (PSM) analysis to address bias in selection, matching patients based on age, gender, body mass index, comorbidities and past abdominal operations. One hundred thirty-five patients were identified: 90 DaVinci®-SS and 45 Hugo™-RAS procedures. After PSM, each group consisted of 45 patients. There was no discernible disparity observed in relation to early (≤ 30 days) postoperative complications rate ($p = 1$), mean operative time (for docking time, console time and total operative time: $p = 0.176$, $p = 0.678$, $p = 0.229$, respectively) and postoperative hospital stay ($p = 0.052$) between DaVinci®-RSS and Hugo™-RAS procedures. Our results suggest that application of both Hugo™-RAS and DaVinci®-SS robotic platforms to RYGB is related to comparable safety profiles. Although DaVinci®-SS remains the most widely adopted platform in clinical practice, this study underscores the potential role of the Hugo™-RAS to provide effective solutions in robotic bariatric procedures.

Variable	Hugo™ -RAS N = 45	DaVinci®-SS N = 45	p-value
Age, years (mean $\pm$ SD)	48.1 $\pm$ 10.8	46.3 $\pm$ 10.1	0.416
Gender, (M:F)	20:25	18:27	0.671
BMI, kg/m ² (mean $\pm$ SD)	42.1 $\pm$ 4.2	43.5 $\pm$ 5.2	0.163
Weight, Kg (mean $\pm$ SD)	121.9 $\pm$ 21.1	126.7 $\pm$ 23.2	0.307
Comorbidity, (n, %)	36 (80%)	30 (66.7%)	0.155
OSAS, (n, %)	8 (17.8%)	6 (13.3%)	0.563
Hypertension, (n, %)	18 (40%)	22 (48.9%)	0.398
Type 2 Diabetes Mellitus, (n, %)	10 (22.2%)	13 (28.9%)	0.509
NAFLD, (n, %)	25 (55.6%)	24 (53.3%)	0.833
Previous abdominal surgery			
Laparoscopic, (n, %)	6 (3.3%)	13 (28.9%)	0.075
Open, (n, %)	13 (28.9%)	6 (3.3%)	
Intra-operative complications (n, %)	1 (2.2%)	2 (4.4%)	1
Mean docking time (mean $\pm$ SD), min	5.6 $\pm$ 1.2	5.4 $\pm$ 0.5	0.176
Mean console time (mean $\pm$ SD), min	131.6 $\pm$ 34.8	144.4 $\pm$ 46.9	0.678
Mean total operative time (mean $\pm$ SD), min	166.9 $\pm$ 39.9	179.8 $\pm$ 47.1	0.229
Post-operative ICU, (n, %)	1 (2.2%)	2 (4.4%)	1
Post-operative hospital stay, days (Median, IQR)	2 (1–2)	2 (2–2)	0.052
Post-operative NRS (mean $\pm$ SD)	3.6 $\pm$ 1.8	3.6 $\pm$ 1.6	1
Patients with early complications, (n, %)	3 (6.7%)	3 (6.7%)	1
Readmission, (n, %)	2 (4.4%)	1 (2.2%)	1

RYGB Roux-en-Y Gastric Bypass; *RAS* robotic-assisted surgery; *SS* surgical systems; *SD* standard deviation; *IQR* 75% interquartile Range; *BMI* body mass index; *OSAS* obstructive sleep apnea syndrome; *NRS* numeric rating scale

ROBOTIC RYGB

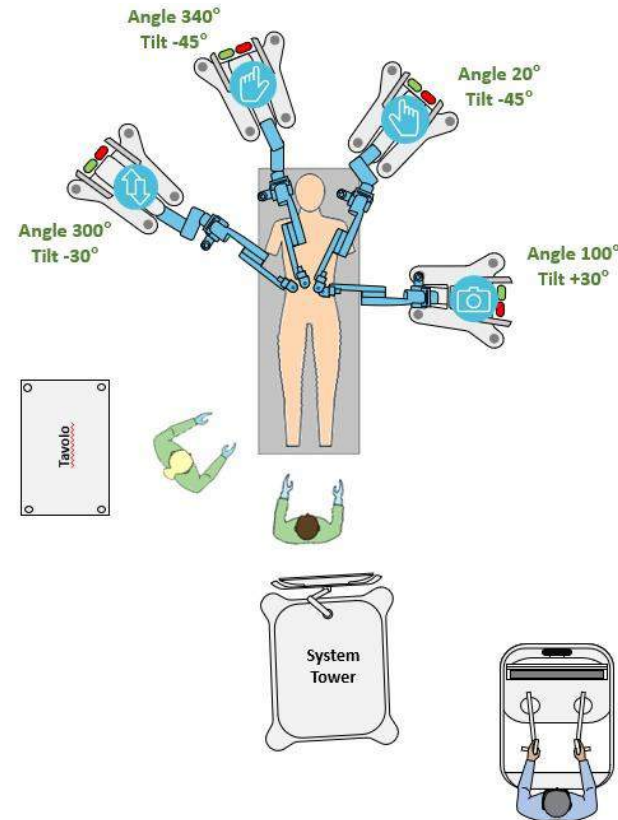
01/2023 - 07/2026

	Da Vinci Xi	Hugo™ RAS	Toumai®	P value
Patient, n	189	232	33	
Mean age (± SD), years	49.6 ± 11.2	46.3 ± 10.7 (21–70)	47.2 ± 9.30	0.008
Sex (%), male / female	28.5% / 71.4%	31.9% / 61%	30.7% / 69.3%	0.726
Mean BMI ± SD (range), kg/m²	42.4 ± 5.2	42.1 ± 5.2 (30.4–57.2)	41.4 ± 10.6	0.629
Mean weight ± SD (range), kg*	129 ± 23	118.0 ± 19.7 (84.5–195)	110.2 ± 15.4	<0.001
Comorbidity, n (%)	85 (45.3%)	120 (52.8%)	14 (42.4%)	0.303
Previous abdominal surgery, n (%)	39 (21.3%)	52 (22.4%)	13 (39.4%)	0.590
Mean total operative time ± SD (range), min	135 ± 36 (90–320)	145.1 ± 38.9	130 ± 52 (82–385)	0.110
Mean console time ± SD, min	102.4 ± 21.5	119.6 ± 31.2	101 ± 32	0.001
Early complications				
Overall complications, n (%)	7 (3.7%)	9 (3.88%)	1 (3%)	1.000
Anastomotic leak	2 (1%), CD IIIB	2 (0.8%), CD IIIB	1, CD IIIB	0.438
Bleeding	1 (0.5%), CD IIIB	1 (0.4%), CD IIIB	0	1.000
Adhesive small bowel obstruction	1 (0.5%), CD IIIB	1 (0.4%), CD IIIB	0	1.000
Abdominal fluid collection	1 (0.5%), CD I	2 (0.8%), CD II	0	1.000
Incisional hernia	0	1 (0.4%), CD IIIB	0	1.000
Melena	2 (1%), CD I	2 (0.86%), CD I	0	1.000
Late complications				
Overall complications, n (%)	3 (1.6%)	7 (3.45%)	1 (3%)	0.541
Internal hernia	1 (0.5%), CD IIIB	4 (1.7%), CD IIIB	0	0.579
Anastomotic stenosis	1 (0.5%), CD IIIB	2 (0.8%), CD IIIA	1, CD IIIA	0.358
Pouch ulcer	1 (0.5%), CD I	1 (0.4%), CD I	0	1.000
Adhesive small bowel obstruction	1 (0.5%), CD IIIB	1 (0.4%), CD IIIB	0	1.000

Trocars' positioning - OR Setup - Docking



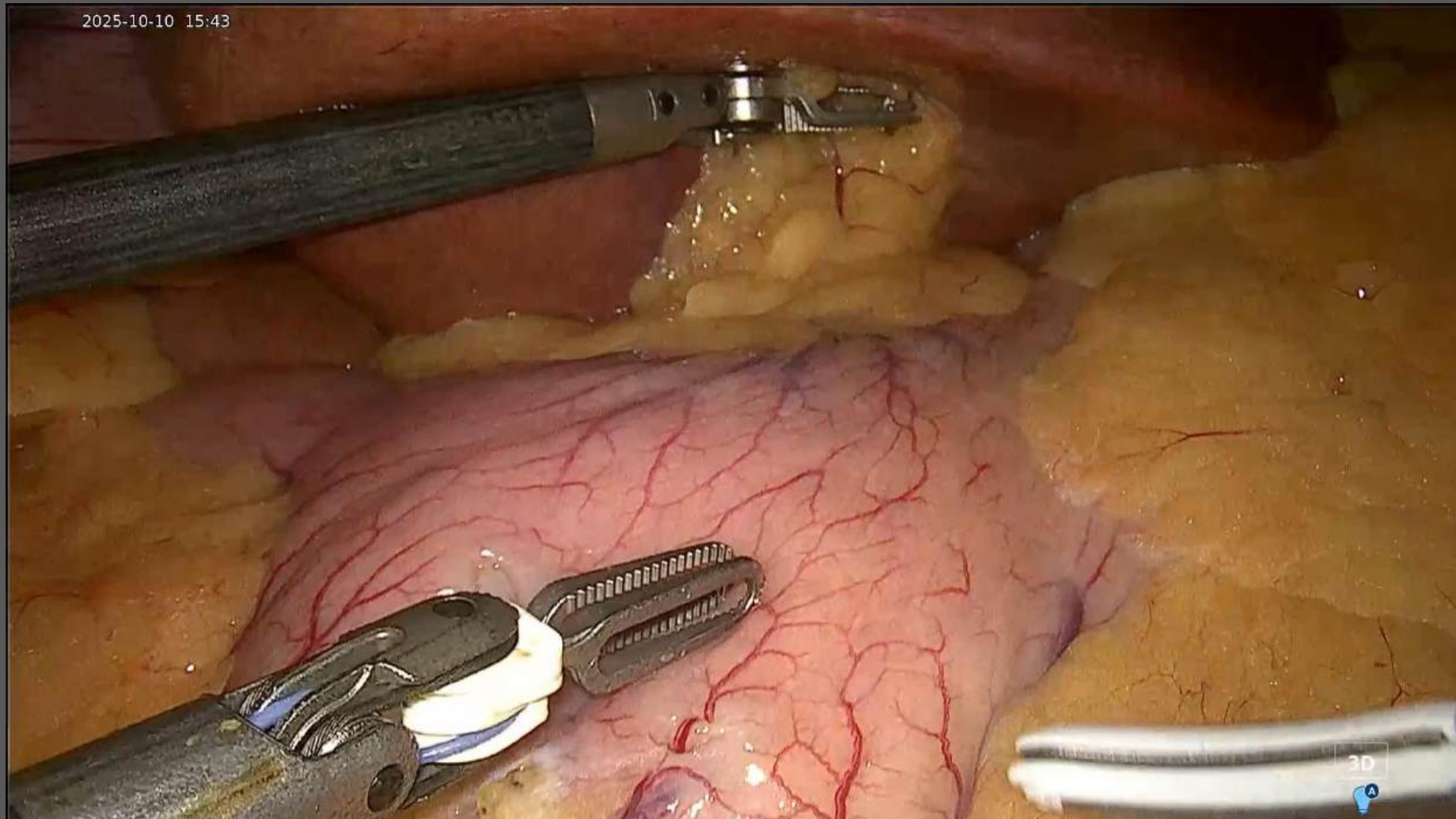
SG – TBP – (SADIS)



Surgical Procedure

Hugo RAS

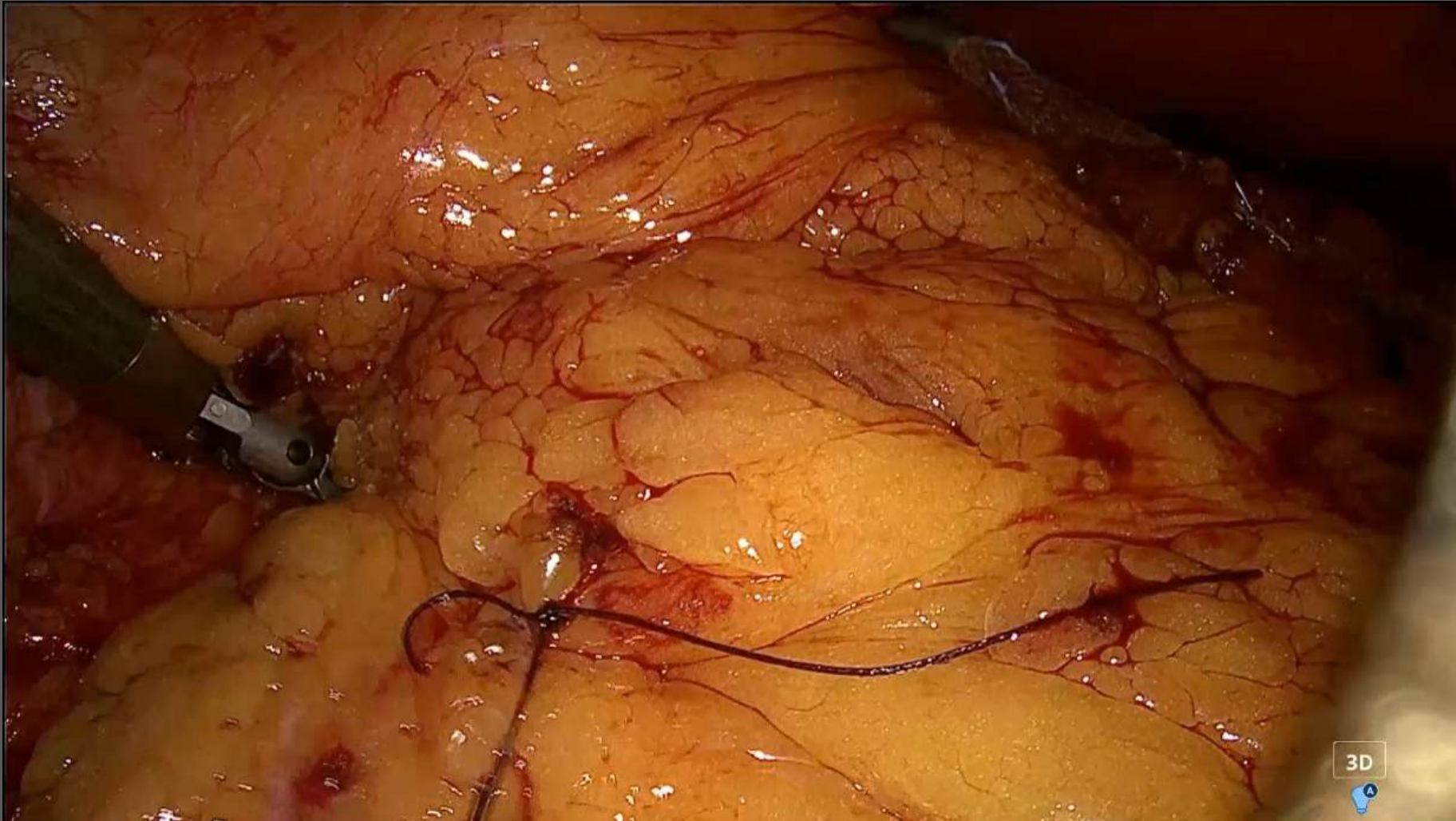
Bedside assisted SG (2X) with Robotic LigaSure™



Surgical Procedure

Hugo RAS

Bedside assisted TBP (2X) with Robotic LigaSure™



Hugo™-RAS IN BARIATRIC SURGERY

01/2023 - 07/2026

Patients	232 RYGB	5 Sleeve gastrectomy	1 Transit bipartition	2 OAGB
Mean age (± SD) years	46.3 ± 10.7 (21-70)	26.25 ± 10.9 (20–43)	62	57.5 ± 9.2 (51-64)
Sex (%): male / female	31.9% / 61%	40%) /60%	0/ 100%	50%/50%
Mean BMI ± SD, (range) Kg/m2	42.1 ± 5.2 (30.4-57.2)	44.9 ± 5.7 (36.7–51.1)	59,6	131 ± 1.41 (130-132)
Mean weight (± SD), (range) Kg/m2	118.0 ± 19.7 (84.5-195)	123 ± 19.8 (100-147)	62	46.3 ± 6.4 (50.8 -41.7)
Comorbidity (n, %)	120 (52.8%)	1 (0.4%)	0	2 (100%)
Hypertension (n, %)	66 (28.4%)	1 (0.4%)	0	0
OSAS (n, %)	39 (16.8%)	0	0	1 (50%)
Type 2 Diabetes Mellitus (n, %)	47(20.2%)	0	0	1 (50%)
Previous Abdominal Surgery (n, %)	52 (22.4%)	0	1	1 (50%)
Intraoperative complications (n. %)	2 (0.86%)	1 (0.4%)	0	0
Postoperative ICU stay (n., %)	3 (1.2%)	0	0	0
Mean total operative time (± SD) (range), min	145.1 ± 38.9 (69–315)	80.0 ± 20.0 (60–110)	214	108.5 ± 19.1 (95–122)
Mean docking time (± SD) (range), min	5.8 ± 1.2 (4–15)	5.25 ± 0.50 (5–6)	6	6.5 ± 2.1 (5–8)
Mean console time (± SD), min	119.6 ± 31.2 (50–230)	60.0 ± 21.6 (40–90)	181	84.0 ± 7.1 (79–89)

HUGO™ RAS

- In our experience robotic bariatric surgery is feasible and safe with Hugo™ RAS Platform
- Replicable in different setting: relatively easy standardization and learning curve
- Advantages:
 - Vision for the surgical team (training, proctoring)
 - Suturing
 - Modularity
 - Sustainability
 - Easy shift from one platform to the other
 - Touchsurg App
- Still some limitations (manual docking, arms' size, lack of articulated energy device, lack of robotic stapler)....Medtronic needs to work on that



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24-27 August 2027

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