15 years of OAGB, 10000 cases lessons learned where we burned our fingers

DR. MAHAK BHANDARI

Pro Chancellor (Sri Aurobindo University, Indore)
Professor, Department of General Surgery, Sri Aurobindo Medical College & PG Institute, Indore (MP)
Director, Bhandari Hospital & Research Center, Indore (MP)
Director, Mohak Hi-Tech Specialty Hospital, Indore

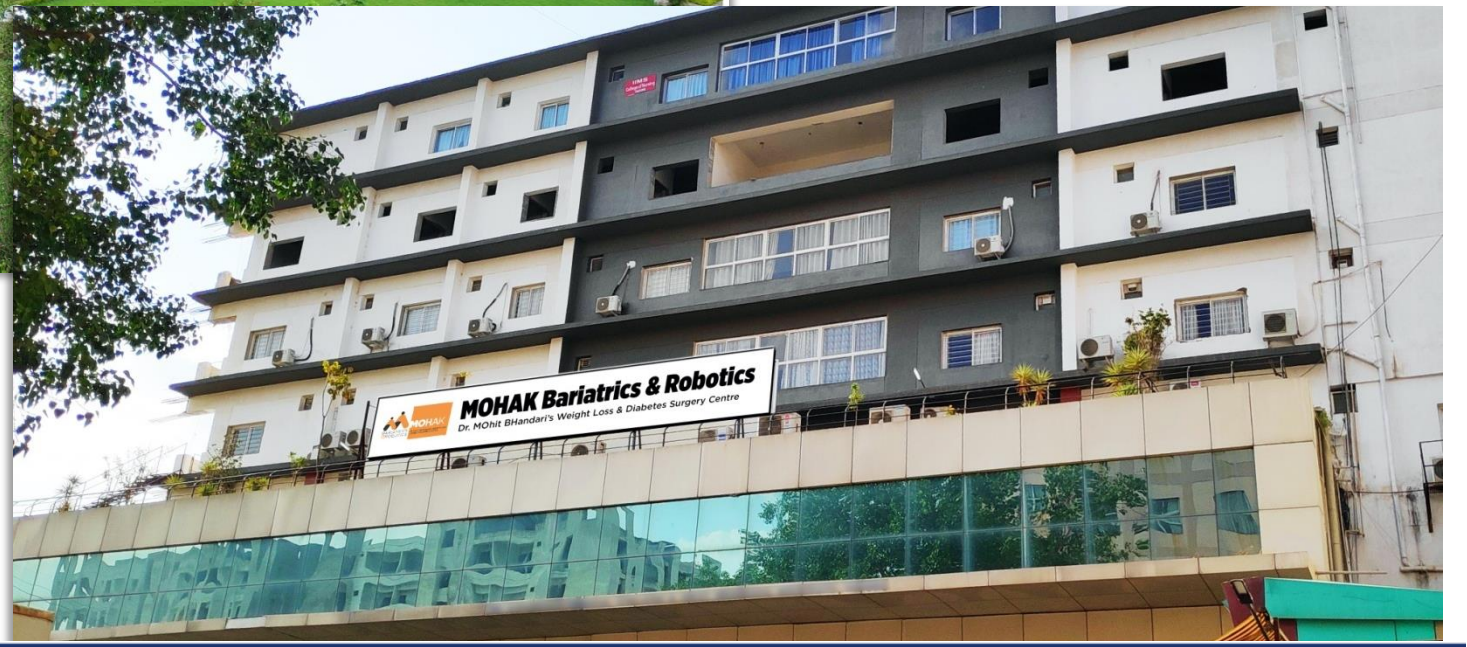
SRI AUROBINDO UNIVERSITY

VISION WITH ACTION

← INDORE, INDIA

MOHAK BARIATRIC AND ROBOTIC SURGERY CENTER INDORE, INDIA (MBRSC)

→



MOHAK BARIATRICS ROBOTICS WEIGHT LOSS & DIABETES SURGERY CENTRE

Dr Manoel Galvao Neto

Clinical Director- Dept Bariatric Endoscopy

Mohak Bariatric and Robotic Surgery Center

Indore- Mumbai- Hyderabad- Bangaluru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DISCLOSURE

Mohit Bhandari MD

Consultant to:

- Johnson and Johnson
- Medtronic
- Bariatric Solution
- Intuitive Surgical
- Karl Storz
- Stryker
- Apollo Endo-surgery
- Pentax
- Olympus

Mathias Fobi MD FACS, FICS, FACN

- Founding President, Bariatec Corporation

Manoel Galvao Neto

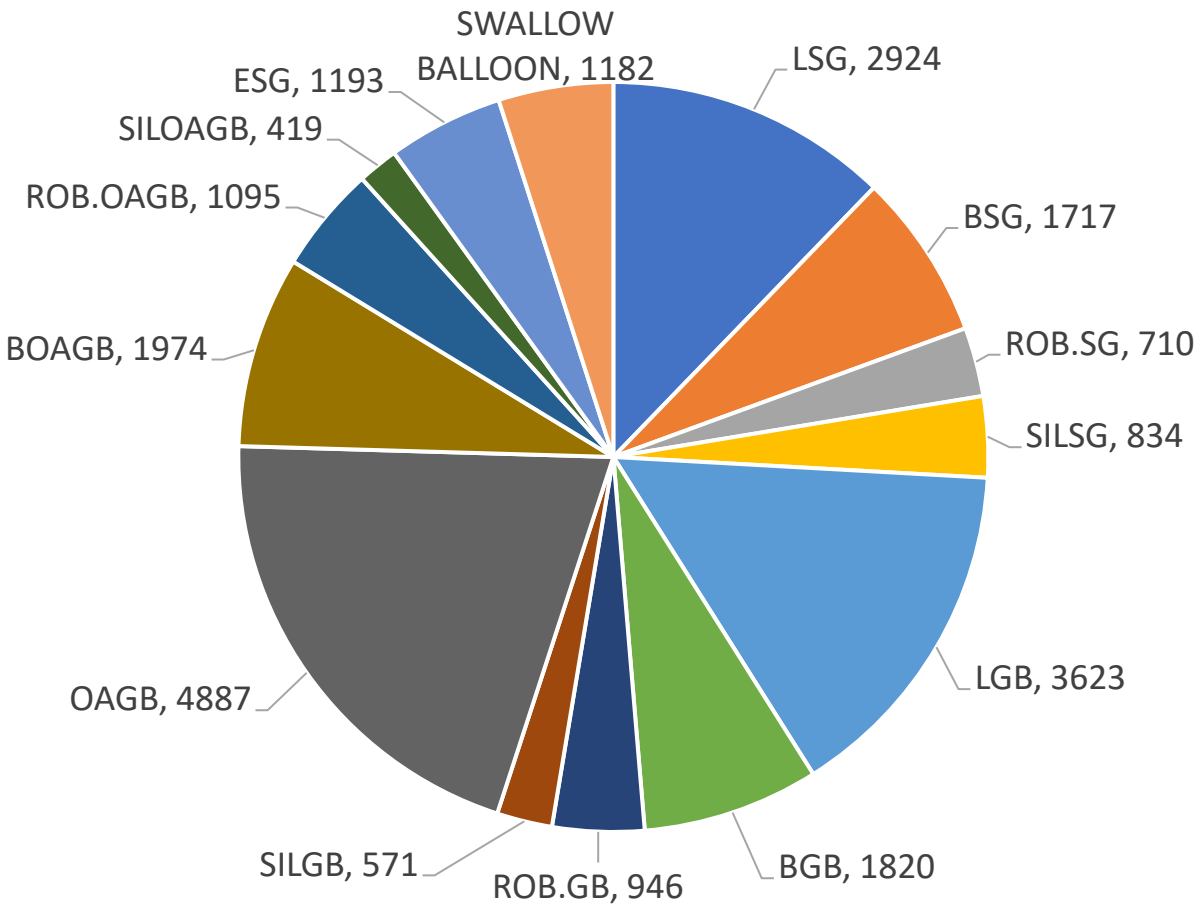
- Director Bariatric Endoscopy

CASE MIX DISCLOSURE

2010- 2024

BARIATRIC PROCEDURES MIX DISCLOSURES MBRSC
January 2010 – July 2024

TOTAL	25400
LSG	6185
LGB	6960
OAGB	8375
ESG	1193
SWALLOW BALLOON	1182
Other	1505



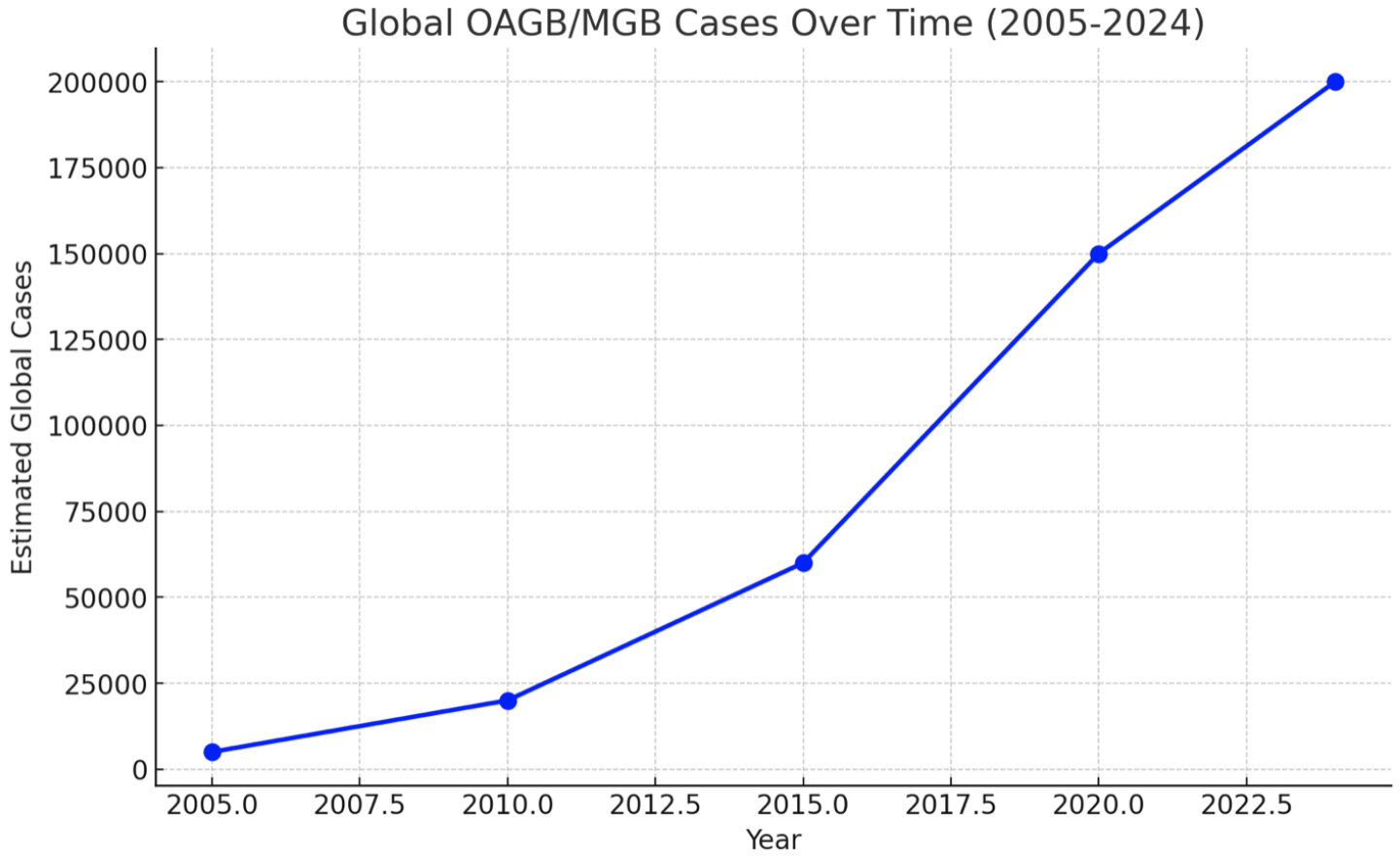
- OAGB is a safe and effective operation for obesity.

- OAGB is reported to have the following benefits:
  - Technically easy
  - Amenable to re-intervention
  - Better food tolerance
  - Less Complications
  - Higher Weight loss and maintenance
  - Better resolution of Co-morbid conditions

- *Sjo¨stro¨m L. Swedish Obese Subjects Study Scientific Group. Lifestyle, DM & CVD risk factors 10 years after bariatric surgery. N Engl J Med 2004*
- *Mahdieh G. The bariatric surgery and weight losing: a meta-analysis. Surg Endosc 2017*
- *Carbajo et al. LOAGB: technique, results and long term FU in 1200 pts. Obes Surg.2017*
- *Musella et al. MGB, Italian experience: outcome from 974 cases. Surg Endosc 2014*

MGB/OAGB increasingly performed in various places around the world

India, England, Spain, Turkey, Lebanon, Italy, Taiwan, Germany & Greece



Here's a graphical representation showing the estimated global growth of OAGB/MGB cases from 2005 to 2024. As you can see, the number of cases has steadily increased over the years, reflecting the procedure's growing popularity worldwide. [>-]

Planned and Metered growth of the MOHAK program

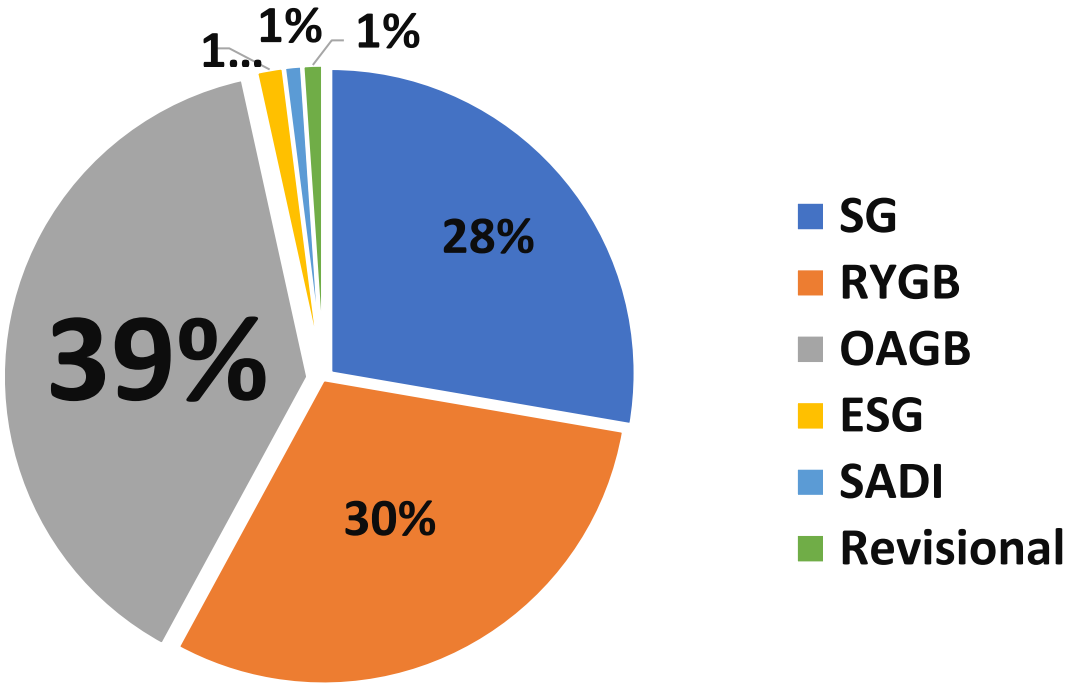
1	• Sleeve Gastrectomy (SG)	2010
2	• Gastric Bypass (GBP)	2011
3	• **One Anastomosis Gastric Bypass (OAGB)**	**2012**
4	• Band Sleeve Gastrectomy (BSG)	2011
5	• Band Gastric Bypass (BGBP)	2011
6	• Single Incision laparoscopic Surgery (SILS)	2012
7	• Robotic Approach	2013
8	• Bariatric Endoscopy	2017
9	• Endoscopic Sleeve Gastroplasty	2017
10	• **Banded One Anastomosis Gastric Bypass (BOAGB)**	**2017**
11	• Swallow Balloon	2021

Percentage Wise Distribution

MBRSC January 2010- 2024

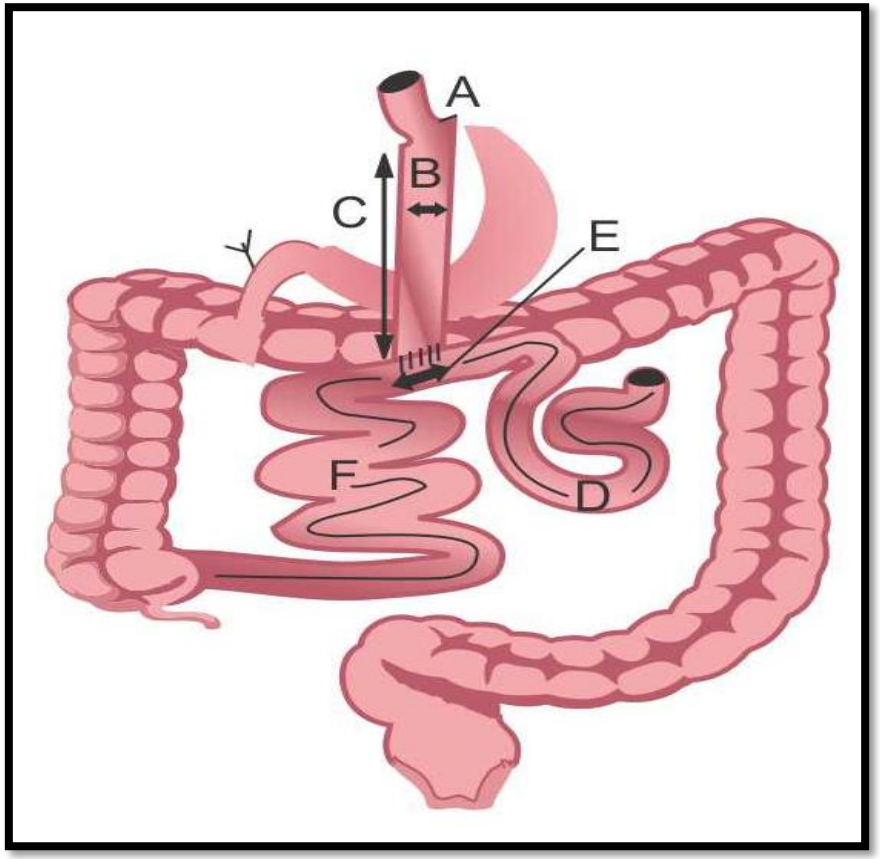
OAGB-MGB Procedures = 7455

Procedure	Method	Number
OAGB (5182)	Laparoscopic	4187
	Robotic	995
Banded OAGB (2273)	Laparoscopic	2273
TOTAL		**7455**



PROCEDURES

OAGB-MGB



A=1cm------Distance away from EG Junction
B=2.5cm----Width of the pouch
C=15-18cm-Length of the pouch
D=250cm---Bilio-pancreatic Limb
E=3-4cm----width of Gastro-enterostomy
F=?? -- ----common limb not easured
V=75-90cc--Volume of the pouch

MOHAK ALGORITHM

One Anastomosis Gastric Bypass-Mini-Gastric Bypass (OAGB-MGB)

- Have T2DM with HgbA1c ≥ 8 and duration>5 years
- Have No GERD
- Are Non-vegetarian
- Have poor dentition
- **Most likely to return for follow up at the clinic**
- No H/O alcohol intake
- No Nicotine addiction (smoking)
- Normal LFTs.
- No NASH at surgery or cirrhosis
- **Commitment by our program to have 100% follow up of theses patient**

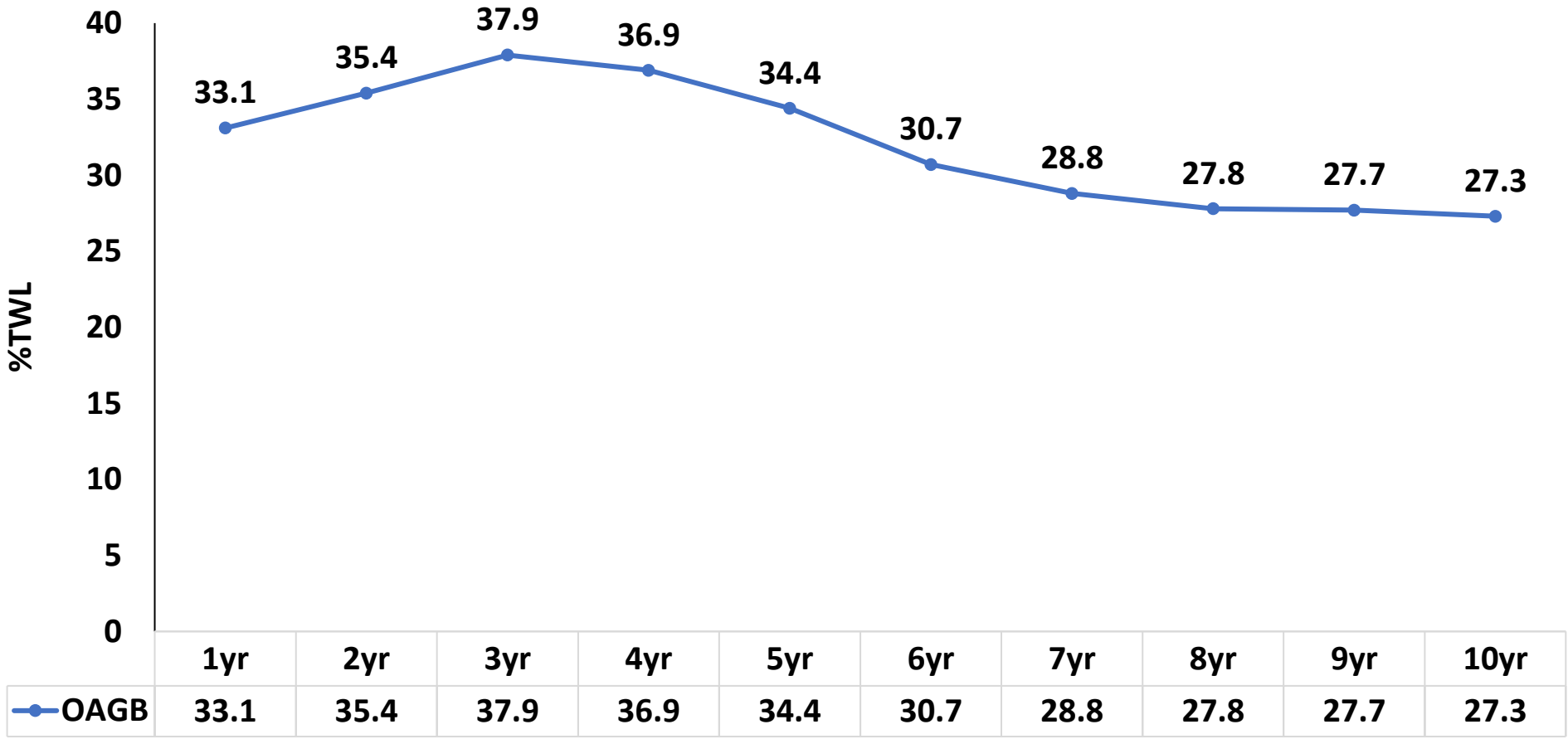
MOHAK Data (OAGB/MGB)

Patient Profile

Age (yr)	44.0±10.9
Body Weight (kg)	130.8±23.5
Height (cm)	1.7±0.1
BMI (kg/m^2)	46±6.9
Diabetes	47.7%
Hypertension	54.4%
OSA	86.6%
Dyslipidemia	75.5%

MOHAK Data (OAGB/MGB)

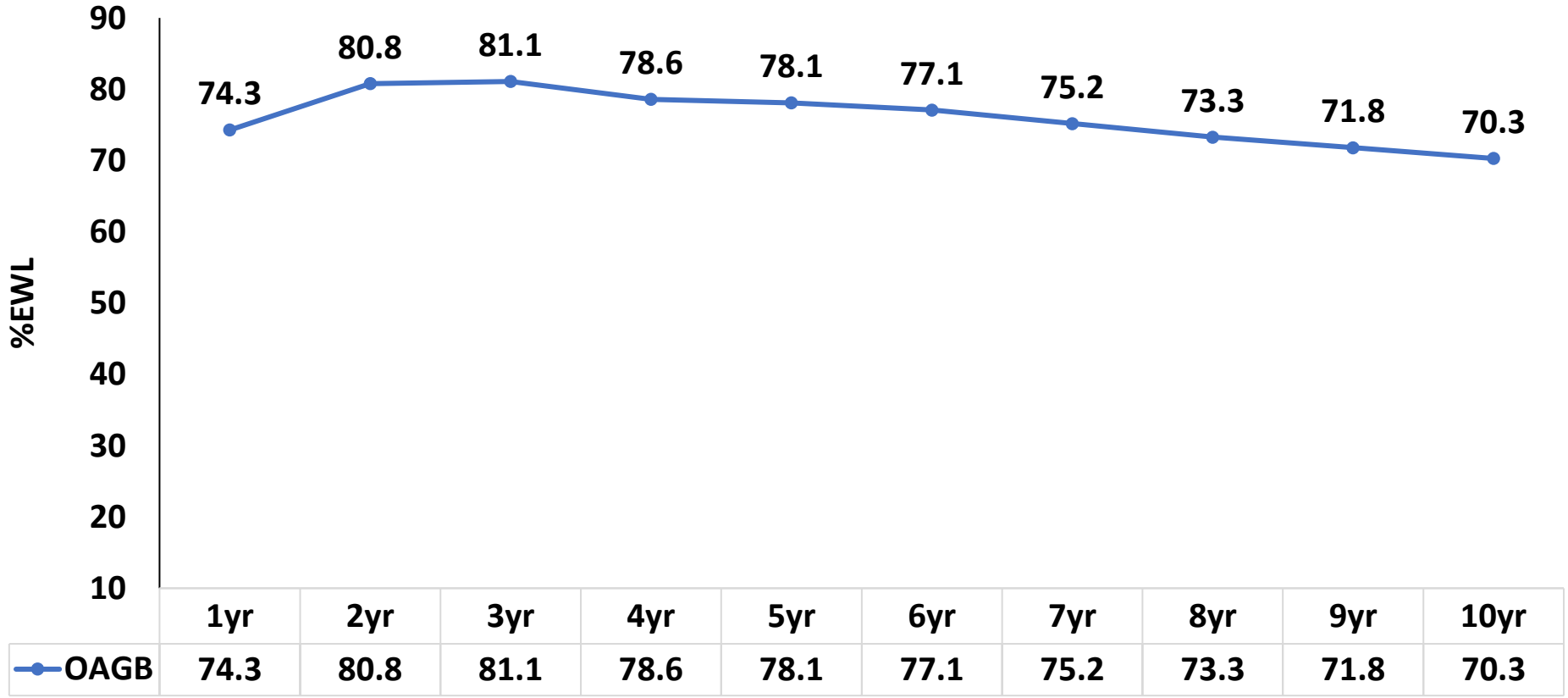
OAGB-MGB: %TWL



	1yr	2yr	3yr	4yr	5yr	6yr	7yr	8yr	9yr	10yr
OAGB	33.1	35.4	37.9	36.9	34.4	30.7	28.8	27.8	27.7	27.3

MOHAK Data (OAGB/MGB)

OAGB-MGB: %EBWL



	1yr	2yr	3yr	4yr	5yr	6yr	7yr	8yr	9yr	10yr
OAGB	74.3	80.8	81.1	78.6	78.1	77.1	75.2	73.3	71.8	70.3

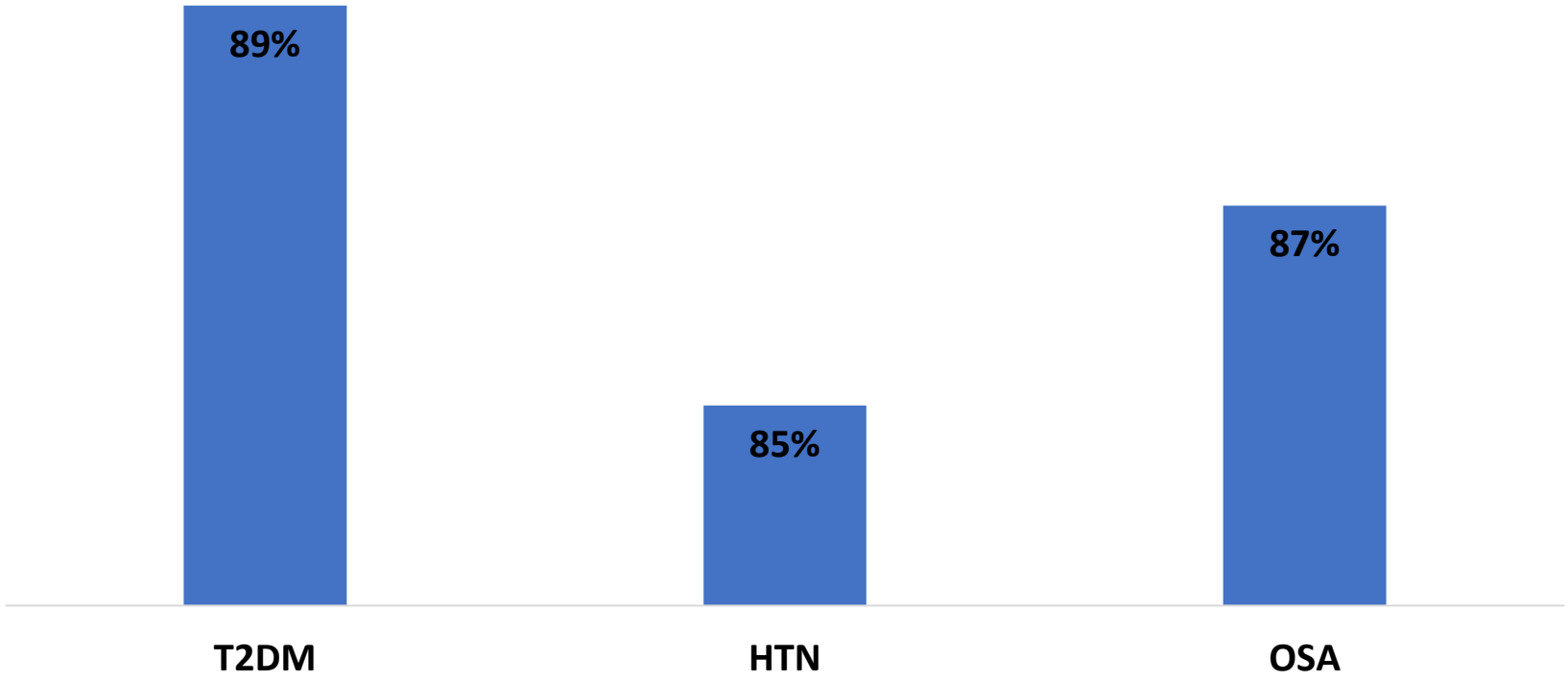
MOHAK Data (OAGB/MGB)

Nutritional Deficiencies

	Before		After	
		%ND		%ND
Hb <11gm/dl	12.9±1.3	6.6%	12.14±1.05	19.3%
Alb <3gm/dl	3.9±0.4	1.1%	3.65±0.48	10.5%
Protein <6	6.85±0.54	8.8%	5.98±0.49	42.10%
Vit D3 <20	29.4±6.6	0%	37.09±4.86	0%
Vit. B12 <200	228.9±46.3	42.2%	224.88±30.20	29.82%
Ca <8	9.0±0.6	0%	7.99±0.59	45.61%

MOHAK Data (OAGB/MGB)

Resolution of Co-Morbid Conditions



	FU yr	Av. BMI	Av. %EBWL	Av. DM (%)	Av. HTN (%)	Av. OSA (%)	Av. DL (%)
Bhandari 2022	10	46	70.3	89	85	87	78.9
Rutledge 2005	5	46	80	-	-	-	-
Lee 2012	5.6	41	72	80	80	-	80
Kular 2014	6	43.2	85	93	-	-	-
Jammu 2015	7	56.5	92	95	85	-	93
Carbajo 2016	6-12	46	70	94	94	90	96

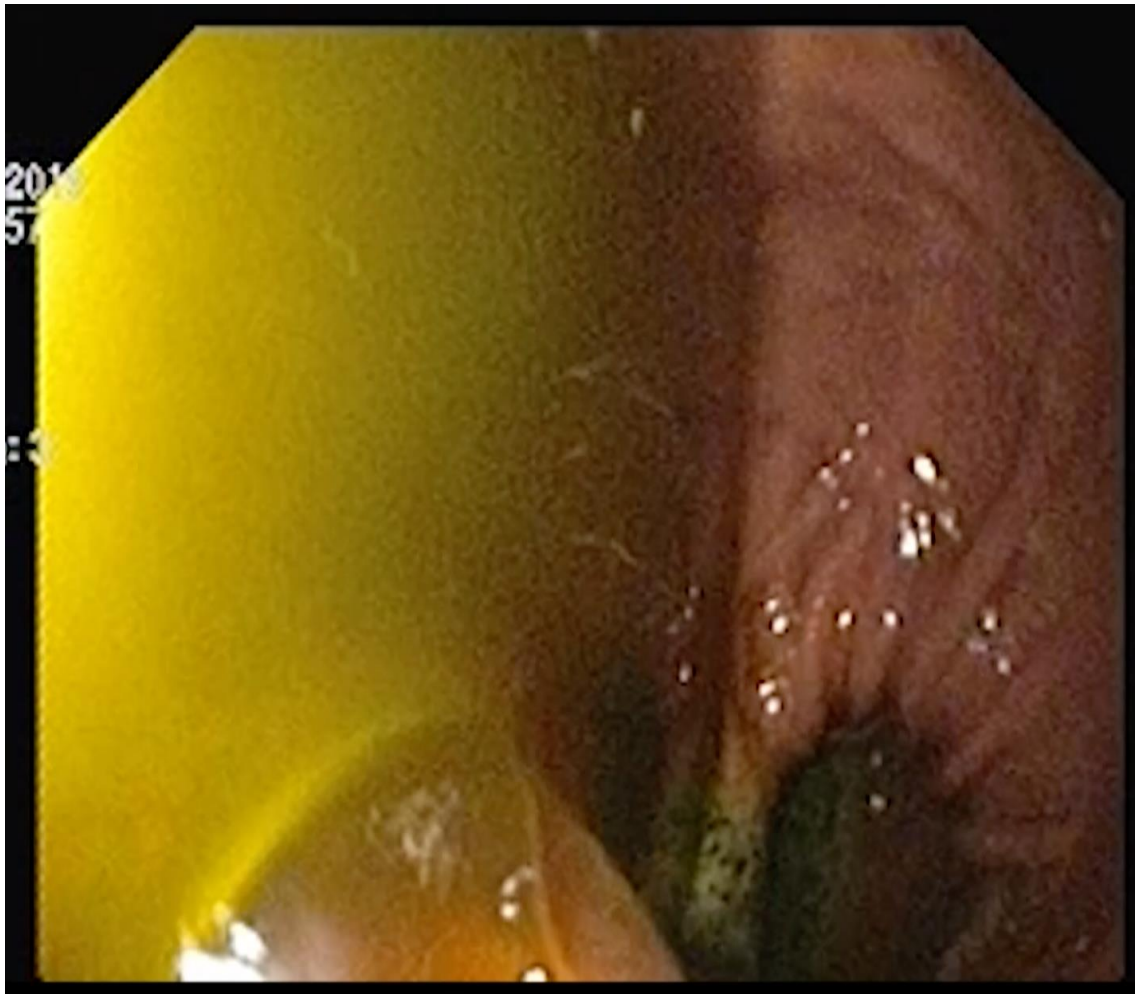
incidence of bile reflux into pouch or esophagus

Bile reflux after MGB/OAGB: Findings on 120 consecutive endoscopic examinations

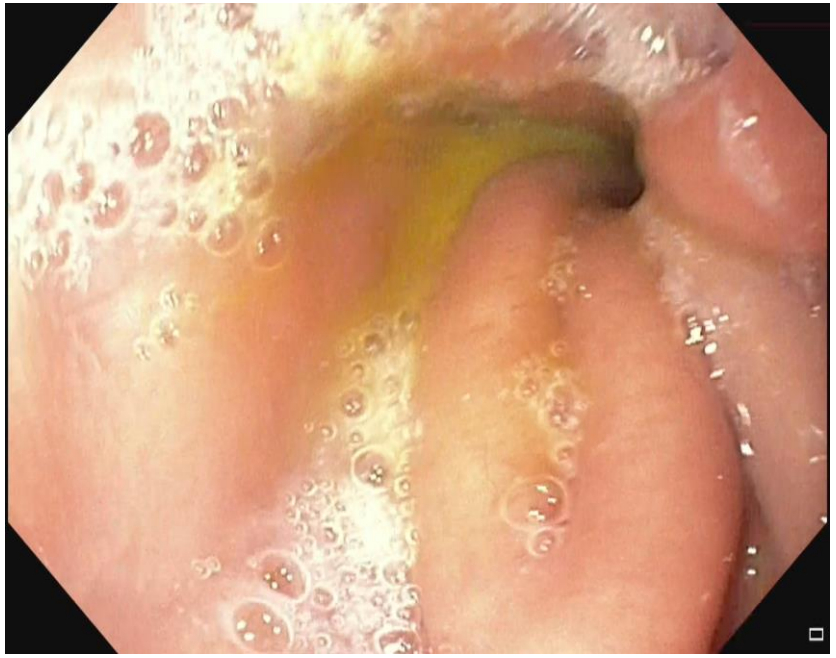
	Bile Reflux	Esophagitis	Gastritis
Bhandari 2019	46/120 (38.3%)	13.3%	30%
Braghetto 2017	77.9%	30.6%	87.8%
Chevallier et al. 2015	17.1%		
Kular 2014	2% (n=885)		
Salama 2017		2%	
Shenouda et al 2018			30%
Carbajo 2017			8%
Musella et al. 2014			0.9%
Saarinen 2017	55%		

FINDINGS

BILE IN STOMACH



FINDINGS

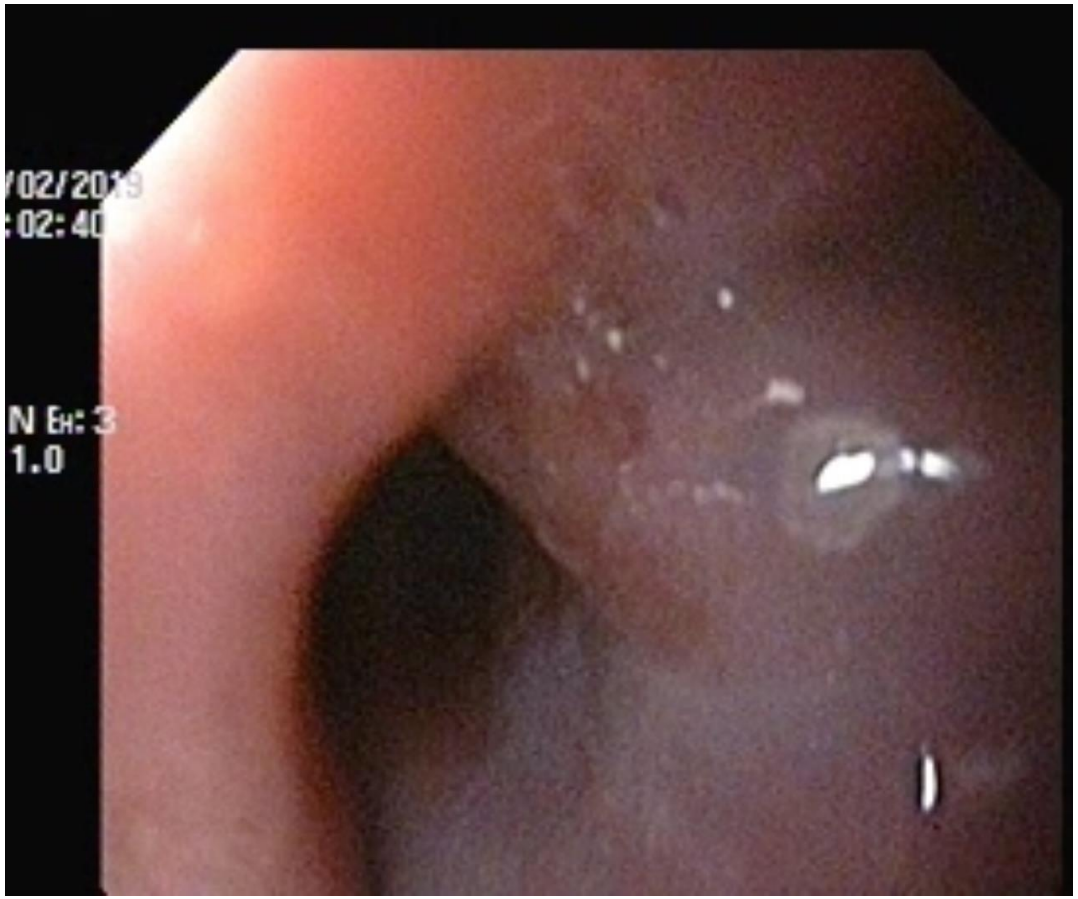


Bile in Oesophagus

Bile in Pouch

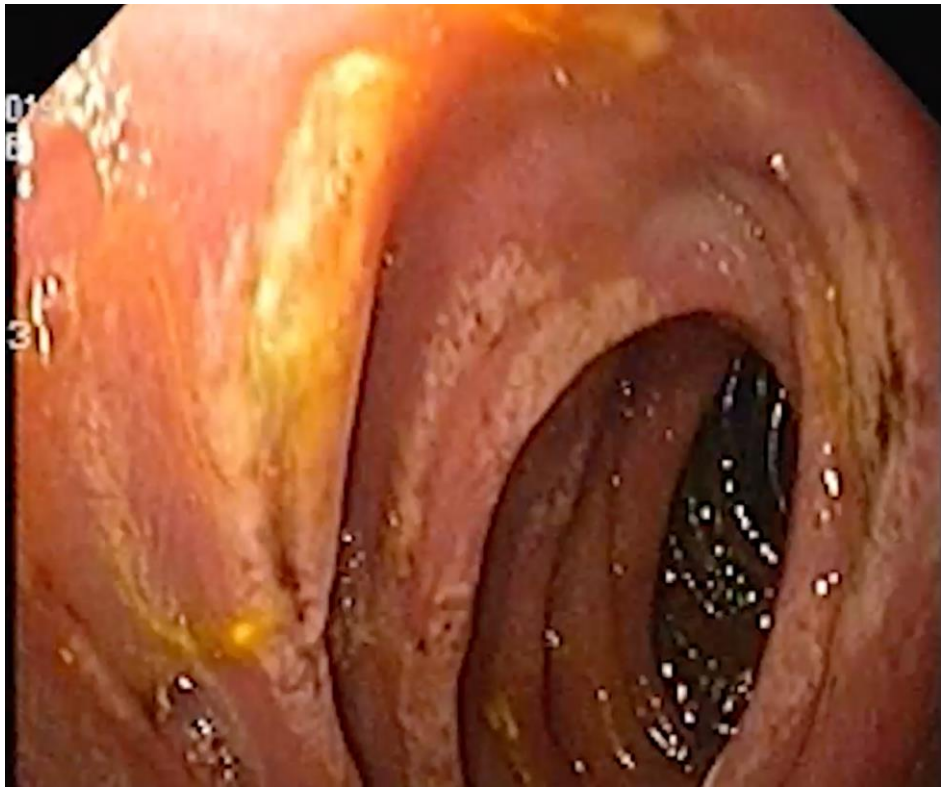
FINDINGS

ESOPHAGITIS

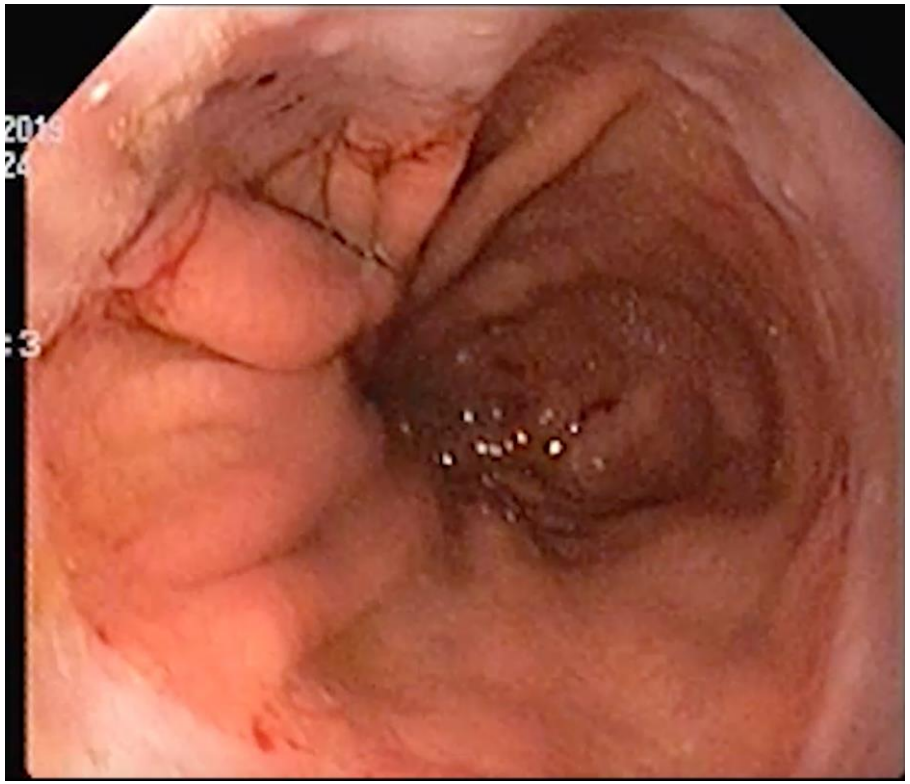


FINDINGS

MULTIPLE ULCERS

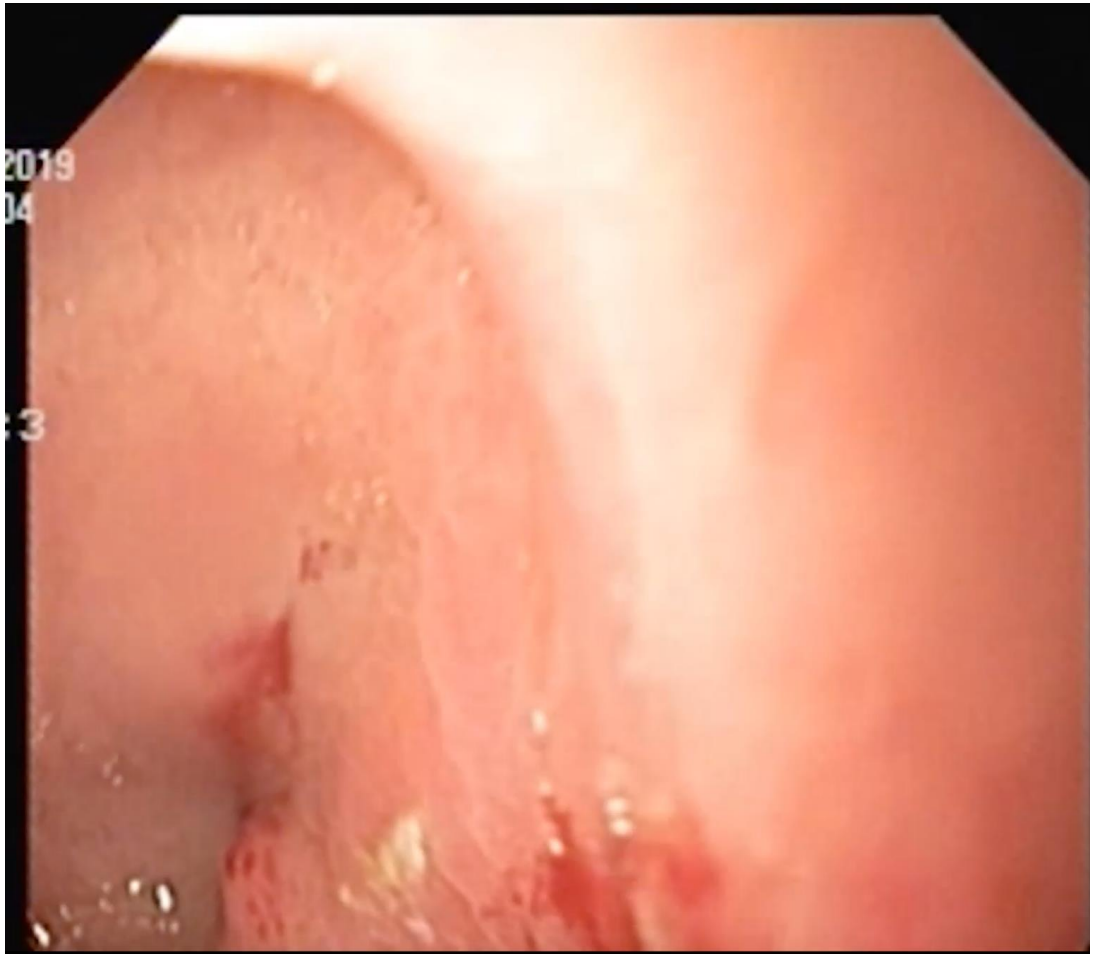


HIATUS HERNIA

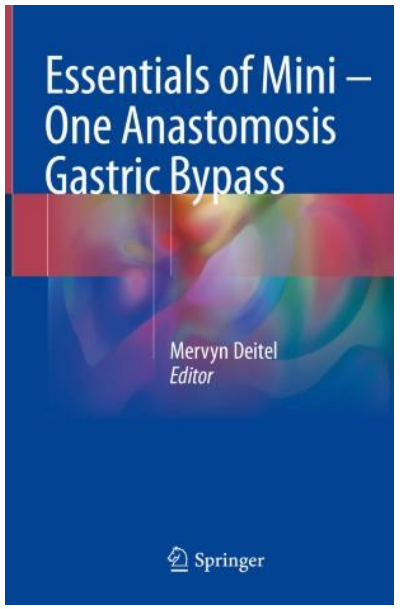


FINDINGS

GASTRITIS



Bhandari, M., & Mathur, W. (2018). Mini-Gastric Bypass Using Single or Reduced Number of Ports. Essentials of Mini – One Anastomosis Gastric Bypass, 163–170. doi:10.1007/978-3-319-76177-0_19



Mini-Gastric Bypass Using Single or Reduced Number of Ports

19

Mohit Bhandari and Winni Mathur

Single incision mini-gastric bypass (MGB) is preferred by most young unmarried morbidly obese individuals. The availability of wide-based single incision platforms has made a single incision bariatric procedure less complex and more feasible with safety. Gastrointestinal (GI) anastomosis with a single incision approach is the most technically challenging step, but can be safely performed with a standardized approach.

MGB envisages a long tubular pouch with a wide GI anastomosis based on the principle of non-obstructive malabsorption. The results of MGB at our center with the single incision approach are similar in terms of perioperative complications and percentage of excess weight loss. The single incision approach does not offer any additional benefit apart from cosmetic advantage.

Received: 22 December 2018 | Revised: 28 February 2019 | Accepted: 4 March 2019
DOI: 10.1111/cob.12308

Check for updates

ORIGINAL RESEARCH ARTICLE

clinicalobesity WILEY

OAGB vs BGBP: A retrospective comparative study of a cohort of patients who had bariatric surgery in 2012 at one centre by a single surgeon

Mohit Bhandari | Hemant K. Nautiyal | Winni Mathur | Susmit Kosta

	OAGB	BGBP
%TWL@5yrs.	**34.72%**	30.49%
%EWL@5yrs.	**78.0%**	71.5%
Resolution of T2DM	**79.16%**	71.42%

Two modifications of Roux-en-Y gastric bypass (RYGB), one anastomosis gastric bypass (OAGB) and Roux-en-Y banded gastric bypass (BGBP), are gaining popularity in use because the OAGB is reported to be a simpler operation, and the BGBP is reported to have sustained weight loss compared to standard RYGB. A retrospective review and analysis of data comparing outcomes up to 5 years after BGBP and OAGB from a prospectively maintained database of all bariatric metabolic operations in 2012 was performed. Eighty-two patients underwent a BGBP and 90 an OAGB. The average age and body mass index were 44.12 and 43.97 and 43.57 and 45.79 in the BGBP and OAGB groups, respectively. Postoperative nutrient deficiencies were similar in both groups but were more prominent in the OAGB group. The % excess body weight loss (%EBWL) was 78% and 71.5% at 5 years in the OAGB and BGBP groups, respectively. The % total weight loss (%TWL) was also higher in OAGB compared to the BGBP group, 34.72% and 30.49%, respectively. Resolution of type 2 diabetes (T2DM) was significantly higher in the OAGB group, 79.16%, than in the BGBP group, 71.42%. The resolution of dyslipidaemia and hypertension were similar in both groups, but sleep apnoea resolution was higher in OAGB group. Both operations produced excellent weight loss in the intermediate term. The %EBWL and resolution of T2DM were significantly higher after the OAGB operation at the expense of increased incidence of nutrient deficiencies and hypoproteinemia. Quality of life improvement and patient satisfaction were high after both operations. Long-term follow up and multicentre prospective studies are needed to confirm these intermediate outcomes.

ELSEVIER

Surgery for Obesity and Related Diseases ■ (2019) 1–7

SURGERY FOR OBESITY AND RELATED DISEASES

Original article

Comparison of one-anastomosis gastric bypass and Roux-en-Y gastric bypass for treatment of obesity: a 5-year study

Mohit Bhandari, M.S.*, Hemant Kumar Nautiyal, M.S., Susmit Kosta, Ph.D., Winni Mathur, B.P.T., M.B.A.(HA), Mathias Fobi, M.D.

Mohak Bariatrics and Robotics Center, SAIMS Campus, Indore-Ujjain Indore, Madhya Pradesh, India

Received 15 March 2019; accepted 16 May 2019

Background: Roux-en-Y gastric bypass (RYGB) is the gold standard in bariatric surgery. One-anastomosis gastric bypass (OAGB) has been reported to have equivalent or better weight loss, with added advantages of being technically easy, amenable to reintervention/reversal, and offering better food tolerance.

Objective: This study was undertaken to compare weight loss, metabolic syndrome outcome, complications, and long-term nutritional outcomes between the 2 procedures.

Settings: A high-volume, private-practice bariatric surgery center in India.

Method: This retrospective study is based on prospectively maintained data in a cohort of patients who had either RYGB or OAGB in 2012 at a single institution by a single surgeon. Patients were all eligible for 5-year follow-up.

Results: On hundred twenty-two patients had RYGB and 90 had OAGB. The mean age was 44 and 46.4 years, body mass index was 45.8 and 42, percentage of total weight loss was 36.4 and 25.9, and percentage of excess weight loss was 81.6 and 66.7 for OAGB and RYGB groups, respectively. Resolution of type 2 diabetes was 79%, hypertension 57%, dyslipidemia 56%, and sleep apnea 94.54% in OAGB patients compared with type 2 diabetes of 61%, hypertension of 43%, dyslipidemia of 53%, and sleep apnea of 90.74% in RYGB patients. OAGB patients had more nutritional deficiencies than RYGB patients: anemia 44% versus 17%, hypoalbuminemia 32% versus 15%, and hypocalcemia 19% versus 8%, and other complications 7.8% versus 1.6%, respectively. There were no deaths in this study.

Conclusion: OAGB is associated with more weight loss and better resolution of co-morbid conditions. However, it is also associated with more nutritional deficiencies. There is a need for long-term follow-up and multicenter reports to confirm these findings. (Surg Obes Relat Dis 2019;■

	OAGB	RYGB
%TWL@5yrs.	**36.4%**	25.9%
%EWL@5yrs.	**81.6%**	66.7%
Resolution of T2DM	**79%**	61%

Mini Gastric Bypass: Why It Is Better than Gastric Bypass in India

49

Mohit Bhandari, Manoj Kumar Reddy, Winni Mathur, and Susmit Kosta

Mini gastric bypass is also known as single anastomosis gastric bypass. The procedure incorporates a long gastric tube of size 15–18 cm with a loop gastroenterostomy of size 4.5 cm. Essentially the procedure involves nonrestricted malabsorption. The limb lengths of biliopancreatic limb vary in different studies and centres. Most studies published have mentioned different limb lengths ranging from 150 cm to 300 cm [1].

Advantages of Mini Gastric Bypass

Mini gastric bypass is regarded as a safe, simple, reversible procedure. There is only one anastomosis and no mesenteric defect. It has shorter operative time. The procedure is safe and simple as the anastomosis is low lying and there is less tension on the anastomosis. In a gastric bypass, it is known that the anastomoses are close to the

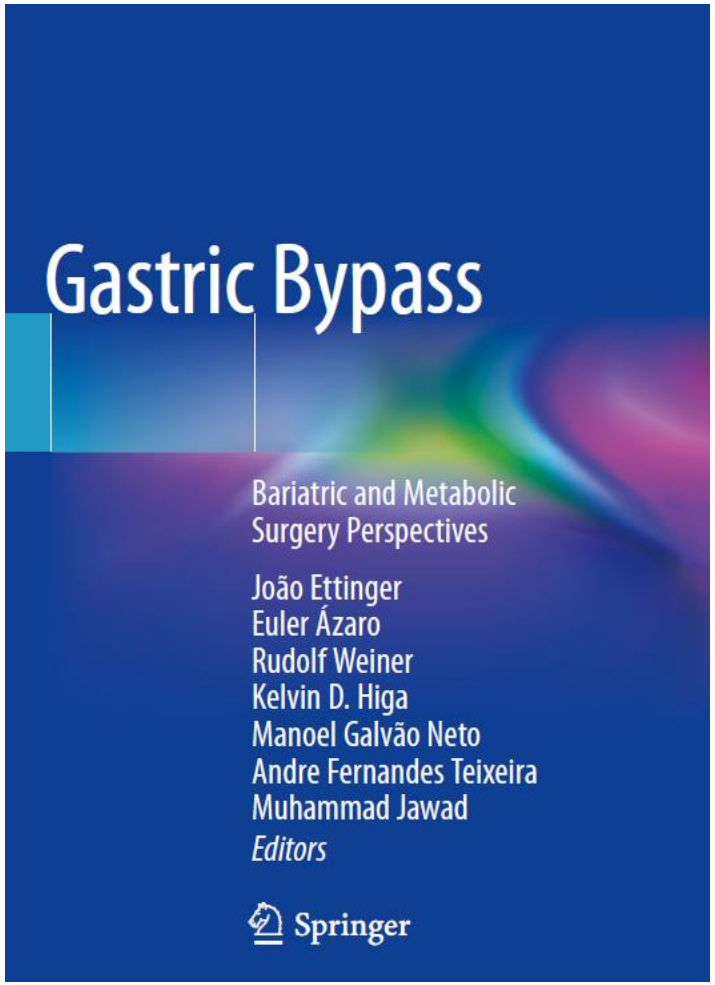
Cons of Mini Gastric Bypass

There are concerns about a higher incidence of marginal ulcers, bile reflux, malignancies in long-term and excessive weight loss with protein-energy malnutrition of mini gastric bypass [3].

Reasons for Preference of Mini Gastric Bypass in India

The major reasons for preference of mini gastric bypass in India are as follows:

1. *Dietary habits*: Most Indians are vegetarians, and the diet consumed by most is full with carbohydrates and fats. This puts Indian subset of patients to do bulk eating and consuming huge quantity of fat. The protein in the diet is in very less proportion as compared to car-



International Surgery Journal
Bhandari M et al. Int Surg J. 2018 Dec;5(12):3837-3841
http://www.ijsurgery.com
pISSN 2349-3305 | eISSN 2349-2902

DOI: http://dx.doi.org/10.18203/2349-2902.isj20184714

Original Research Article

OAGB/MGB for childhood and adolescent patients: a report of 20 cases done at a single centre in India

Mahak Bhandari[1], Mohit Bhandari[2]*, Winni Mathur[2], Susmit Kosta[2]

ABSTRACT

Background: Morbid obesity has risen in an alarming rate in children and adolescent patients. Bariatric surgery is playing an increasing role in pediatric surgery. However, current evidence is limited regarding its safety and outcome. The aim of this study is to evaluate the efficacy of Mini/One Anastomosis Gastric Bypass (MGB/OAGB) in treating obesity and its co-morbidities among childhood and adolescent patients.

Methods: A retrospective study was conducted of patients aged <18 who underwent OAGB/MGB in this series at Mohak Bariatric and Robotic Surgery Center (MBRSC) is a tertiary-care center. The major outcome measures were percent excess body weight loss (%EBWL) over a 2-year follow-up period, resolution of co-morbidities, and occurrence of complications.

Results: A total of 20 childhood and adolescent patients underwent the procedure, of which, 11 (55.0%) of being males. The patients had a median age of 15 years (range 6–18). The average age was 15.5±3.17 year (range 6-18 years). The initial average weight and BMI was 112.13±26.52 Kgs and 40.86±8.17 kg/m^2 respectively. Postoperative average weight loss was 28 kgs, 33 kgs and 37.2 kgs in 6 months, 1st year and 2nd year respectively. The %EBWL at 1st and 2nd years was 75% and 80% respectively. Overall post-operative complication rate was 5.0% (two cases) of which one had gastroesophageal reflux and the other had protein caloric malnutrition. There was no mortality in this series at any time.

Conclusions: The OAGB/MGB operation is a safe and effective option for childhood and adolescent patients with severe obesity. There is need for both long-term follow up, prospective, multicentre and larger series studies to confirm the findings in this study.

Print ISSN: 2349-3305
Online ISSN: 2349-2902
www.ijsurgery.com

ISJ
International
Surgery Journal

Volume 4 • Issue 1 • January 2017

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Post-OP	1Yr	2Yrs
%EWL	75%	80%

Original Article
CLINICAL TRIALS AND INVESTIGATIONS

Obesit ircad India | SRI AUROBINDO UNIVERSITY VISION WITH ACTION | MOHAK BARIATRICS ROBOTICS WEIGHT LOSS & DIABETES SURGERY CENTRE

Surgery in Patients with Super Obesity: Medium-Term Follow-Up Outcomes at a High-Volume Center

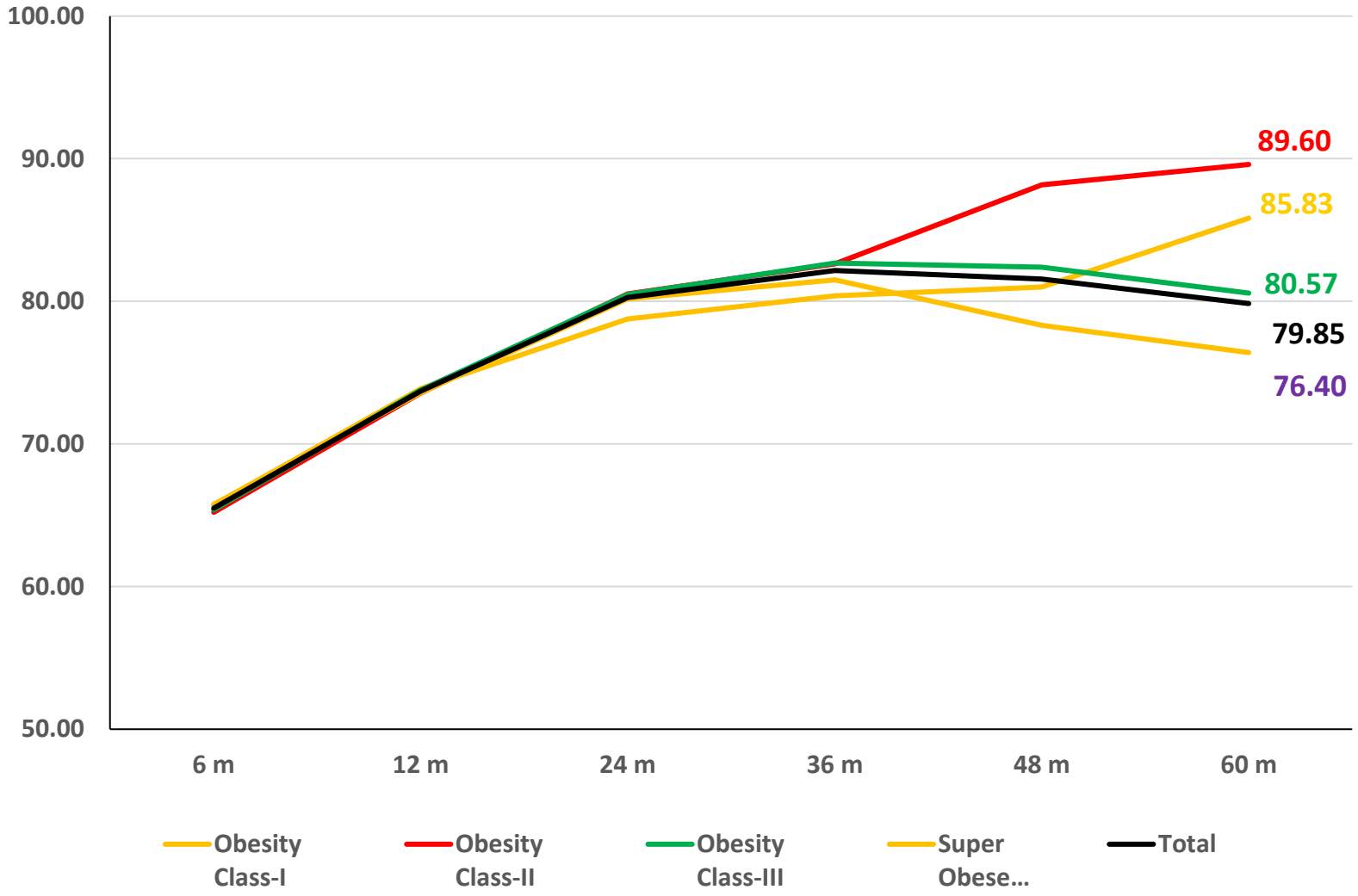
Mohit Bhandari, Guillermo Ponce de Leon-Ballesteros, Susmit Kosta, Mahak Bhandari, Terrel Humes, Winni Mathur, and Mathias Fobi

Objective: There is a need to determine which bariatric operations are the most effective for patients with super obesity and super-super obesity.
Methods: A retrospective cohort study was performed on patients with super obesity and super-super obesity at Mohak Bariatrics and Robotics Surgery Center in Indore, India.
Results: Five hundred fourteen patients with super obesity and super-super obesity had surgery at our center from January 2010 through December 2013. The baseline characteristics were different in different operations. The initial average age, weight, and BMI were 44.4 (SD 11.9) years, 145.4 (SD 24.2) kg, and 55.48 (SD 5.32) kg/m^2, respectively. Sleeve gastrectomy (SG) (227 [44.2%]) was the most common procedure, followed by one-anastomosis gastric bypass (OAGB) (124 [24.1%]), Roux-en-Y gastric bypass (RYGB) (102 [19.8%]), banded sleeve gastrectomy (BSG) (33 [6.4%]), and banded Roux-en-Y gastric bypass (BRYGB) (28 [5.4%]). After 3 years, the percentages of excess body weight loss (%EBWL) for SG, OAGB, RYGB, BSG, and BRYGB were 62.38%, 78.59%, 69.55%, 85.11%, and 75.77% ($P<0.0001$), respectively. Failure to achieve BMI<35 kg/m^2 was more frequent in the group who underwent SG (67.9%), followed by RYGB (29.16%), BRYGB (22.2%), OAGB (9.87%), and none in the BSG group.
Conclusions: BSG, OAGB, and BRYGB have very good to excellent midterm outcomes for patients with super obesity and super-super obesity, whereas RYGB and SG have average outcomes at 3 years. There is a need for multicenter, long-term, and prospective studies to be performed to confirm these findings.

When we analysed our long-term follow-up data and reviewed reports in literature we observed three things

- Some patients with BMI <40 are having EWL greater than 100%.
- High incidence of HB, protein, albumin and calcium deficiency with BP limb >200 cm.
- Super obese patients with BMI >50 are having weight regain after 5 years

%EBWL


100.00
90.00
80.00
70.00
60.00
50.00
6 m
12 m
24 m
36 m
48 m
60 m
89.60
85.83
80.57
79.85
76.40
Obesity Class-I
Obesity Class-II
Obesity Class-III
Super Obese...
Total

- While on comparing 180- and 250-cm group, a statistically significant difference was present in vitamin D_3, vitamin B_{12}, and total protein with insignificant difference in diabetes and hypertension resolution.

  Ahuja, A., Tantia, O., Goyal, G. et al. OBES SURG (2018) 28: 3439. https://doi.org/10.1007/s11695-018-3405-7

- Hypoalbuminemia with albumin <3 is minimal in LSG, 2% in RYGB 13.1% in MGB

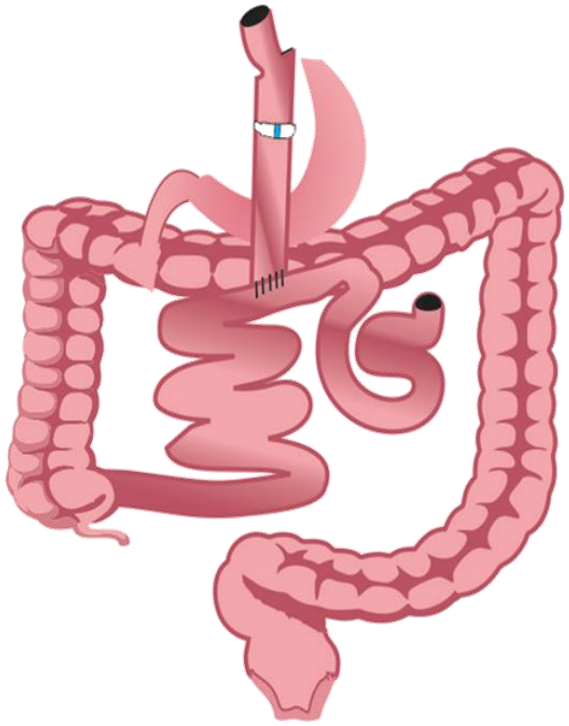
  Jammu, G.S. & Sharma, R. OBES SURG (2016) 26: 926. https://doi.org/10.1007/s11695-015-1869-2

- The most common cause of revision was malnutrition in 9 (39.1%), followed by Weight regain or inadequate weight loss in 8 (34.7%), and intractable bile reflux and dissatisfaction each in 3 (13.0%)

  W.J. Lee, Y.C. Lee, K.H. Ser, S.C. Chen, Y.H. SuRevisional surgery for laparoscopic mini-gastric bypassSurg. Obes. Relat. Dis., 7 (4) (2011), pp. 486-491

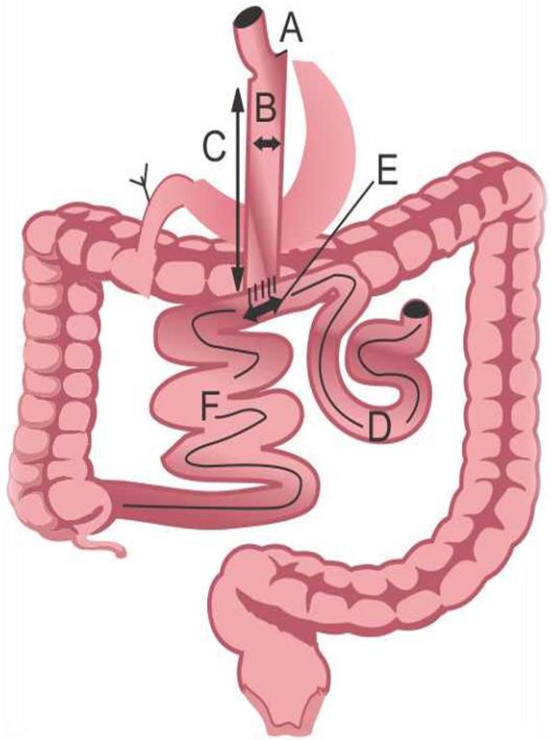
Changes in protocol

- Standardised BP limb to 180cm in all OAGB operations to minimise PCM incidence
- Place a **Ring/band** loosely around pouch of OAGB **3-4cm from EG junction** to enhance weight loss maintenance in **super obese** patients with **BMI >50.**
- Prospectively enter data on all the operations and publish results yearly.



BANDED OAGB/MGB

VS



OAGB/MGB

A=1cm------- Distance from EG Junction

B=2.5cm-------Width of the pouch

C=3-4cm-------Ring placement from GE Junction

D=15-18cm----Length of the pouch

E=180cm------Bilio-pancreatic Limb

F=3-4cm--- ---Gastro-enterostomy

G=?? -- -------Common Channel not measured

V=75-90cc--- Volume of the pouch

Comparative Report:
Banded OAGB vs OAGB

- **OBJECTIVE**
  - To describe surgical technique and report the preliminary outcomes with BOAGB and to compare result with OAGB.

- **METHODS**
  - BOAGB is performed like regular OAGB with a ring placed at 3-5 cm from GE-junction around the pouch in super obese catrgory.

  - We retrospectively analyzed prospectively kept data on MGB/OAGB and BMGB/BOAGB at MBRSC and compare the results.

Comparative Report:
Banded OAGB vs OAGB

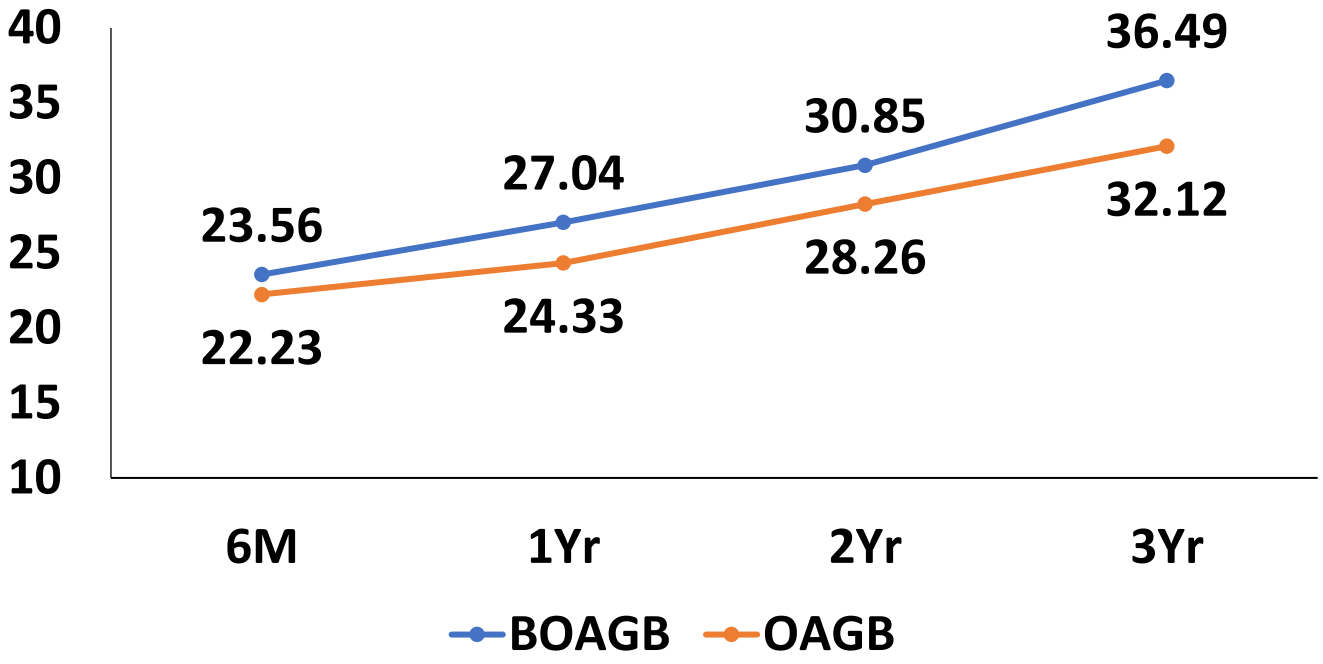
	OAGB (BP 180) BMI>50	BOAGB (BP 180) BMI>50	p value	95% CI
Number	1021	1056		
Age	45.02±12.13	43.29±11.30	0.191	-4.3289 to 0.8689
Height	1.61±0.08	1.60±0.11	0.373	-0.0321 to 0.0121
Weight	144.72±25.50	144.75±21.84	0.991	-5.1917 to 5.2517
BMI	55.50±8.01	56.00±6.86	0.549	-1.1402 to 2.1402

Comparative Report:
Banded OAGB vs OAGB

Incidence of Co-morbidities

	OAGB (BP 180) BMI>50	BOAGB (BP 180) BMI>50	P value
T2D	30.0%	32.5%	0.715
HTN	**16.8%**	**32.9%**	**0.001***
CVD	6.1%	7.6%	0.738
OSA	67.9%	61.8%	0.257
Thyroid	21.3%	18.8%	0.576
Joint Pain	54.2%	43.4%	0.057
Back Pain	19.8%	14.6%	0.220

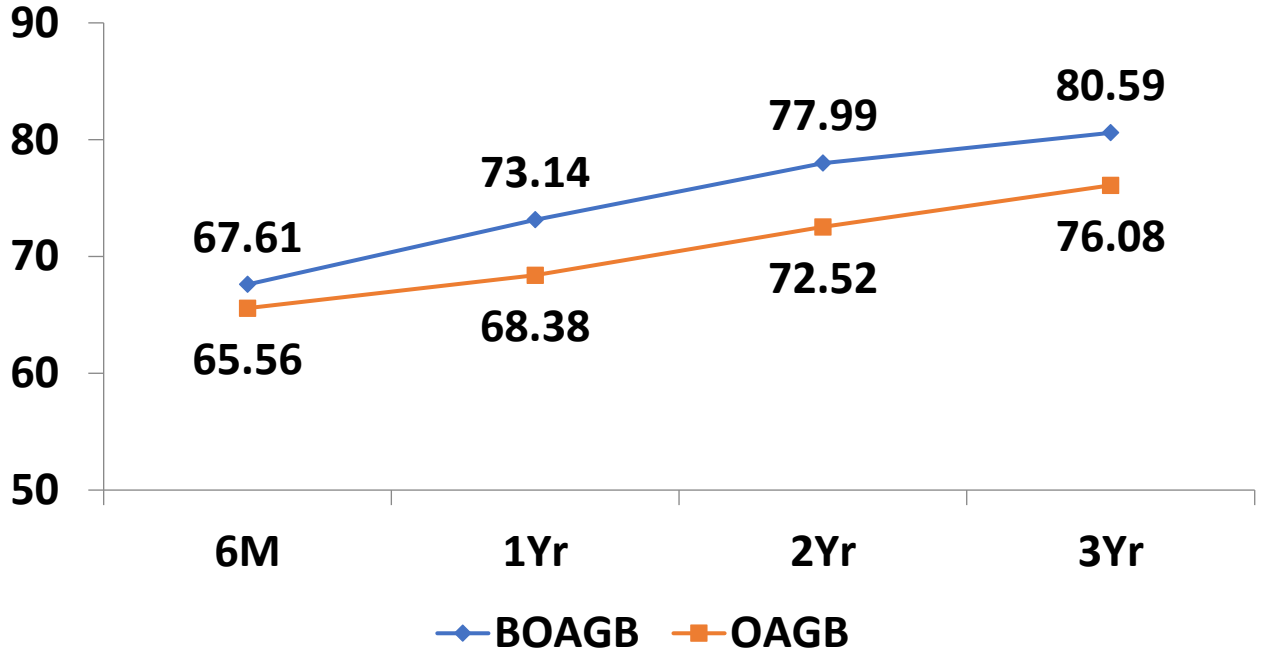
Comparative Report:
Banded OAGB vs OAGB



%TWL BOAGB & OAGB

	6M	1Y	2Y	3Y
% TWL				
BOAGB (BP 180) BMI>50	23.56±5.81	27.04±6.01	30.85±8.3	36.49±4.7
OAGB (BP 180) BMI>50	22.23±5.66	24.33±4.30	28.26±1.6	32.12±1.4
P value	0.043	0.0001*	0.0001*	0.0001*

Comparative Report:
Banded OAGB vs OAGB



%EBWL BOAGB & OAGB

	6M	1Y	2Y	3Y
% EBWL				
BOAGB (BP 180) BMI>50	67.61±5.11	73.14±7.21	77.99±7.81	80.59±8.11
OAGB (BP 180) BMI>50	65.56±5.25	68.38±6.11	72.52±7.11	76.08±7.21
P value	0.0006	0.0001*	0.0001*	0.0001*

Comparative Report:
Banded OAGB vs OAGB

Food Intolerance: OAGB vs B-OAGB

	06 Months		1 Years		2 Years		3 Years	
	Tolerance	Intolerance	Tolerance	Intolerance	Tolerance	Intolerance	Tolerance	Intolerance
B-OAGB	49.7%	50.3%	67.5%	32.5%	76.9%	23.1%	81.8%	18.2%
OAGB	74.0%	26.0%	87.0%	13.0%	88.9%	11.1%	93.8%	6.2%
P value	**0.0001**		**0.0001**		**0.037**		**0.067**	

Comparative Report:
Banded OAGB vs OAGB

COMPLICATIONS

Variables	BOAGB	OAGB
Marginal Ulcer	9/191(4.7%)	8/131(6.6%)
Efferent limb obstruction	1	0
Band erosion	1	0
Band removal (d/t severe food intolerance)	2	0

Comparative Report:
Banded OAGB vs OAGB

- **BOAGB** is a **safe and doable** operation with **complications rate comparable to OAGB/MGB.**
- The **BP limp of 180cm** appears to result in **less incidence of protein malnutrition.**
- The placement of the **ring** appears to **increase the %EBWL.**
- However, certain patient **complaint of food intolerance** with banding the OAGB/MGB that is adequately **managed by nutritional counseling** and very few patients requiring **band removal**

Laparoscopic One Anastomosis Gastric Bypass (OAGB) Mini Gastric Bypass (MGB) Early (≤30 Days) Complications – Diagnosis and Management

Mohit Bhandari, Susmit Kosta, Manoj Reddy & Winni Mathur

Living reference work entry | First Online: 23 August 2022

Abstract

One anastomosis gastric bypass (OAGB)/ mini gastric bypass (MGB) is now a recognized mainstream bariatric procedure being adopted by an increasing number of surgeons. Though OAGB-MGB has a lower complication rate, given the more frequent occurrence of medical comorbidities, these patients require special attention in the early postoperative follow-up. Early diagnosis and appropriate treatment of these complications are directly associated with a greater probability of control. The incidence of early complications was mostly clinical, based on the presence of signs and symptoms such as pain, vomiting, bleeding, fever, tachycardia, and tachypnea. Early recognition of complications would help in achieving favorable outcomes. The incidence of early complications was low. We evaluate the experience and early postoperative follow-up in a large cohort of patients in whom laparoscopic OAGB-MGB was performed at a single institution. In this chapter, we discuss how to prevent and manage its

Bhandari, M., Kosta, S., Reddy, M., Mathur, W. (2022). Laparoscopic One Anastomosis Gastric Bypass (OAGB) Mini Gastric Bypass (MGB) Early (≤30 Days) Complications – Diagnosis and Management. In: Agrawal, S. (eds) Obesity, Bariatric and Metabolic Surgery. Springer, Cham. https://doi.org/10.1007/978-3-030-54064-7_90-1

Early complications and their management

Table 1 Total numbers of early complications and their management

Clavien-Dindo Classification	Complications	Number
I	Fever	252
	Vomiting	140
	Antibiotics for port site infections	66
II	Bleeding	73
III -IIIa -IIIb	Endoscopy vomiting Laparoscopy for vomiting Lap for leak Post site hernia Remnant block Bleeding	5 3 5 2 1 9
IV-IVa	Deep vein thrombosis (DVT)	2

High Efficacy: OAGB delivers sustained weight loss and superior resolution of metabolic conditions, confirming its role as a leading bariatric procedure.

Optimized Techniques: Refinements such as the use of banded OAGB and optimized limb length (standardized to 180 cm) have contributed to minimizing complications like protein-calorie malnutrition and enhancing weight maintenance.

Data-Driven Precision: Rigorous analysis enables better patient selection, ensuring safety and maximizing effectiveness.

Post-Op Vigilance: Structured follow-up is critical for managing nutritional deficiencies and ensuring lasting success.

Future Outlook: As OAGB continues to grow in popularity globally, ongoing research and data collection will be essential to refining the procedure and expanding its use to diverse patient populations.

MOHAK TEAM

THANK YOU

We offer various treatment modalities for obesity. The operation is determined by the profile of the patient and guided by findings from analysis of the data from our prospectively maintained database