

OAGB: Standardized Approach and Technical Considerations

Chetan Parmar

MS, DNB, PGDHHM, PGDMLS, NDDY, FRCS, FIFSO

Professor of Surgery – University College London



Whittington Health
NHS Trust

Consultant Bariatric Surgeon
Whittington Hospital, London



University College London



Disclosures

No relevance to this talk.

Director – Surgery and Cancer
Co-Director Research and Innovation
Whittington Hospital, London

Honorary Professor – Apollo Hospitals, India

Secretary – BOMSS

President – MGB/OAGB International Club

IFSO EC – Treasurer

Editor – Obesity Surgery, SOARD, IBC Newsletter, IJS,
Journal of Bariatric Surgery

Consultant with:

- **Johnson & Johnson**
- **Medtronic**
- Meril Ltd
- Boston Scientific

Figure 3. Total procedures by operative type, n=598,137 (2023)

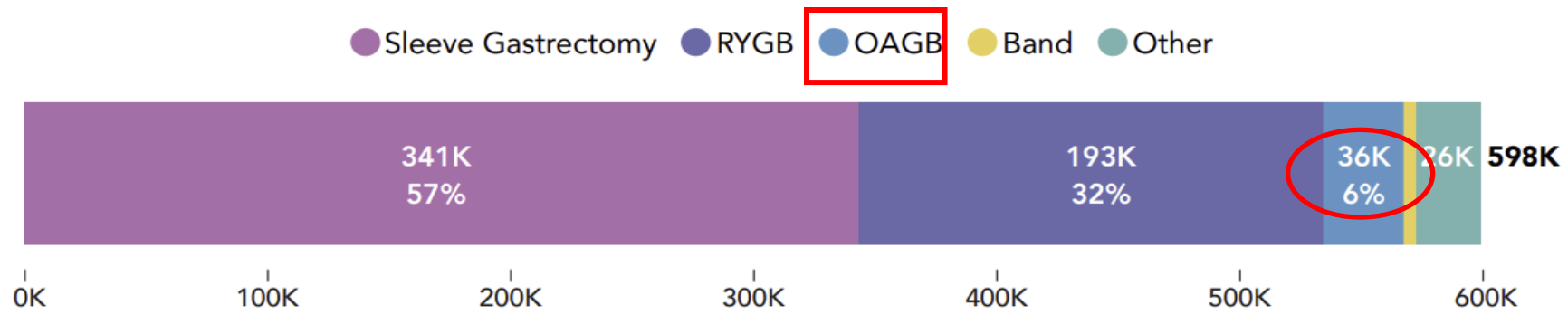
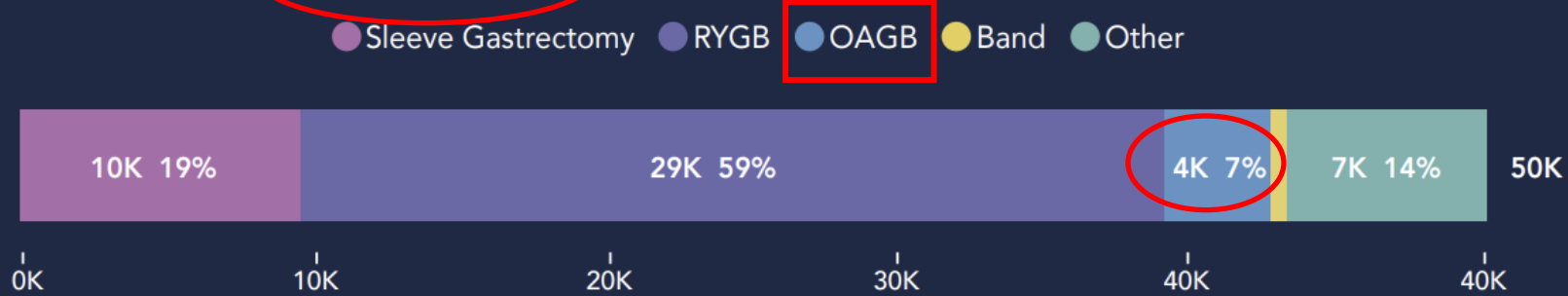


Figure 6. Total revisional procedures by operative type, n=50,100 (2023)



Why standardization? Concerns?

- Reflux 2.08% (0.6 – 10%)
- Marginal Ulcer 2.7% (0 – 10%)
- Malnutrition 0.71% (0 – 3.8%)
- Cancer Case reports



Oesophageal and Gastric Cancer After Bariatric Surgery: an Up-to-Date Systematic Scoping Review of Literature of 324 Cases

Chetan Parmar¹  · Sjaak Pouwels^{2,3}

Table 2 Types of bariatric surgery and the location of cancer ($n=323$)

	RYGB ($N=133$)	SG ($N=58$)	GB ($N=97$)	VBG ($N=14$)	MGB/OAGB ($N=7$)	BPD ($N=3$)	Other* ($N=15$)
Oesophagus	37	17	46	5		1	8
Stomach	6	6	8	9		1	
Gastric pouch	30	16	7		2		2
Gastric remnant	24		3		3	1	2
GE junction	23	17	18		2		3
Excluded stomach	3						
Unknown	10	2	15				

* Other procedures were Mason Mclean vertical banded gastroplasty ($n=6$), biliopancreatic diversion ($n=2$), single anastomosis duodeno-ileal bypass with SG ($n=1$), duodenal switch ($n=1$), banded RYGB (Fobi ring, $n=1$), gastric balloon ($n=1$), SG with loop duodenojejunal bypass ($n=1$), silicon ring vertical gastroplasty plus gastric banding ($n=1$) and Salmon's technique ($n=1$)

Abbreviations: RYGB, Roux-en-Y gastric bypass; SG, sleeve gastrectomy; GB, gastric band; VBG, vertical banded gastroplasty; MGB/OAGB, mini gastric bypass/one anastomosis gastric bypass; BPD, biliopancreatic diversion; GE, gastro-oesophageal

Today's talk

Some tips for you all/technical considerations

- **Pre-operative**

- Patient selection

- **Intra-operative**

- Gastric pouch

- Gastrojejunostomy

- Limb length

- Petersens defect

- **Post-operative**

- PPI prophylaxis

- Supplements

IFSO OAGB-MGB Consensus Meeting



Hamburg, July 2019

Obesity Surgery
<https://doi.org/10.1007/s11695-022-06124-7>



ORIGINAL CONTRIBUTIONS

Patient Selection in One Anastomosis/Mini Gastric Bypass—an Expert Modified Delphi Consensus

Mohammad Kermansaravi¹ · Chetan Parmar² · Sonja Chiappetta³ · Shahab Shahabi¹ · Alaa Abbass⁴ · Syed Imran Abbas⁵ · Mohamed Abouzeid⁶ · Luciano Antozzi⁷ · Syed Tanseer Asghar⁷ · Ahmad Bashir⁸ · Mohit Bhandari⁹ · Helmuth Billy¹⁰ · Daniel Caina¹¹ · Francisco J. Campos¹² · Miquel-A. Carbajo¹³ .

IFSO (International Federation for Surgery of Obesity and Metabolic Disorders) Consensus Conference Statement on One-Anastomosis Gastric Bypass (OAGB-MGB): Results of a Modified Delphi Study IFSO Consensus Conference Contributors



Obesity Surgery
The Journal of Metabolic Surgery and Allied Care

ISSN 0960-8923

OBES SURG
DOI 10.1007/s11695-020-04519-y

> Surg Laparosc Endosc Percutan Tech. 2023 Apr 1;33(2):162-170.
doi: 10.1097/SLE.0000000000001148.

Standardization of the One-anastomosis Gastric Bypass Procedure for Morbid Obesity: Technical Aspects and Early Outcomes

Nasser Sakran^{1 2}, Bassel Haj^{1 2}, Sjaak Pouwels^{3 4}, Jane N Buchwald⁵, Salma Abo Foul¹, Chetan Parmar⁶, Ali Awad¹, Jabra Arraf¹, Abdallah Omari¹, Mohamad Hamoud¹

Preoperative

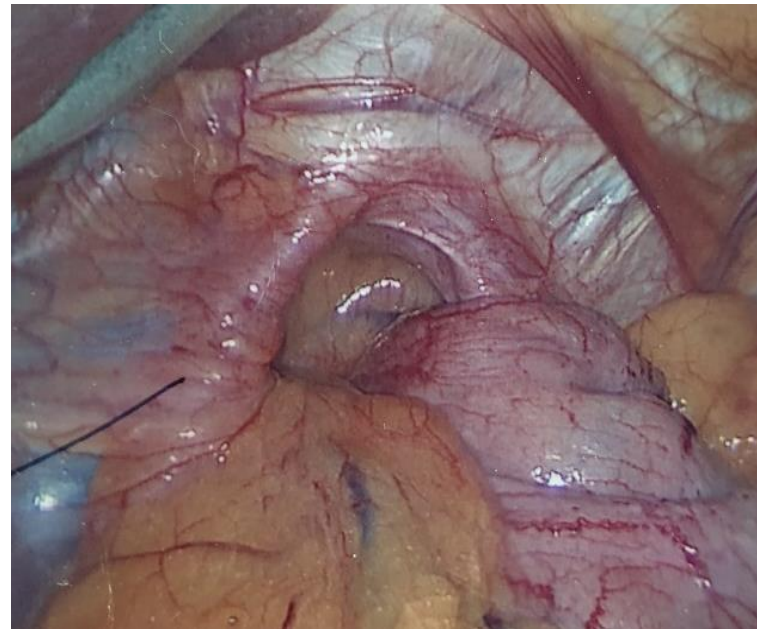
Prevention is better than cure

1. Choice of primary procedure
2. Patient factors
3. Surgeon Factors

1. Choice of primary procedure

- “different surgeries have different impacts on the symptomatology of GERD and that careful assessment may be needed before performing bariatric surgery in patients with GERD.”
 - *El-Hadi, Birch, Gill, Karmali, Can J Surg 57(2), 2014*

- Severe oesophagitis on OGD
- Large hiatus hernia
- Barretts



2. Patient Factors

- Eradicate h.pylori (All my patients get preoperative endoscopy)
- Bad eating habits – Eating disorder assessment
- NSAIDS, steroids, Alcohol
- Smoking

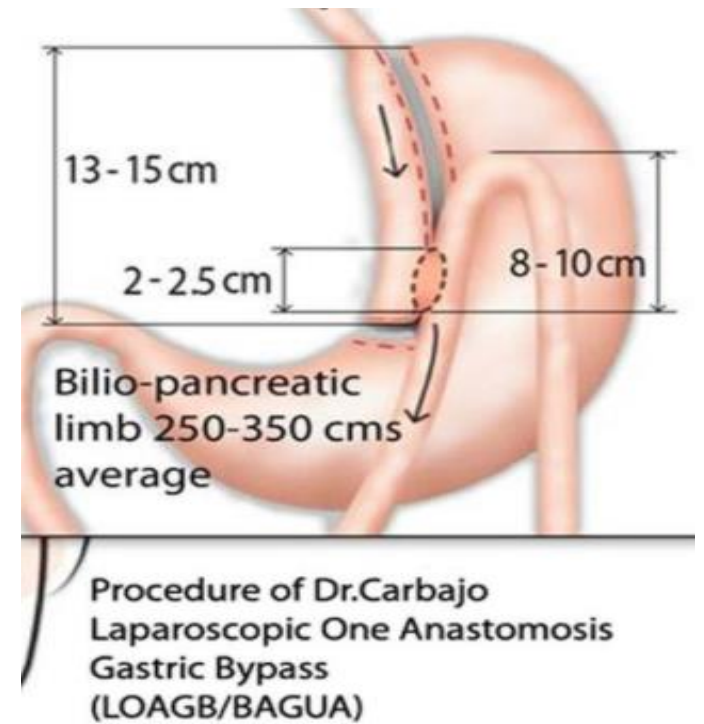
> [Obes Surg.](#) 2019 Sep;29(9):2982-2984. doi: 10.1007/s11695-019-04017-w.

E-cigarette, Obesity and Bariatric Surgery: Guidelines for the Bariatric Societies

Chetan D Parmar ¹, Lyndcie Lee ², Pratik Sufi ²

3. Surgeon Factor

- Carbajo – OAGB
 - Modified MGB to avoid potential bile reflux
 - reports 2% incidence of clinical oesophageal reflux (26/1200 pts)
 - Carbajo, *Obes Surg* (2017);27(5):1153-67
- Experience
- Have a mentor



Intra-operative

Technical Factors (Key steps)

- Long gastric pouch
- First stapler
- Devascularised GJ anastomosis area
- Prevent twist of the pouch
- Hiatus hernia
- Limb length

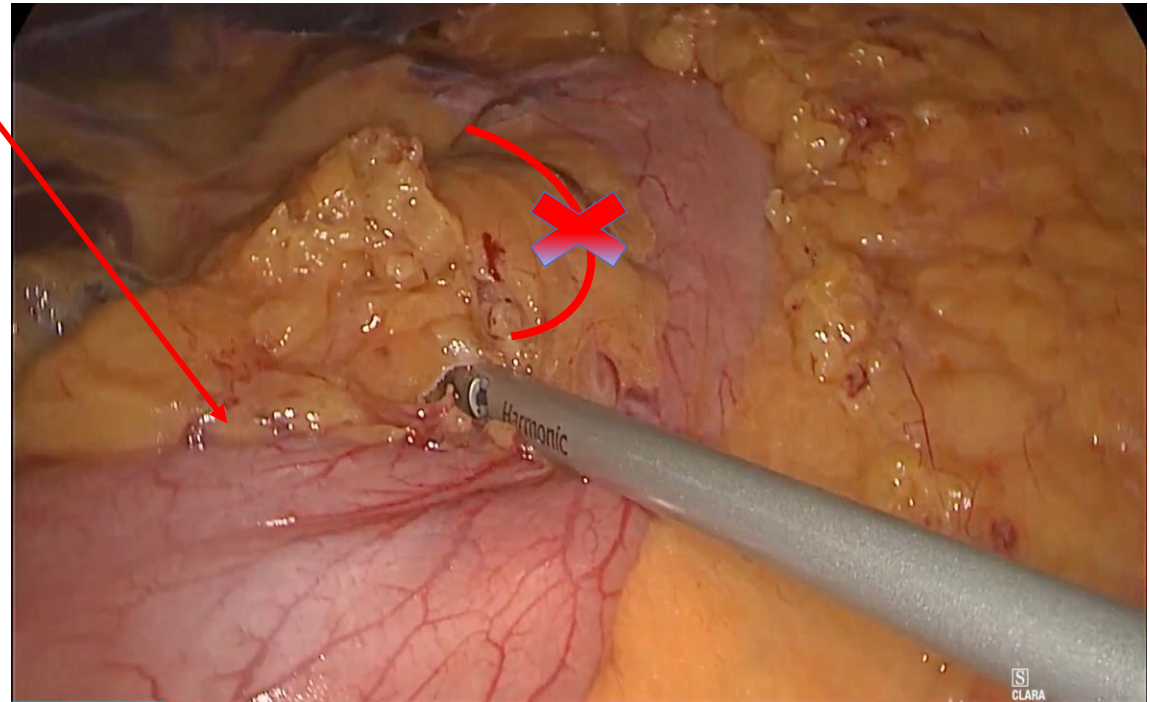
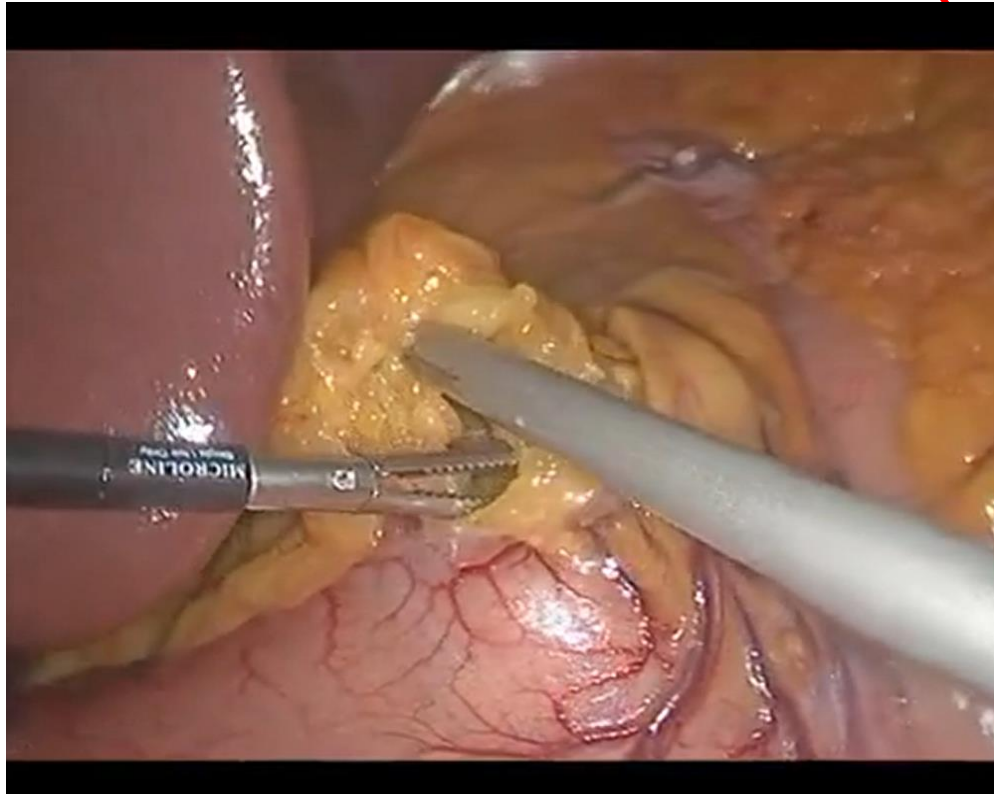
Intra-operative

Make Small window

Distal to the crow
feet towards the
antrum

Gastric pouch

- Prevent de-vascularization/marginal ulcer
- Help prevent rotation of pouch

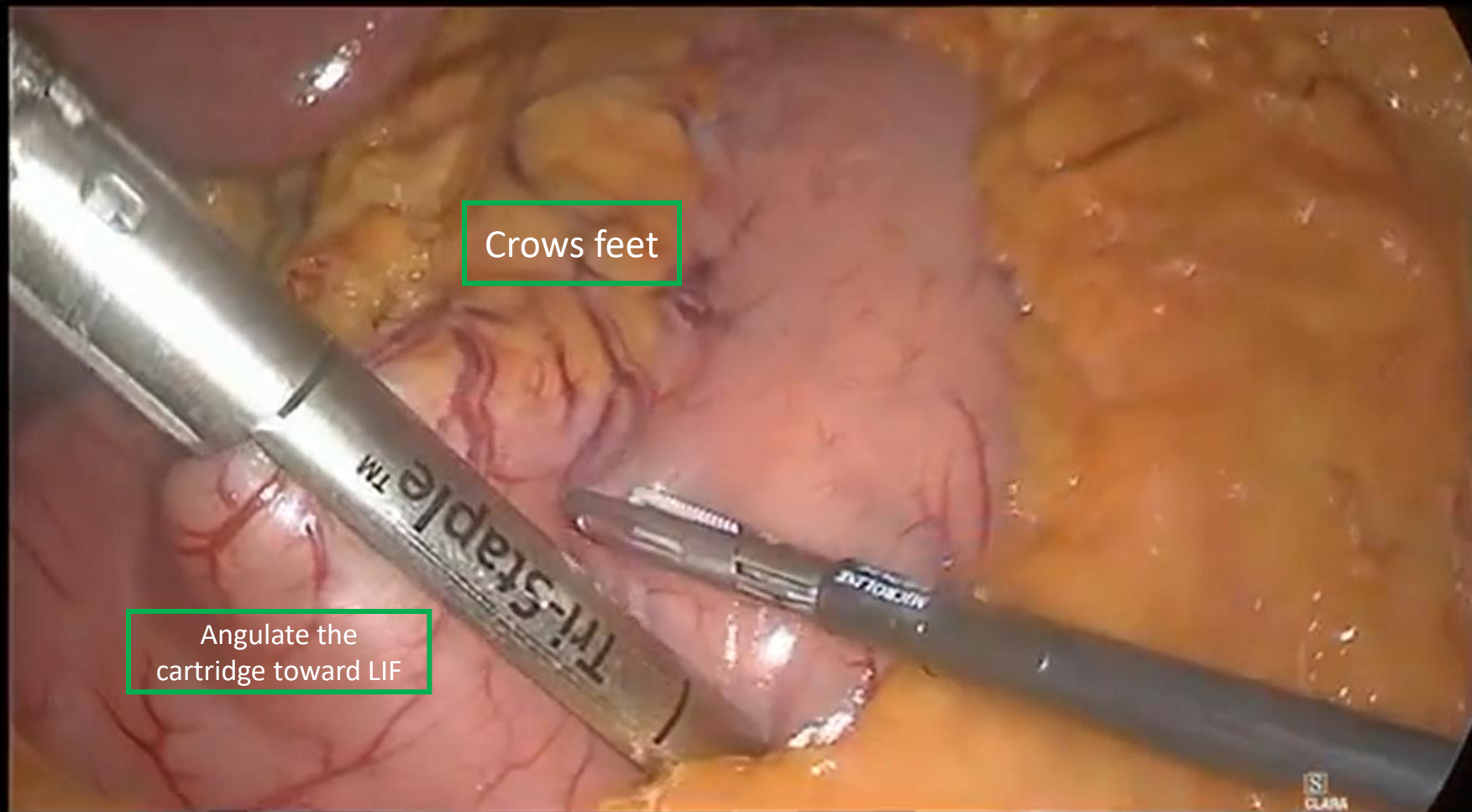


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WORKFLOW

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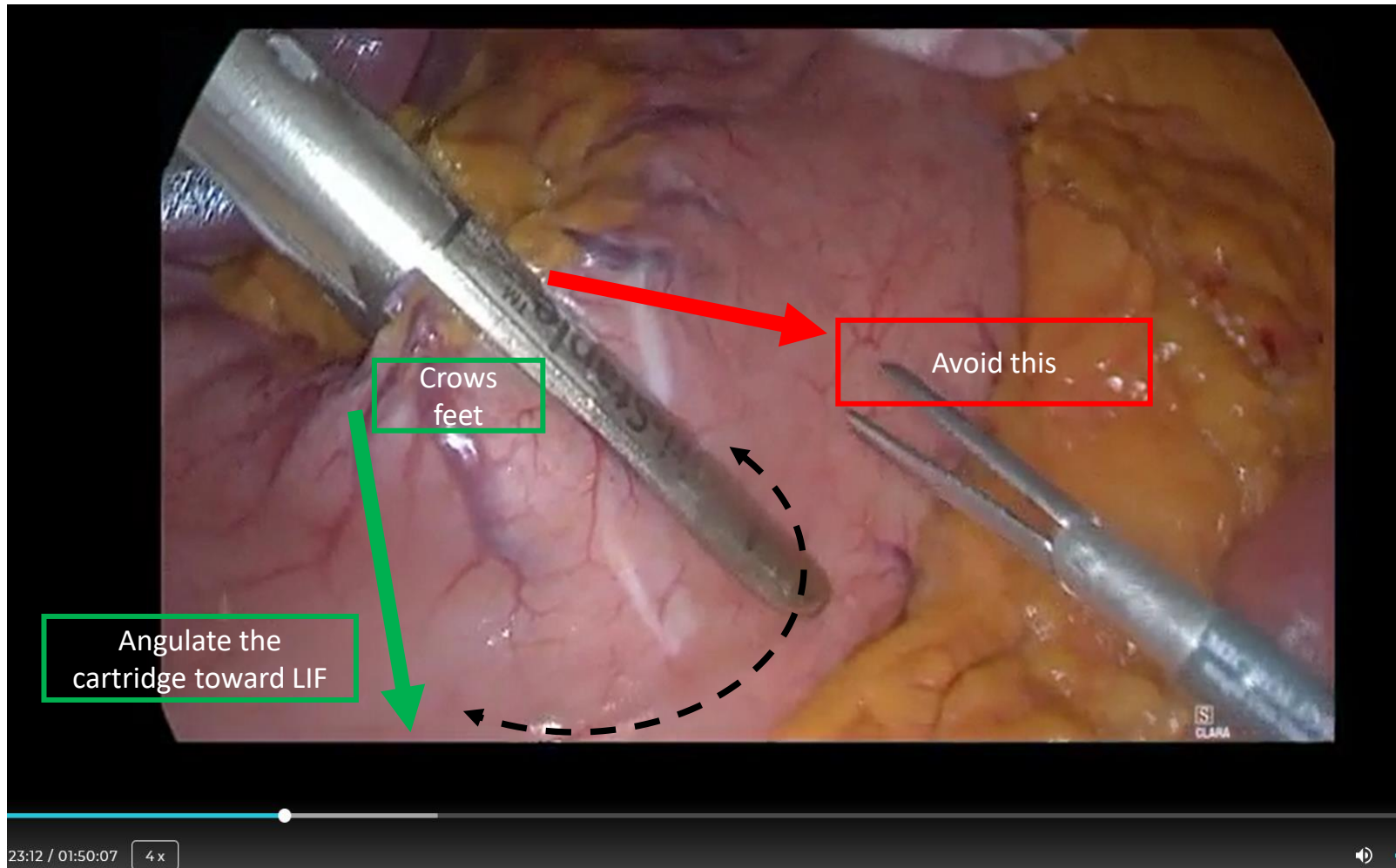
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Stapler from
Left hand of
the surgeon

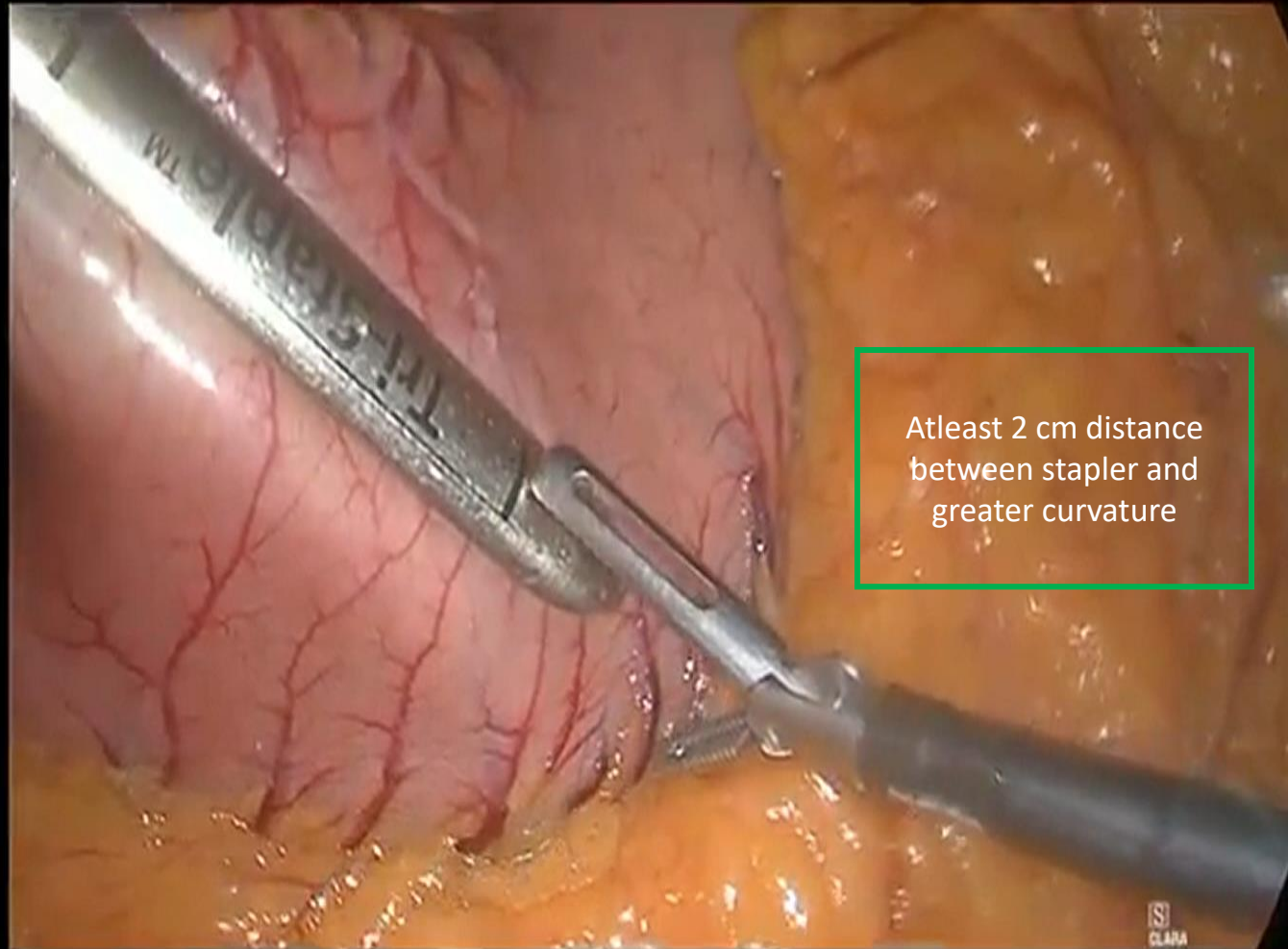
Crows feet

Angulate the
cartridge toward LIF



Mini Gastric Bypass: first report of 125 consecutive cases from United Kingdom

C D Parmar¹, K K Mahawar¹, M Boyle¹, W R J Carr¹, N Jennings¹, N Schroeder¹, S Balupuri¹, P K Small¹



Gastric Remnant Dilatation: a Rare Technical Complication Following Laparoscopic One Anastomosis (Mini) Gastric Bypass

Chetan Parmar et al.

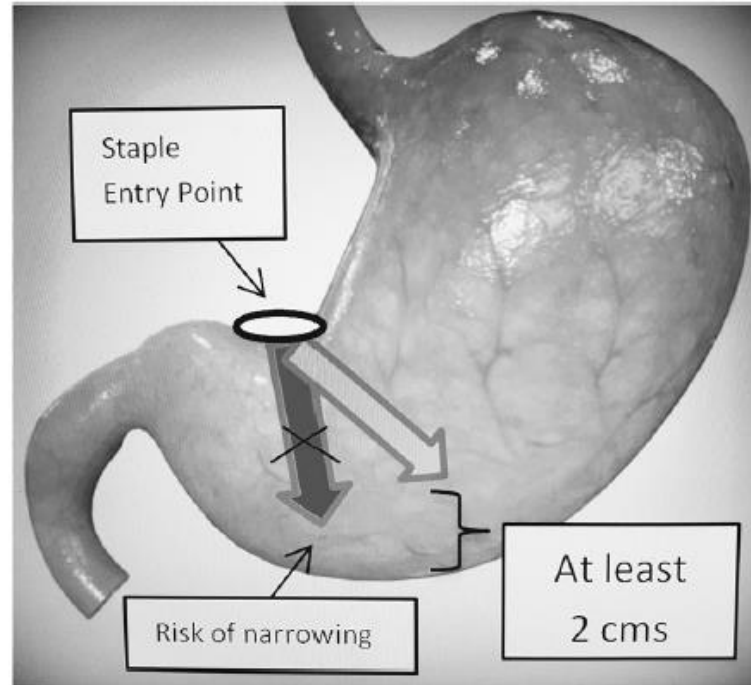
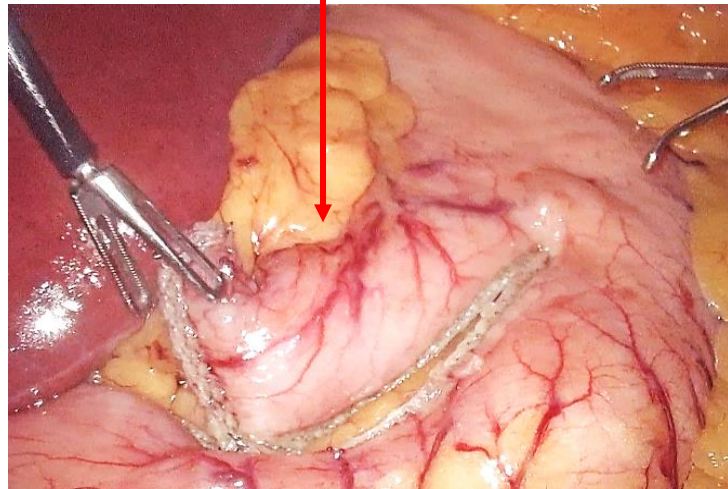
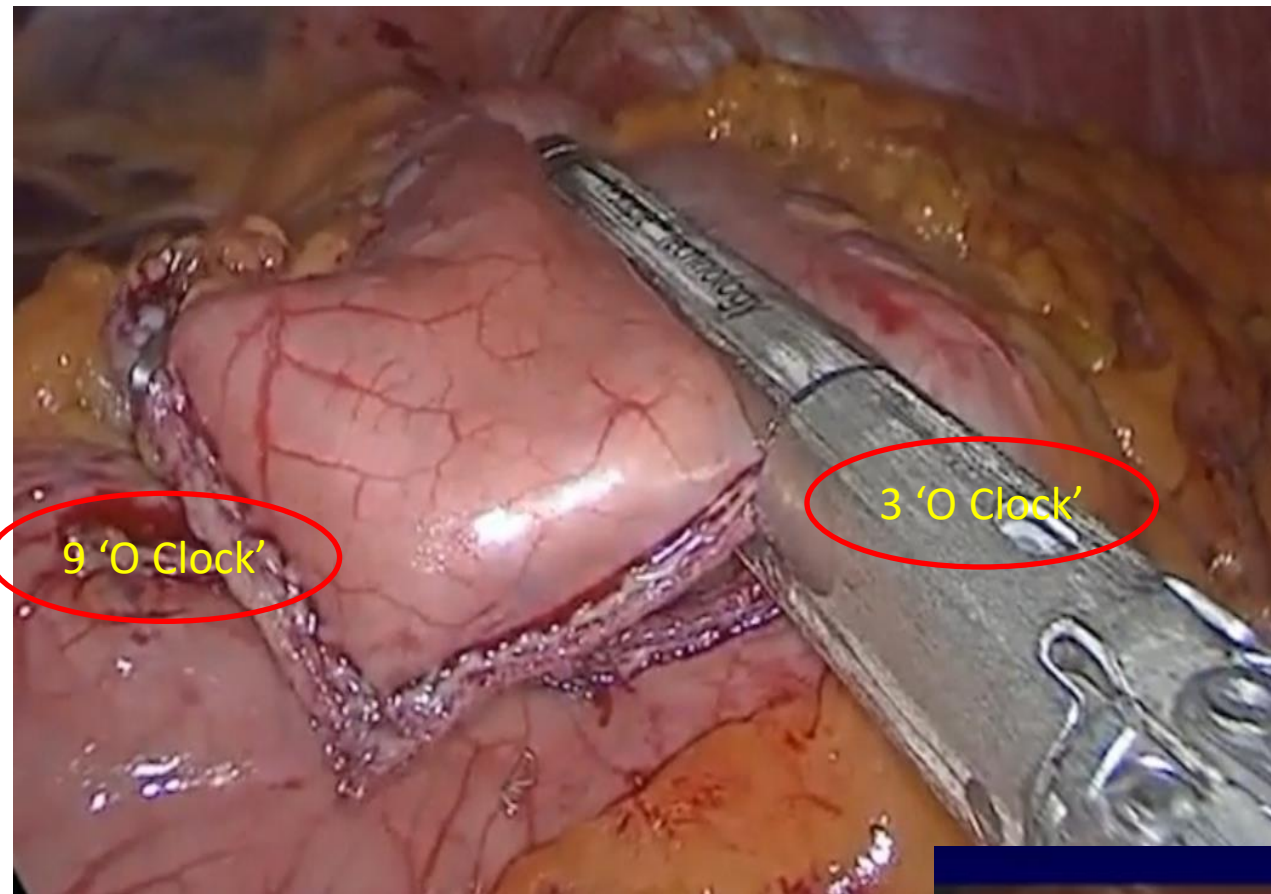


Fig. 2 The gastric pouch during performance of OAGB

36F bougie

Crows feet

1st stapler distal to that

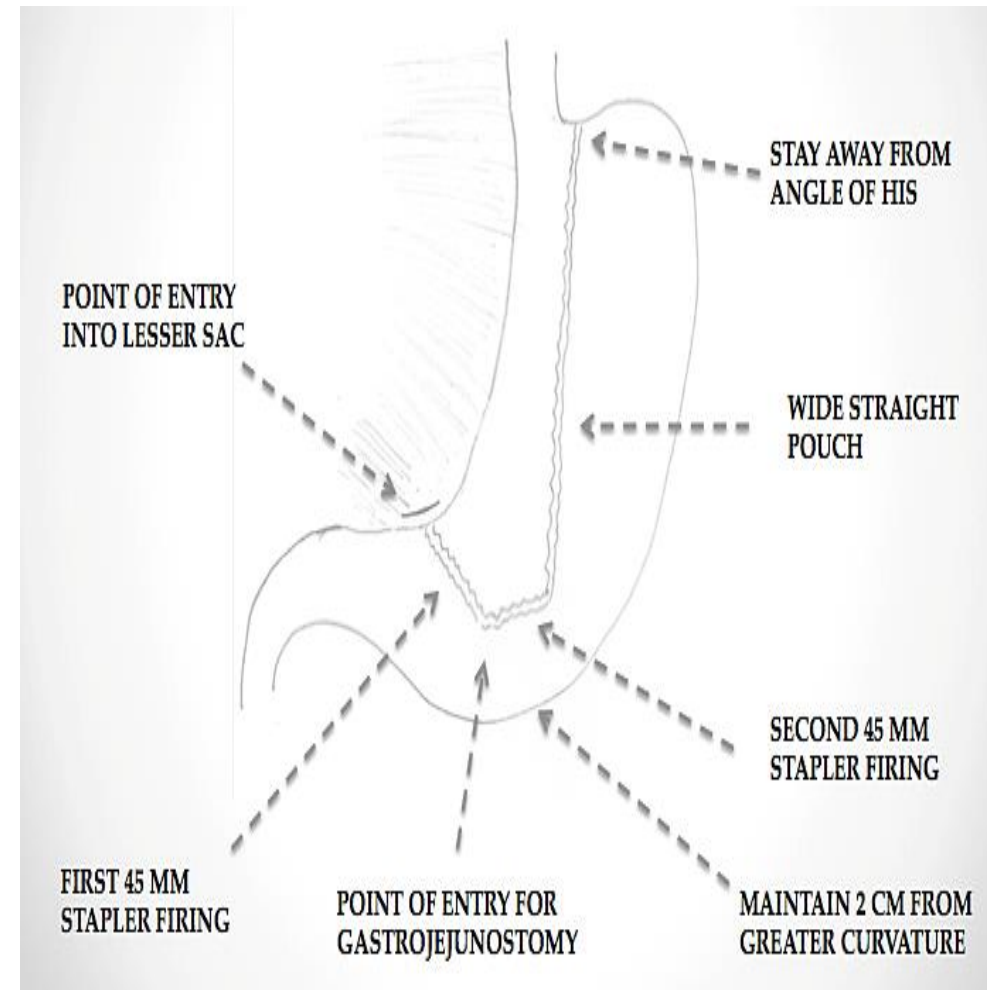


Avoid Twist in the pouch:

- Equal anterior and posterior stomach wall



- long gastric pouch calibrated on 36 – 38 F bougie
- Avoid twist at all cost
- Avoid unnecessary hiatal dissection
- Stay 1.5 cm from angle of HIS



> *Obes Surg.* 2020 May;30(5):1625-1634. doi: 10.1007/s11695-020-04519-y.

IFSO (International Federation for Surgery of Obesity and Metabolic Disorders) Consensus Conference Statement on One-Anastomosis Gastric Bypass (OAGB-MGB): Results of a Modified Delphi Study

Almino C Ramos ¹, Jean-Marc Chevallier ², Kamal Mahawar ³, Wendy Brown ⁴, Lilian Kow ⁵, Kevin P White ⁶, Scott Shikora ⁷, IFSO Consensus Conference Contributors

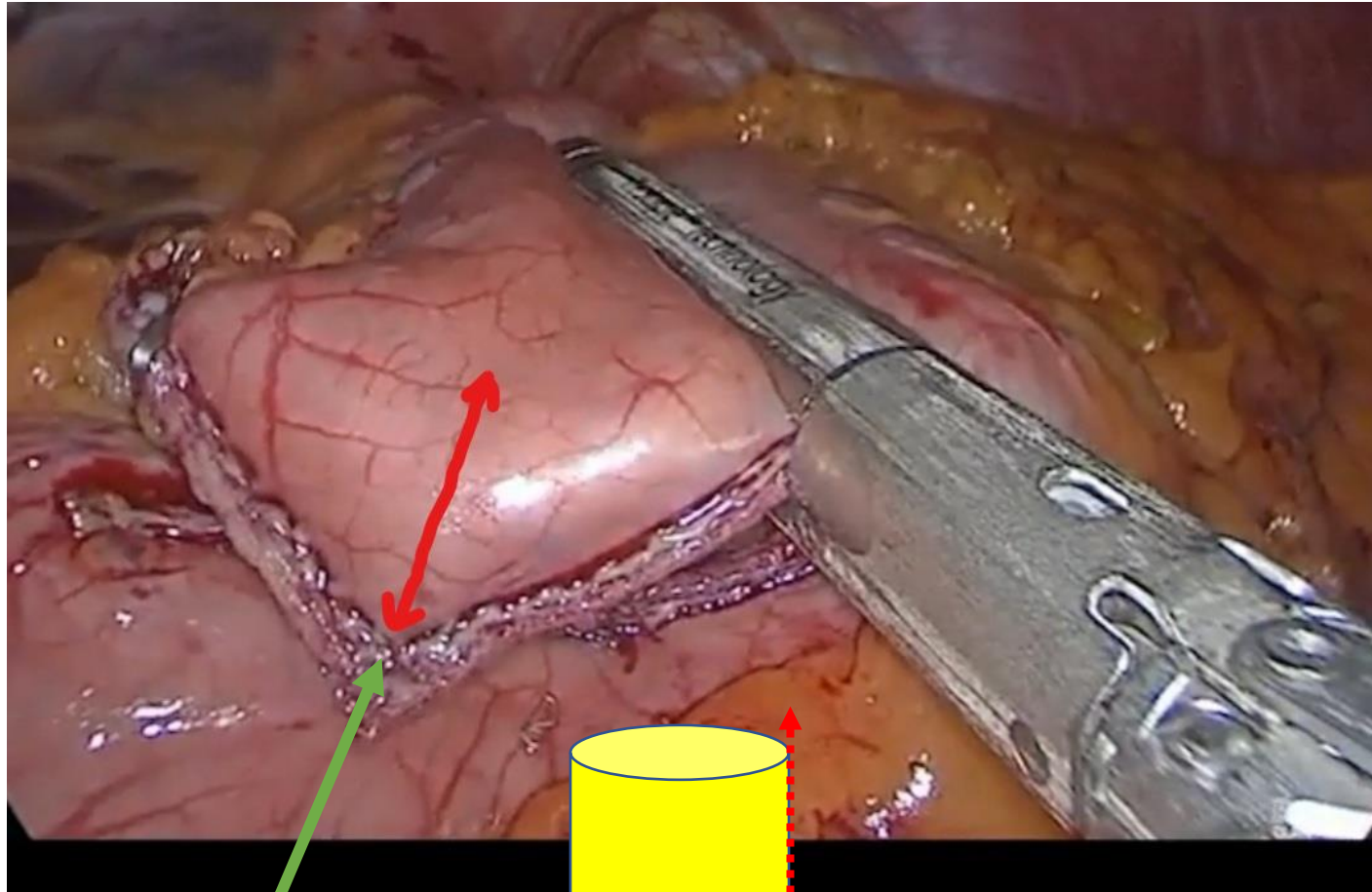
Gastro-Jejunal Anastomosis

- Avoid too small – predispose reflux / pouch dilatation
- Avoid too long (60mm) – Compromises on the gastric pouch length

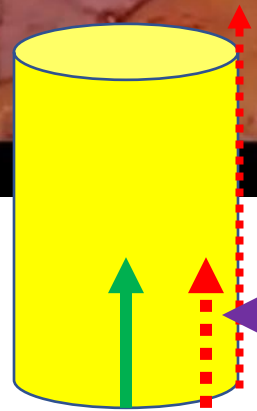
➤ [Obes Surg. 2020 May;30\(5\):1625-1634. doi: 10.1007/s11695-020-04519-y.](#)

IFSO (International Federation for Surgery of Obesity and Metabolic Disorders) Consensus Conference Statement on One-Anastomosis Gastric Bypass (OAGB-MGB): Results of a Modified Delphi Study

Statement	Number of Respondents	Response	Percentage
gastroenterostomy patency verification.			
The ideal width of the gastroenterostomy should be...	46	3-5 cm	85%
Esophagitis grade A or B is a contraindication to OAGB-MGB.	48	Disagree	81%



- Point of entry of stapler for GJA



- Ischemic segment
- ?marginal ulcer

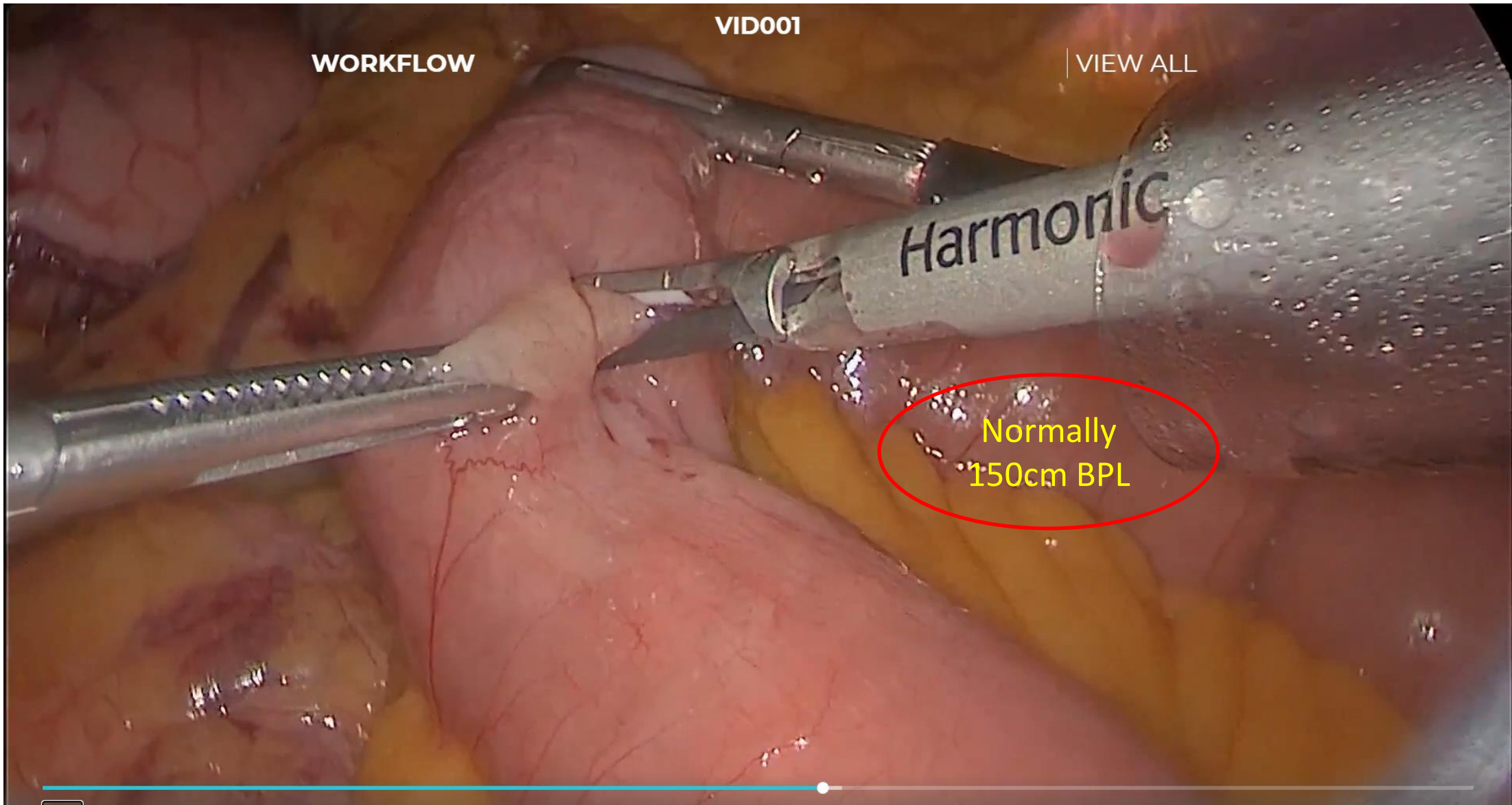
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Harmonic

Normally
150cm BPL



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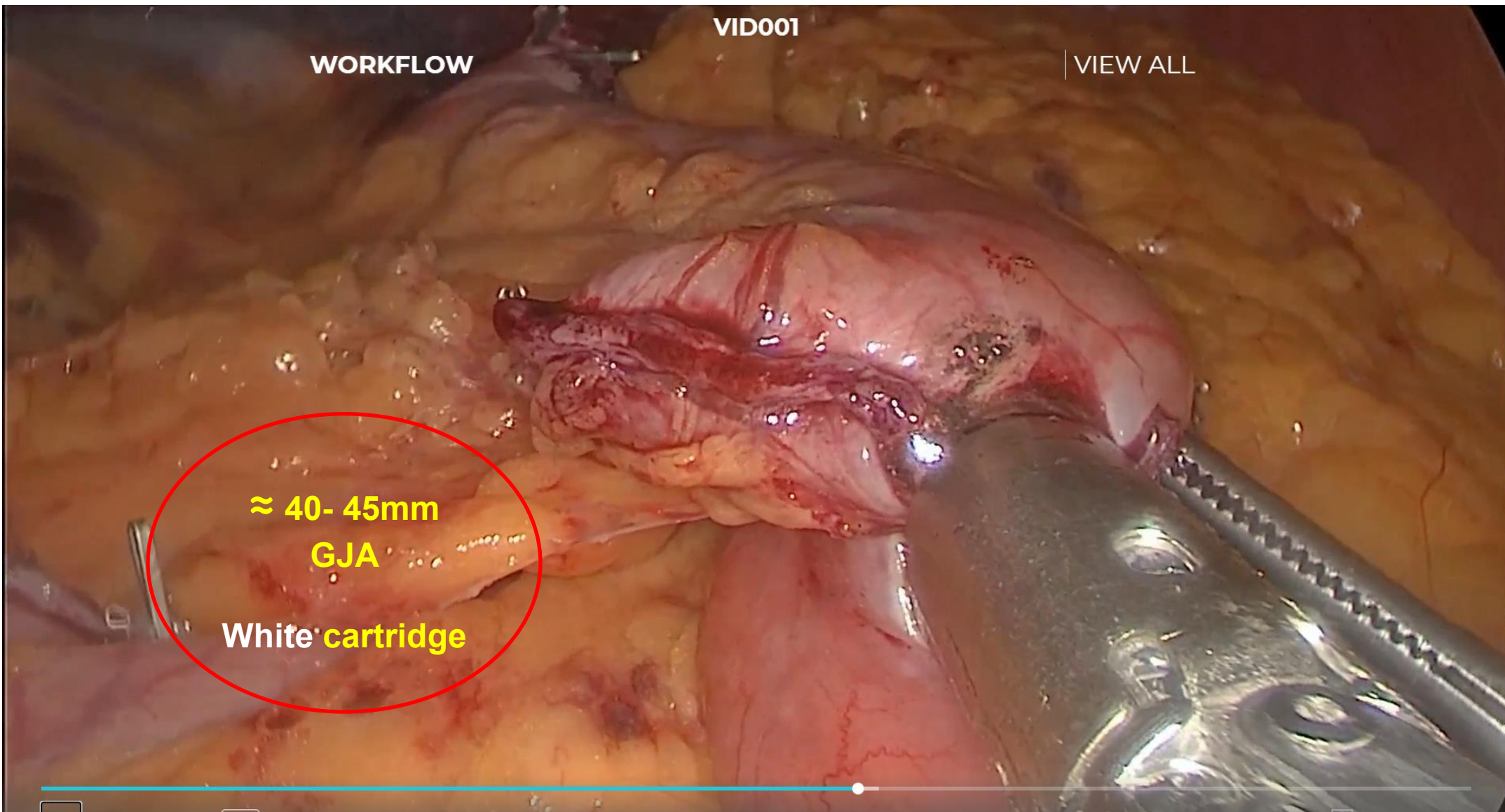
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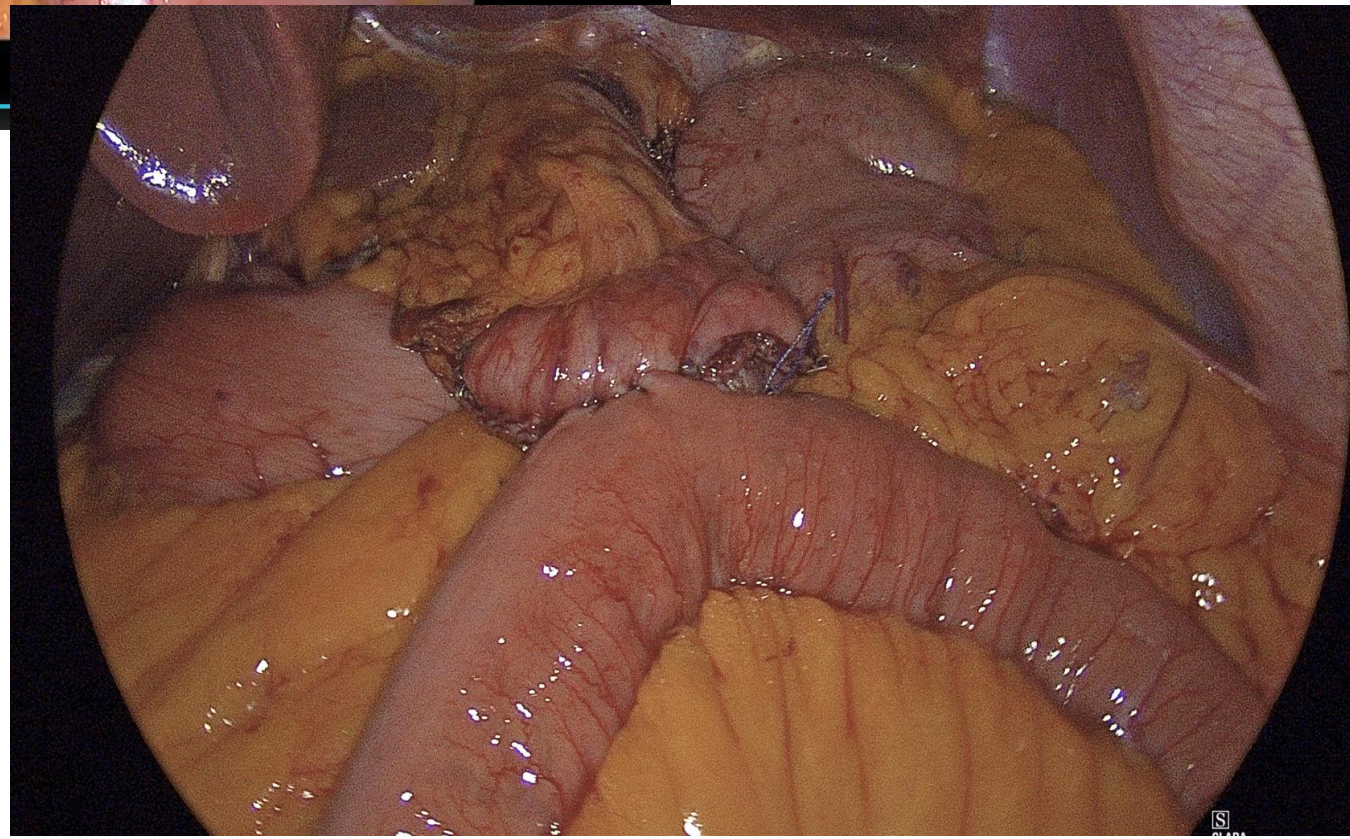
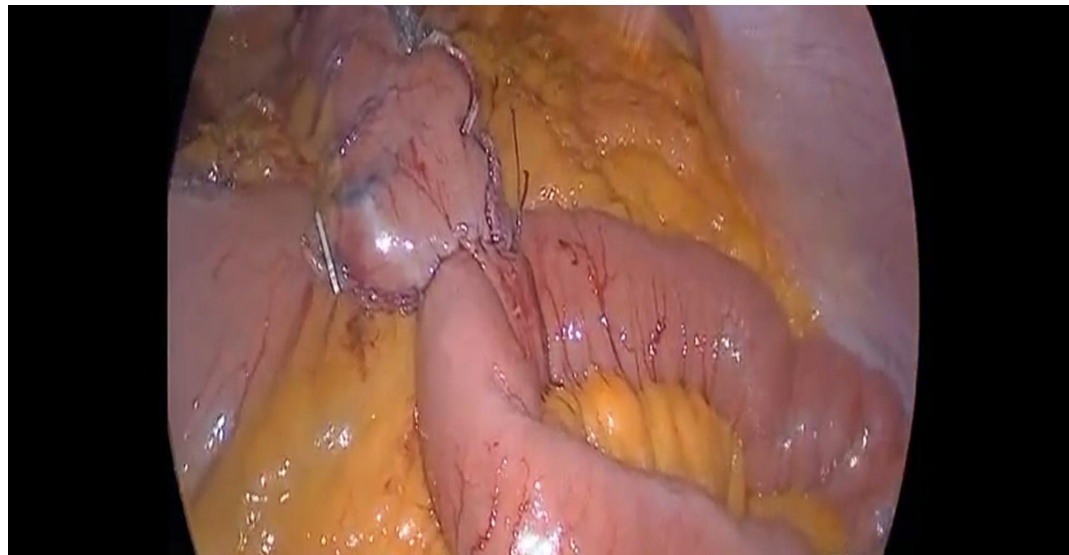
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≈ 40- 45mm

GJA

White cartridge





Limb length

- Standard for all?
- Tailored according to the BMI ?
- Measure whole small bowel length ?

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



Maud Robert, Philippe Espalieu, Elise Pelascini, Robert Caiazzo, Adrien Sterkers, Lita Khamphommala, Tigran Poghosyan, Jean-Marc Chevallier, Vincent Malherbe, Elie Chouillard, Fabian Reche, Adriana Torcivia, Delphine Maucort-Boulch, Sylvie Bin-Dorel, Carole Langlois-Jacques, Dominique Delaunay, François Pattou, Emmanuel Disse

- Higher incidences of diarrhoea, steatorrhoea, and nutritional adverse events were observed with a **200** cm biliopancreatic limb OAGB, suggesting a malabsorptive effect.



Original Research

Retrospective cohort study of 925 OAGB procedures. The UK MGB/OAGB collaborative group



Out of the **925** MGB-OAGB operations, we revised 22 [**2.3%**]

Table 2

Causes and management of revisions after One Anastomosis Gastric Bypass.

Revisional surgery/Re operation cause	No (%)	Management
Diarrhoea	5 (0.5%)	Shortening BPL to 150 cms
Afferent loop syndrome	4 (0.4%)	1 Braun/3 RYGB
GORD	3 (0.3%)	2 RYGB,1 Braun
Bleeding	3 (0.3%)	Exploration/bleeding control
Gastro-jejunosomy stenosis	2 (0.2%)	Revision of anastomosis
Liver decompensating/Failure	2(0.2%)	1 Shortening BPL/1 Reversal
Protein malnutrition	1(0.1%)	Reversal to normal anatomy
Excessive weight loss	1 (0.1%)	Shortening BPL to 150 cm
Perforated ulcer	1(0.1%)	Repair with patch
Total	22(2.3%)	

Table 3

Causes of revisions and the associated potential risk factors. EWL (Excess weight loss), GJ (Gastro-jejunostomy), LFTs (Liver function tests), ALS (Afferent loop syndrome).

Revision	BMI Kgm/ ² m	M/F	Hypertension Yes/No	Smoking Yes/No	Steroid Yes/No	Stapled/hand anastomosis	BPL [cm]	P value
Perforated stomal ulcer	51	M	Y	Y	N	Hand	210	0.3208
ALS	54	F	N	N	N	Hand	200	0.254
	50	F	N	N	N	Hand	180	
	49	F	N	N	N	Hand	200	
	44	F	Y	N	N	Hand	160	
Bleeding	50	F	N	N	N	Stapled	150	0.664
	45	F	N	N	N	Stapled	150	
	41	F	Y	N	N	Hand	150	
Deranged LFTs/Liver failure	50	F	N	N	N	Hand	300	0.0629
	52	F	N	Y	N	Hand	350	
Diarrhoea	40	M	N	N	N	Stapled	200	0.0013
	46	M	Y	N	N	Stapled	230	
	73	F	N	N	N	Stapled	220	
	42	F	N	N	N	Stapled	180	
	45	F	N	N	N	Stapled	200	
GJ stenosis	47	F	Y	Y	N	Hand	150	0.629
	43	F	N	N	N	Hand	150	
EWL	49	F	Y	Y	N	Hand	250	0.328
Bile reflux	42	F	N	N	Y	Stapled	150	0.0143
	39	M	N	Y	N	Stapled	180	
	45	F	N	N	N	Hand	200	
Protein malnutrition	73	F	N	N	N	Stapled	220	0.328
Total 22(2.3%)								

Lesson learnt: 150 - 200 cm limb length

One Anastomosis Gastric Bypass in Morbidly Obese Patients with BMI ≥ 50 kg/m²: a Systematic Review Comparing It with Roux-En-Y Gastric Bypass and Sleeve Gastrectomy

Chetan D. Parmar, Catherine Bryant, Enrique Luque-de-Leon, Cesare Peraglie, Arun Prasad, Karl Rheinwalt & Mario Musella

Obesity Surgery
The Journal of Metabolic Surgery and Allied Care
ISSN 0960-8923
OBES SURG
DOI 10.1007/s11695-019-04034-9



Springer

BPL Around 250cm

One Anastomosis (Mini) Gastric Bypass Is Now an Established Bariatric Procedure: a Systematic Review of 12,807 Patients

Chetan D. Parmar & Kamal K. Mahawar

Obesity Surgery
The Journal of Metabolic Surgery and Allied Care
ISSN 0960-8923
Volume 28
Number 9
OBES SURG (2018) 28:2956-2967
DOI 10.1007/s11695-018-3382-x



Springer

BPL Around 200 cm

A Systematic Review of One Anastomosis/ Mini Gastric Bypass as a Metabolic Operation for Patients with Body Mass Index ≤ 35 kg/m²

Chetan D. Parmar, Roxanna Zakeri & Kamal Mahawar

Obesity Surgery
The Journal of Metabolic Surgery and Allied Care
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DOI 10.1007/s11695-019-04293-6



Springer

BPL Around 120cm



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One Anastomosis/Mini Gastric Bypass (OAGB-MGB) as revisional bariatric surgery after failed primary adjustable gastric band (LAGB) and sleeve gastrectomy (SG): A systematic review of 1075 patients

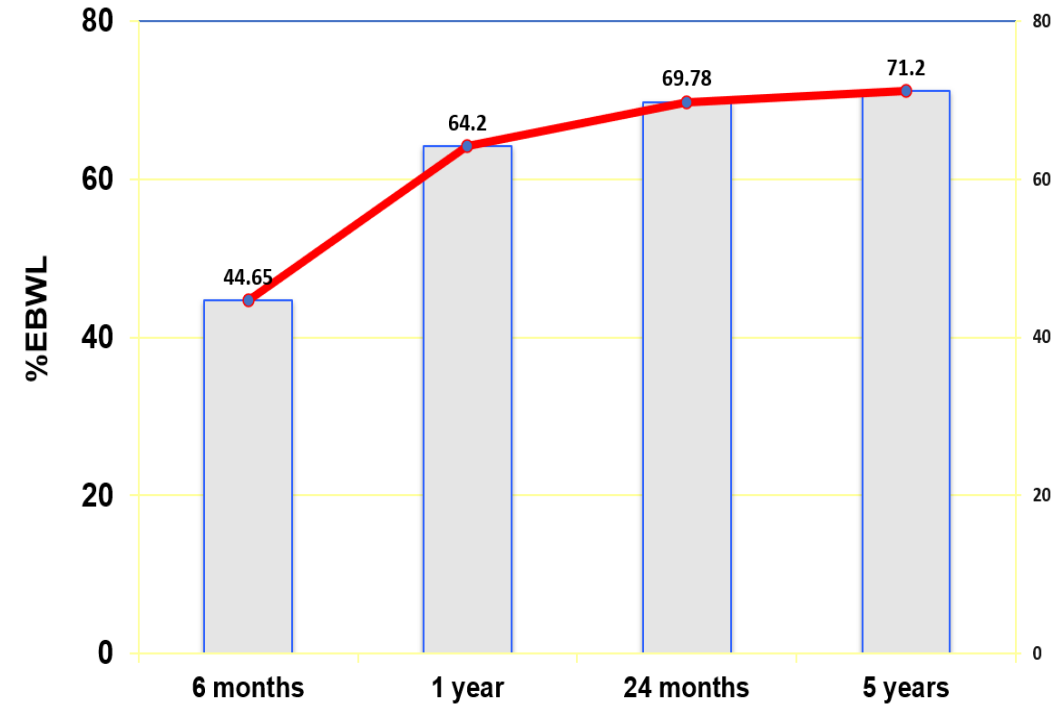
Chetan D. Parmar^{a,b,*}, Jonathan Gan^c, Christine Stier^d, Zhiyong Dong^e, Sonja Chiappetta^f, Luciana El-Kadre^g, Moataz M. Bashahⁱ, Cunchuan Wang^e, Nasser Sakran^h



Median BPL 200 cm

Measure whole small bowel length

Weight Loss Outcomes



150 – 200 cm Limb length

>200 cm : Suggest measure all small bowel

A biliopancreatic limb of 200 cm or longer may increase the risk of malabsorption and protein-calorie malnutrition and should only be done after measuring total bowel length.	47	Agree	91%
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Post-operative

TABLE I.—*Suggested dosages for supplementation of various micronutrients after OAGB.*

Micronutrient	Dosages
Multivitamin/mineral	One tablet twice a day (each containing at least 1.0 mg copper and 15 mg zinc)
Vitamin B ₁₂	1 mg injection 3 monthly or 1.5 mg orally daily
Iron	120 mg elemental iron daily
Calcium	1500 mg elemental calcium daily
Vitamin D	3000 IU daily

Received: 5 April 2020 | Revised: 21 May 2020 | Accepted: 31 May 2020

DOI: 10.1111/obr.13087

BARIATRIC SURGERY

OBESITY WILEY

British Obesity and Metabolic Surgery Society Guidelines on perioperative and postoperative biochemical monitoring and micronutrient replacement for patients undergoing bariatric surgery—2020 update

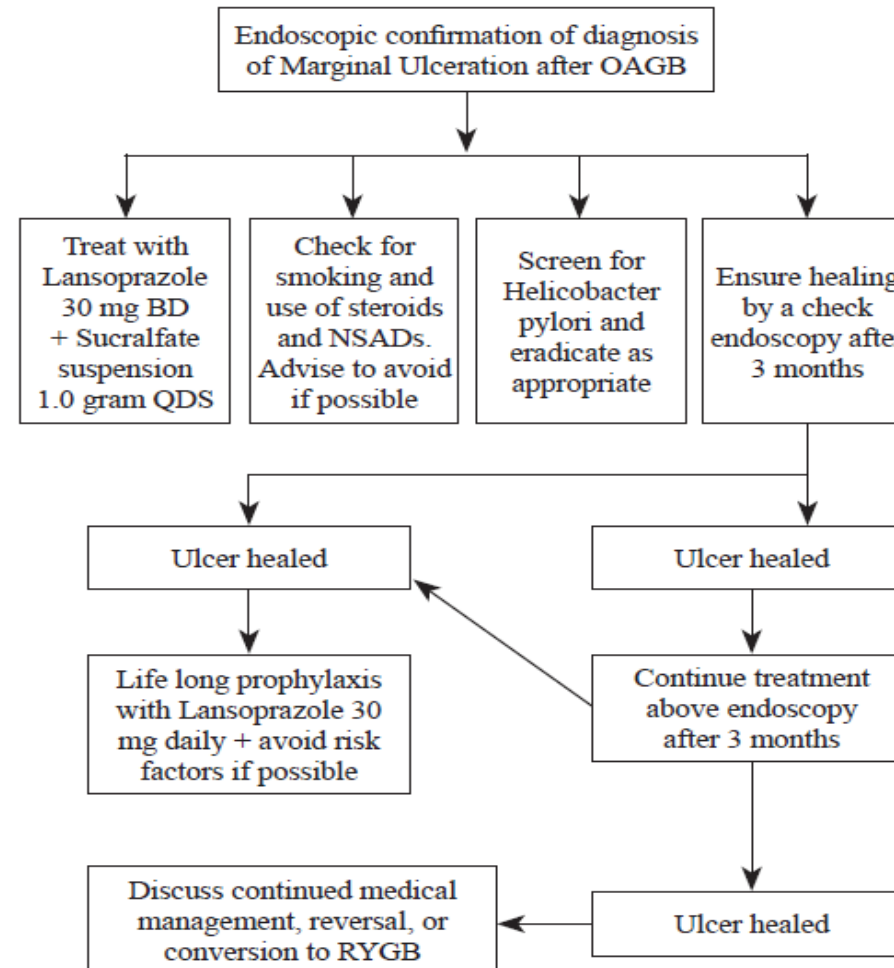
Mary O'Kane¹ | Helen M. Parretti² | Jonathan Pinkney^{3,4} |

Marginal ulcer

- Marginal Ulcer
- PPI Prophylaxis

Postoperative continuous use PPI prophylaxis should be recommended for how many months?

No consensus
 1-3 months—30%
 4-6 months—57%
 7-12 months—11%
 >12 months—2%



NSAID: Non-Steroidal Anti-Inflammatory Drugs

Figure 2.—Our suggested algorithm for management of marginal ulcers after OAGB.

Management of leaks following one-anastomosis gastric bypass: an updated systematic review and meta-analysis of 44 318 patients

Mohammad Kemansaravi, MD^{a,b,*}, Radwan Kassir, MD, PhD^{e,f}, Rohollah Valizadeh, PhD^{c,d}, Chetan Pamar, MS, DNB, FRCS^g, Amir Hossein Davarpanah Jazi, MD^d, Shahab Shahabi Shahmiri, MD, MPH^c, Marine Benois, MD^f

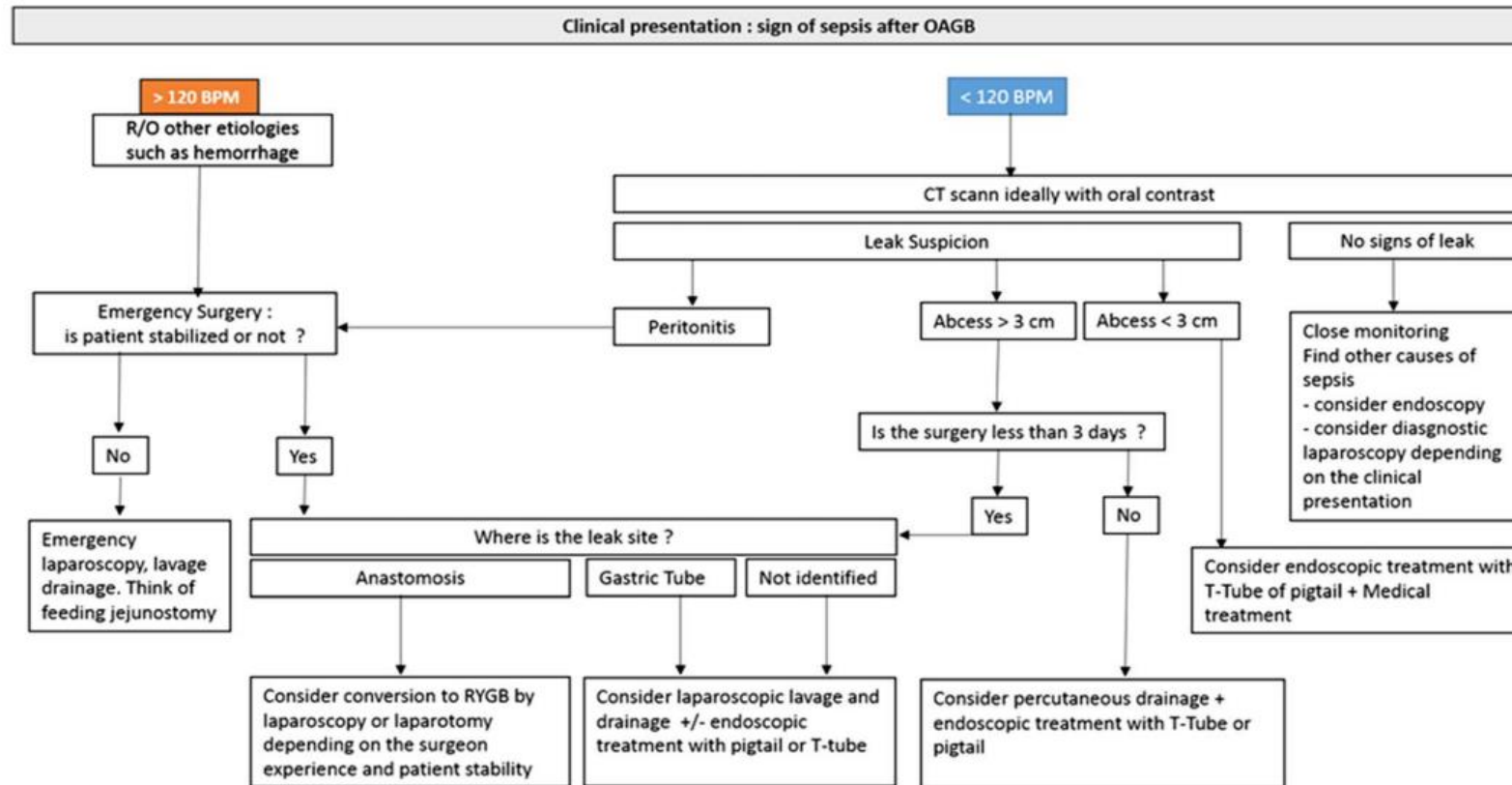


Figure 5. Suggested algorithm regarding the management of patients with a suspicion of the leak. CT, computed tomography; R/O, rule out; RYGB, Roux-en-Y gastric bypass.

Evidence

Obesity Surgery
<https://doi.org/10.1007/s11695-024-07345-8>



ORIGINAL CONTRIBUTIONS



Revision/Conversion Surgeries After One Anastomosis Gastric Bypass—An Experts' Modified Delphi Consensus

Mohammad Kermansaravi¹ · Sonja Chiappetta² · Chetan Parmar³ · Miguel A. Carbajo⁴ · Mario Musella⁵ · Jean-Marc Chevallier⁶ · Rui Ribeiro⁷ · Almíro C. Ramos⁸ · Rudolf Weiner⁹ · Abdelrahman Nimeri¹⁰ · Syed Imran Abbas¹² · Ahmad Bashir¹³ · Estuardo Behrens¹⁴ · Helmuth Billy¹⁵ · Ricardo V. Cohen¹⁶ · Maurizio De Luca¹⁸ · Bruno Dillemans¹⁹ · Mathias A. I. Fobi²⁰ · Manoel Galvão Neto²¹ · Khaled Gav

> *Obes Surg.* 2021 Jul;31(7):3317-3319. doi: 10.1007/s11695-021-05346-5. Epub 2021 Mar 15.

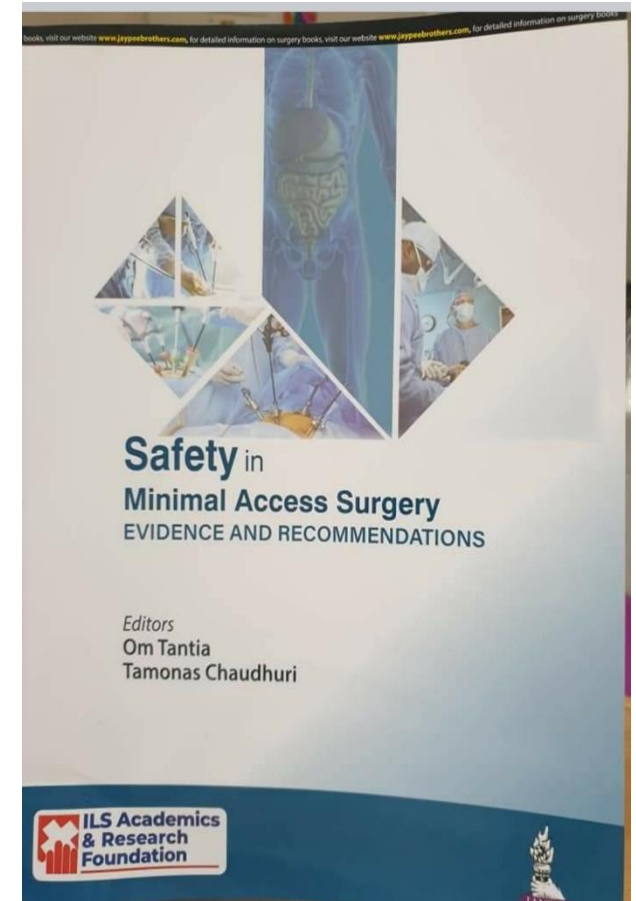
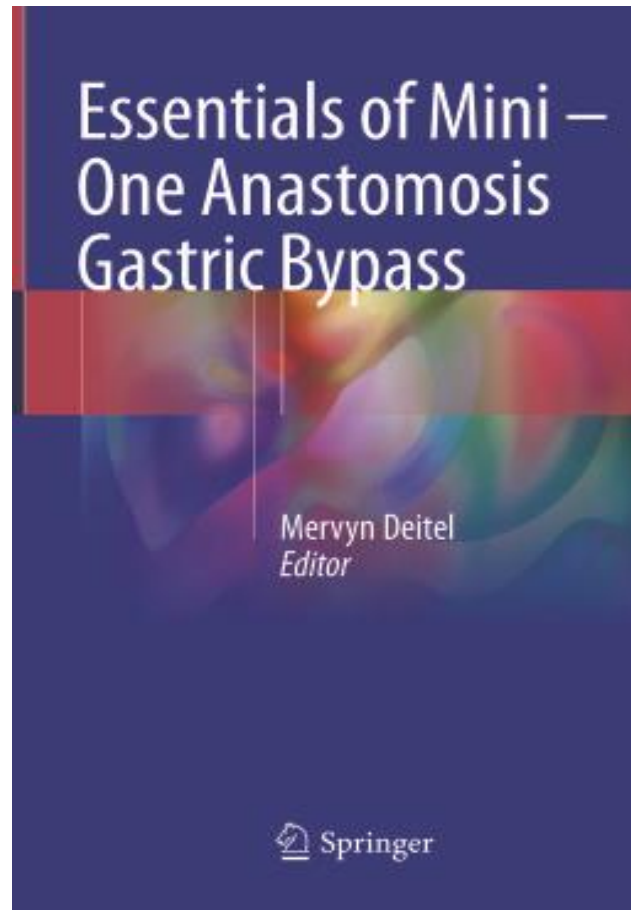
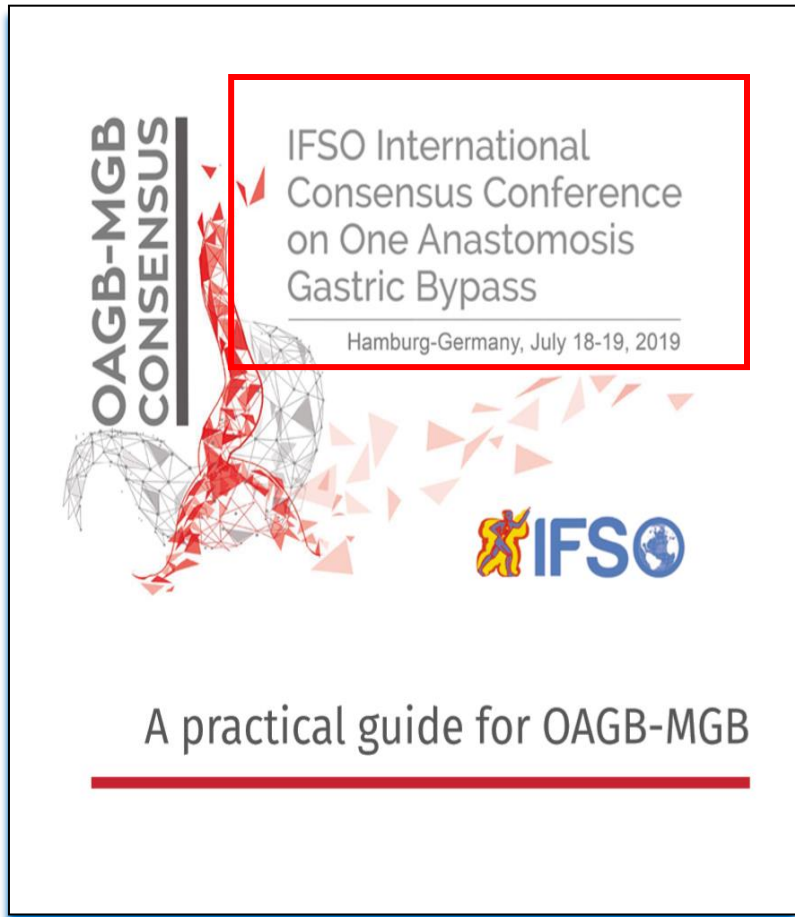
The First Report of One Anastomosis Gastric Bypass in a Patient with Intestinal Malrotation

Andreas Plamper¹, Mana Kakuan², Fabio Russo Conejero³, Chetan Parmar^{4 5}, Karl Rheinwalt³

> *Obes Surg.* 2022 May;32(5):1757-1760. doi: 10.1007/s11695-022-05906-3. Epub 2022 Jan 22.

First Report of One Anastomosis Gastric Bypass Performed in Twins

Chetan D Parmar¹, Karen Bosch², Rami Benhmida², Niamh O'Connell², Cleverly Fong², Rachel Batterham³



MODULE I — FUNDAMENTALS OF OAGB-MGB

Guidelines from the MGB International Club

Karl Rheinwalt, Germany

Chetan Parmar, UK

17 Treatment of Marginal Ulcer 153
 Chetan D. Parmar

SANJAY AGRAWAL
EDITOR

Obesity, Bariatric and Metabolic Surgery

A Comprehensive Guide
Second Edition



Associate Editor



Chetan Parmar
Department of General and Bariatric Surgery
Whittington Hospital NHS Trust
London, UK

University College London
London, UK



Faculty

EMEA Advanced Pathway: OAGB Masterclass

Emilio Manno
AORN "A. Cardarelli", Naples, Italy

Chetan Parmar
Whittington Hospital, London, UK

Carlos Trindade
Centro Multidisciplinar da Doença Metabólica da CLISA - Lusíadas,
Lisbon, Portugal

Octavio Viveiros
Centro Multidisciplinar da Doença Metabólica da CLISA - Lusíadas,
Lisbon, Portugal

Meet the top

Jean Marc Chevallier
Department of Digestive and General Surgery, Hôpital Européen
Georges Pompidou, Paris 5 University, Paris, France

Scott A. Shikora
Department of Surgery, Brigham and Women's Hospital, Harvard
Medical School, Boston, MA, USA

Section VI Laparoscopic One Anastomosis Gastric Bypass (OAGB)/Mini Gastric Bypass (MGB): Mechanism of Action, Techniques, Complications, Outcomes, and Controversies

- 40 **Laparoscopic One Anastomosis Gastric Bypass/Mini
Gastric Bypass: MGB Technique**
Chetan Parmar, Robert Rutledge, Kuldeepak S. Kular, and
Mervyn Deitel
- 41 **Laparoscopic One Anastomosis Gastric Bypass
(OAGB)/Mini Gastric Bypass (MGB):
OAGB Technique** 573
Enrique Luque-de-León and Miguel A. Carbajo



Conclusions

- Is there a “best technique”? - YES
- Start with ‘simple’, ‘primary’ cases
- MDT
- Mentor
- Read/watch
- High volume





**14th Congress of the International Federation
for the Surgery of Obesity & Metabolic Disorders
European Chapter (IFSO-EC)**

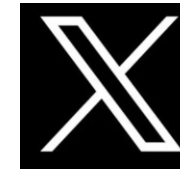
6 - 9 May 2026 | Málaga, Spain

Save the date!



ifso-ec2026.com

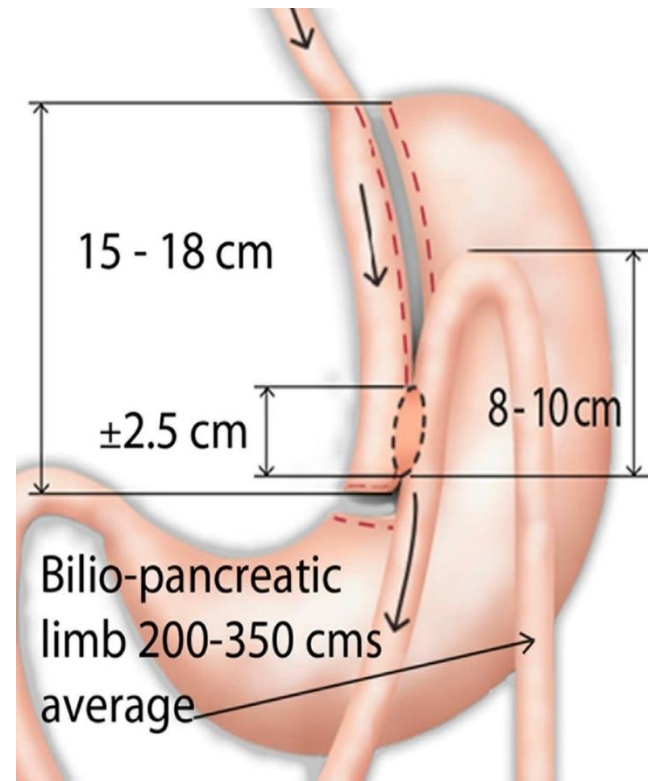
Thank you



@dracdparmar

OAGB

Anti-reflux stitch



Most surgeons do:
Hybrid

Internal Hernia

[J Visc Surg.](#) 2016 Jun;153(3):231-2. doi: 10.1016/j.jviscsurg.2016.01.003. Epub 2016 Feb 23.

Internal hernia after mini-gastric bypass: Myth or reality?

[Facchiano E](#)¹, [Iannelli A](#)², [Lucchese M](#)³.

[Case Rep Surg.](#) 2018 Apr 1;2018:9576120. doi: 10.1155/2018/9576120. eCollection 2018.

Petersen's Space Internal Hernia after Laparoscopic One Anastomosis (Mini) Gastric Bypass.

[Kermansaravi M](#)^{1,2}, [Kazazi M](#)³, [Pazouki A](#)^{1,2}.

> [Obes Surg.](#) 2021 Jun;31(6):2537-2544. doi: 10.1007/s11695-021-05269-1. Epub 2021 Apr 8.

Internal Hernia After One Anastomosis Gastric Bypass (OAGB): Lessons Learned from a Retrospective Series of 3368 Consecutive Patients Undergoing OAGB with a Biliopancreatic Limb of 150 cm

[Niccolo Petrucciani](#)^{1 2}, [Francesco Martini](#)³, [Radwan Kassir](#)⁴, [Gildas Juglard](#)³, [Celine Hamid](#)³, [Hubert Boudrie](#)³, [Olivier Van Haverbeke](#)³, [Arnaud Liagre](#)³

*None had ischaemic bowel and did not need bowel resection
Persistent reflux? Abdo pain?
? CT Scan ? Laparoscopy*

One Anastomosis **Gastric Bypass** with a Biliopancreatic Limb of **150** cm: Weight Loss, Nutritional Outcomes, Endoscopic Results, and Quality of Life at **8-Year Follow-Up**.

Liagre A, Debs T, Kassir R, Ledit A, Juglard G, Chalret du Rieu M, Lazzati A, Martini F, Petrucciani N. *Obes Surg.* 2020 Nov;30(11):4206-4217. doi: 10.1007/s11695-020-04775-y.

- Mean preoperative BMI 43.2 ± 5.8 kg/m².
- At **8 years**, %TWL 34.8 ± 10.7 , and **%EWL 84.8 ± 27.1** .
- No patients were readmitted for nutritional complications or underwent revisional surgery for malnutrition;

Liver
retractor
removed

> [Obes Surg.](#) 2021 Jun 26. doi: 10.1007/s11695-021-05499-3. Online ahead of print.

Is One Anastomosis Gastric Bypass with a Biliopancreatic Limb of 150 cm Effective in the Treatment of People with Severe Obesity with BMI > 50?

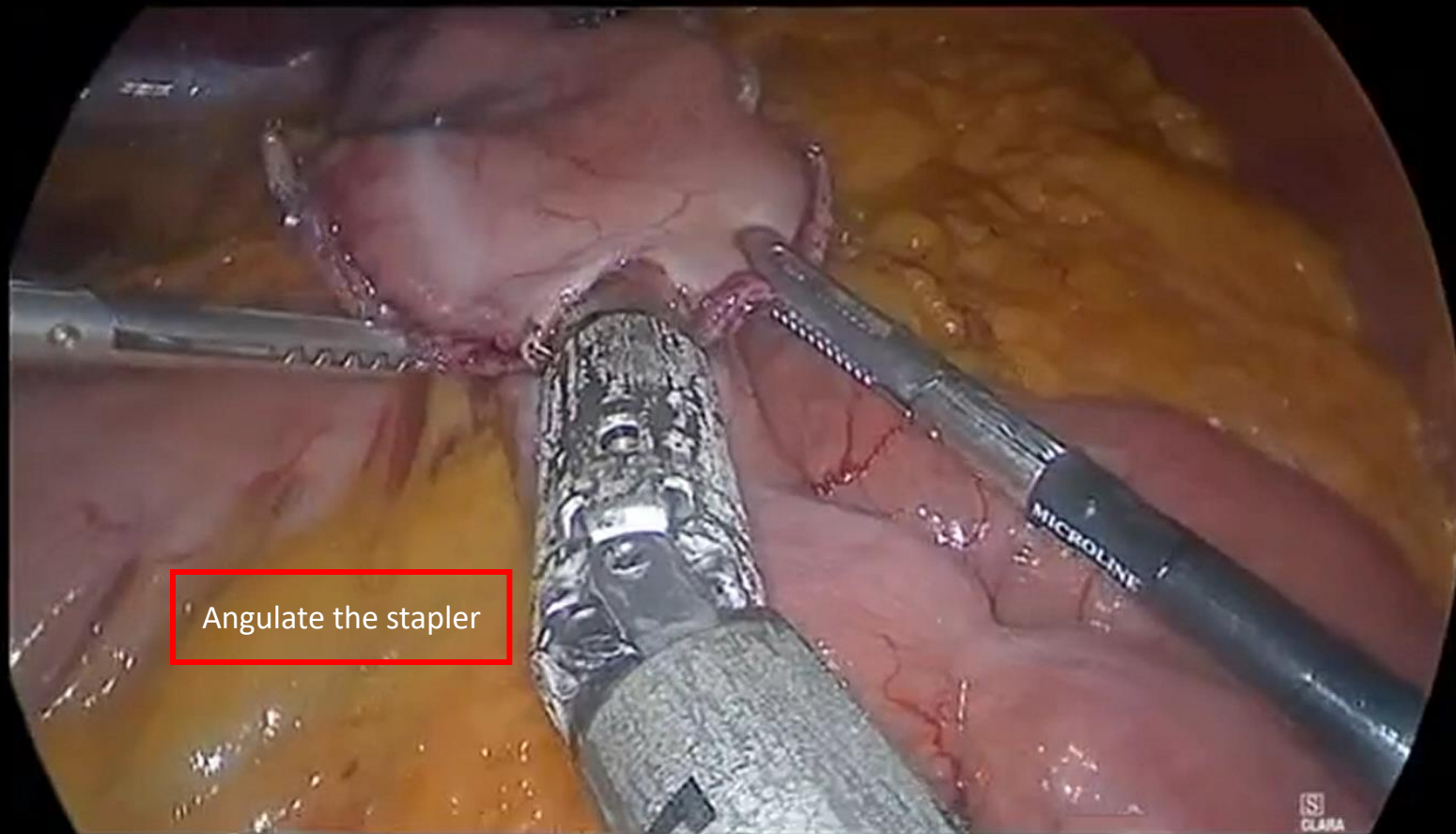
Arnaud Liagre ¹, Francesco Martini ¹, Radwan Kassir ², Gildas Juglard ¹, Celine Hamid ¹, Hubert Boudrie ¹, Olivier Van Haverbeke ¹, Laura Antolino ³, Tarek Debs ⁴, Niccolo Petrucciani ⁵

- 245 patients underwent OAGB
- At 60 months, %TWL was 41.9 ± 10.2 , and **%EWL was 78.1 ± 18.3** (79 patients).
- Only two patients (**0.8%**) underwent a second bariatric surgery for insufficient weight loss.

VID001

WORKFLOW

VIEW ALL



Angulate the stapler



01:11:33 / 01:50:07

1x

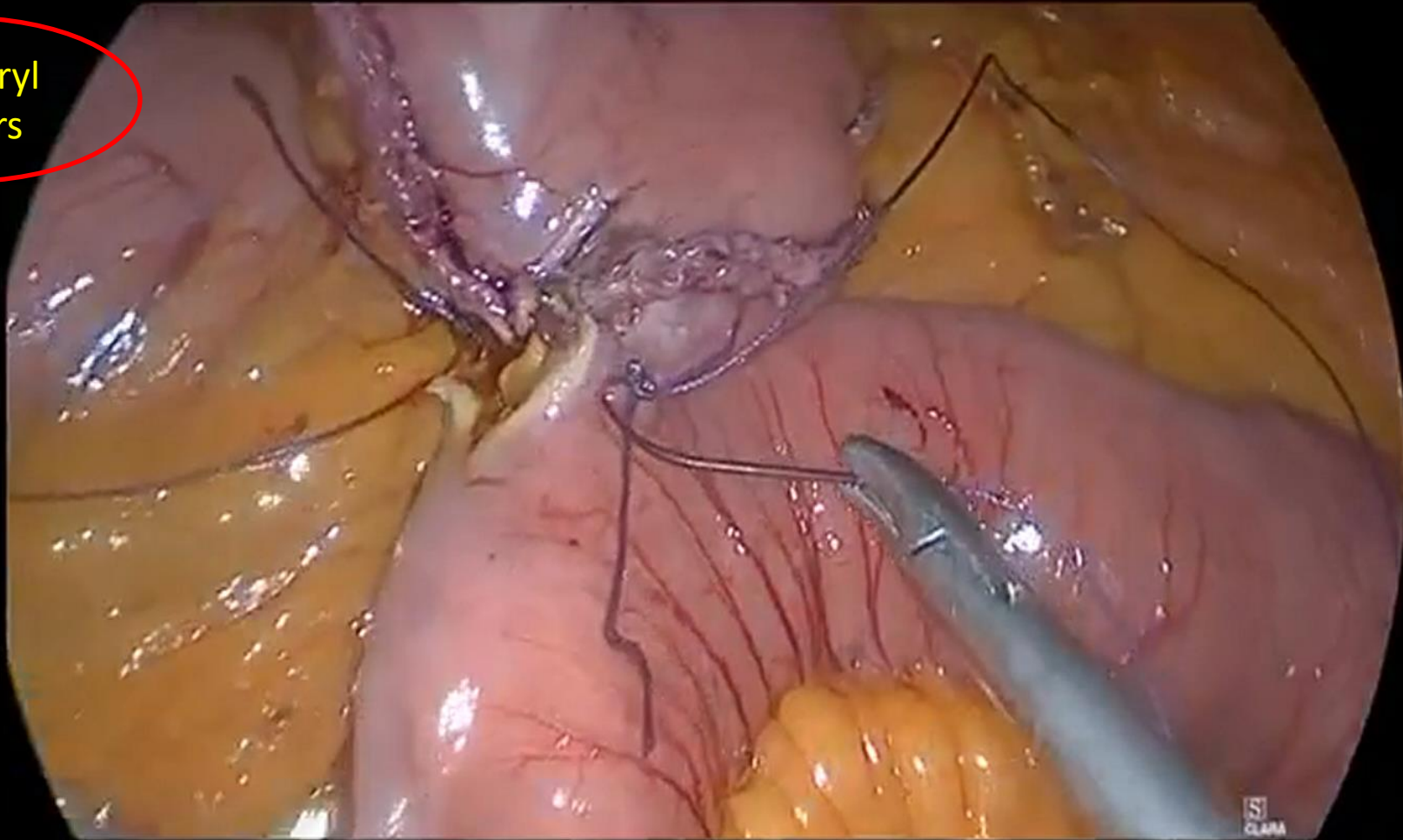


VID001

WORKFLOW

VIEW ALL

2.0 Vicryl
2 layers



Twisted pouch

