

LSG as a first step procedure for oncologic purposes: **An indication beyond the new guidelines**

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LSG as a first step procedure for
oncologic purposes:
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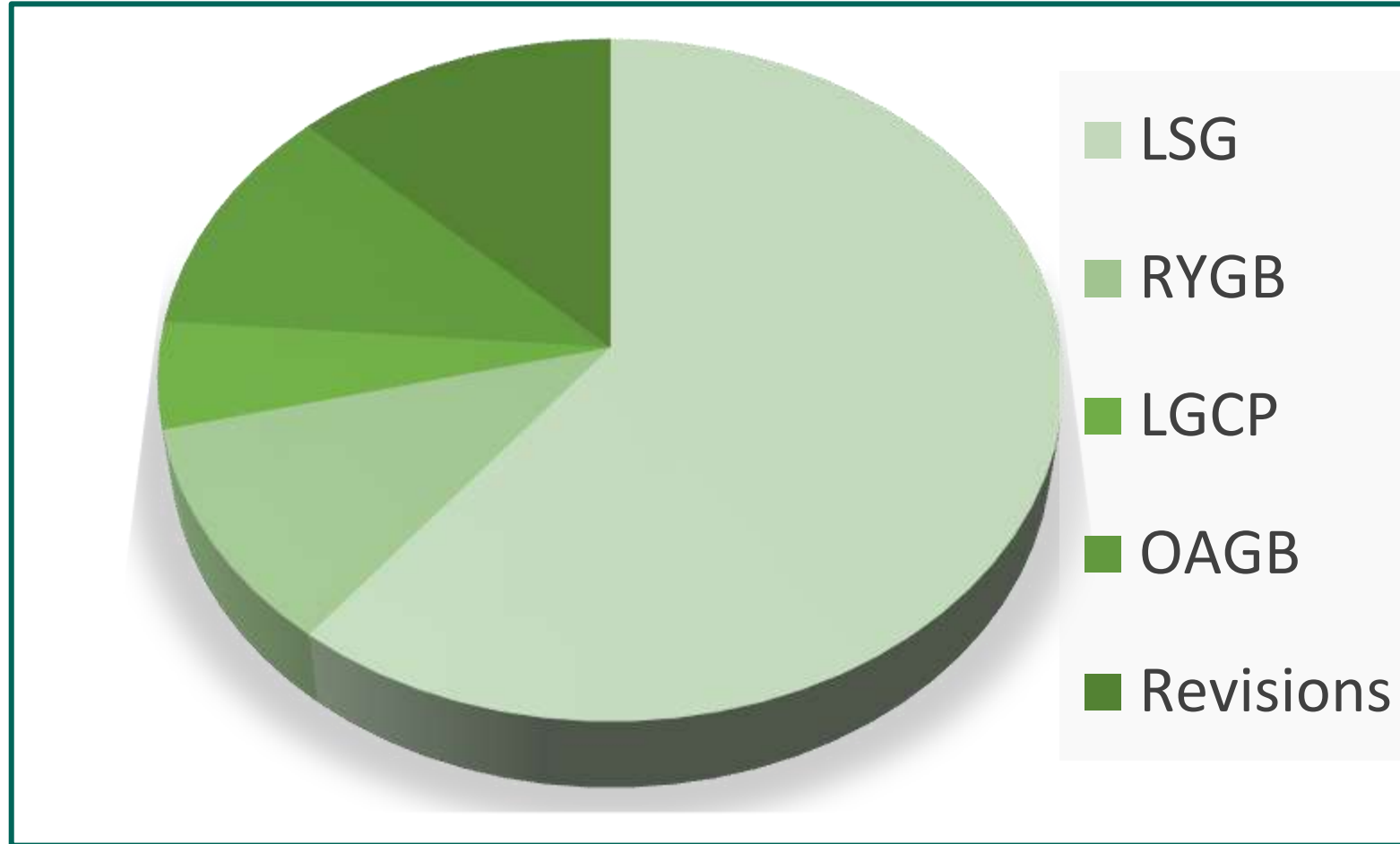
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Rodrigue Chemaly**

Disclosure of Potential Conflict of Interest



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

Case Mix Disclosure Slide



BACKGROUND

- Obesity is an attributed risk factor for **cancer**
 - Increased risk of cancer in 13 different anatomical sites
- Obesity is a risk factor for **post-operative complications**
 - Any type: OBGYN, General, Transplant, Oncologic
- **LSG** is established as a **safe and effective** way for weight loss
 - Leak rate (0.7-2.7%), Bleeding (1.1%-4.9%), DVT/PE (0.5%)
 - First Stage, Standalone Bariatric, Metabolic, Bridging

Avgerinos KI, Metabolism, 2019

Plassmeier L, VIS, 2021 – Ku E, Am J Transp, 2021 – Zusmanovich M, J of Arth, 2018

ASMBS/IFSO 2022 guidelines -

AIM

- To propose the LSG as a **safe way** to provide rapid weight loss, for morbidly obese patients with **concomitant malignancy**
- To:
 - Decrease the complication rate of the definitive oncologic procedure
 - Facilitate adequate surgical resection (R0)

Bridging prior to Oncologic Surgery

Materials and Methods

- Retrospective review (multi-institutional)
 - Feb 2008 – Aug 2023
 - 5 patients (2F / 3M)

- Studied variables:
 - Age, Sex, Initial BMI, Co-morbidities
 - Type of malignancy
 - **Time** between LSG and definitive Oncologic intervention
 - **%EWL** and BMI at time of Oncologic intervention
 - **Complications**

Results: Initial Data

	Case 1	Case 2	Case 3	Case 4	Case 5
Gender	Female	Male	Female	Male	Male
Age	45	61	59	54	32
Pre-operative BMI (Kg/m ²)	37	54.6	56.5	43.8	45
Comorbidities	DI	HTN, DM2, OSA	Hypothyroidism, OSA	None	DM2, Lynch syndrome
Type of cancer	Renal cell carcinoma	Prostate	Peri-ampullary NET	Prostate	Colorectal adenocarcinoma
Year of LSG	2013	2019	2018	2008	2023
Complications	None	None	DVT 2 months after LSG	PMVT 10 days after LSG	None

Results: F/up / Oncologic Procedure

	Case 1	Case 2	Case 3	Case 4	Case 5
Weight loss before oncologic treatment (Kg)	24	62	6	50	23
%EWL before definitive treatment	55.8	55.9	6.9	73.5	33.8
BMI before definitive treatment (Kg/m ²)	27.8	36.9	54	28.7	37.6
Time between LSG and definitive treatment	4 months	24 months	3 months	4.5 months	6 months
Definitive treatment	Right partial nephrectomy	Open prostatectomy	Whipple	Radiotherapy	Proctectomy + ileo-anal anastomosis
Complications after oncologic surgery	30-Day Morbidity & Mortality 0%				

Discussion: OBESITY And CANCER

Relative risks associated with overweight and obesity and the percentage of cases attributable to overweight and obesity in the United States

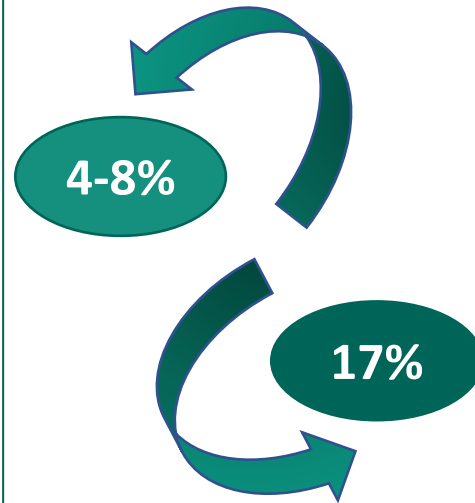
Type of cancer	Relative risk ^a		PAF% for U.S. adults in the year 2000 ^b
	BMI ≥ 25 to < 30	BMI 30+	
Colorectal (men)	1.5	3.0	35.4
Colorectal (women)	1.2	1.5	20.8
Female breast (post)	1.3	1.5	22.6
Endometrium	2.0	3.5	56.8
Kidney (renal cell)	1.5	2.5	42.5
Esophagus (adeno)	2.0	3.0	52.4
Pancreas	?	1.7	— ^c
Liver	?	1.5–4.0	— ^c
Gallbladder	1.5	2.0	35.5
Gastric cardia (adeno)	1.5	2.0	35.5

Adams et al, Cancer and Obesity: Effect of bariatric surgery – World J Surg 2009

OBESITY and CANCER

OBESITY

- 2nd leading cause of preventable death
- At least 2.8 million death per year
- In 2016:
 - 1.9B overweight
 - 650M obese



CANCER

- 2nd leading cause of death globally
- Responsible for about 10 million deaths per year
 - Globally, about 1 in 6 deaths is due to cancer
- In 2020:
 - 19.3M new cases per year

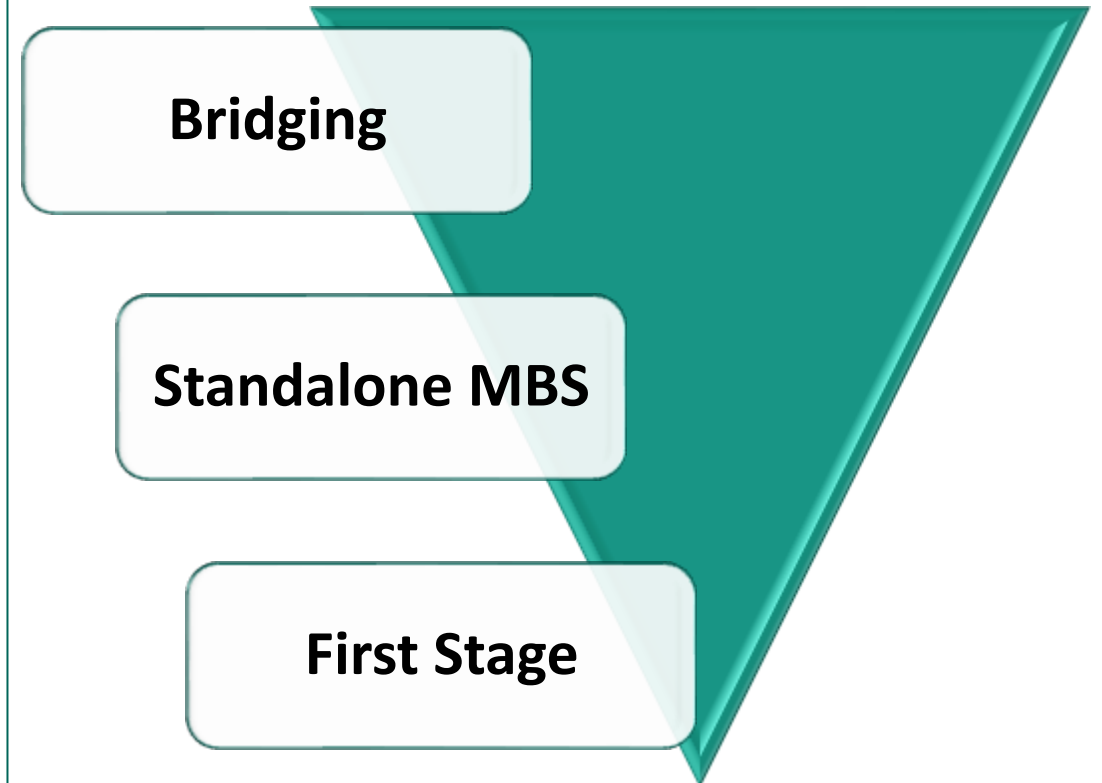
WHO, Obesity Facts, 2016 - WHO, Cancer Facts. 2020
Gallagher EJ, Cancer and Metastasis Reviews, 2022
Pati S, Cancer, 2023

Negative Impact on Perioperative Outcomes

- Limited exposure to the operation field
- More blood loss
- Prolonged operative time
- Impaired wound healing
- Increased risk of SSO
- Increased risk of **thromboembolic events**
- **May be:**
 - Difficulty achieving R0 resection?
 - Higher risk of conversion?

Sleeve as Bridging Procedure

- **BRIDGING** prior to specific, well selected oncologic procedures:
 - Slow growing tumors
 - Solid tumors
- **FIRST STEP**
- **STEP APPROACH**
- **NEOADJUVANT**



Ideal Timing for the Final Oncologic Surgery

- Time between LSG and Oncologic Surgery
 - Depends on response to LSG: weight loss, complications
 - Type of the tumor and its progression
- Our series:
 - **Mean Time: 4,4 months** (Case 2 excluded),
 - **Average %EWL = 54,8**
 - **Rosenthal: 3 months (27 Kg)** / Rosenthal: 6 months
 - Transplant: 12 months (Mean: 16,6 months)
 - Pregnancy: 12 months

Hidalgo J, Obes Surg, 2012 - Gianos M, Obes Surg, 2013 – [Rosenthal R]

Lin M, SOARD, 2013

THE JOURNEY from Bariatric to Metabolic to Oncologic



XXVI IFSO WORLD CONGRESS

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07:01

Bariatric, Metabolic and Oncologic Surgery



2014 study observed a 200% increased risk of cancer among adults with overweight and elevated blood glucose, compared with a 50% increased risk among adults with overweight and normal glucose.

Moore LL, Chadid S, Singer MR, Kreger BE, Denis GV. Metabolic health reduces risk of obesity-related cancer in Framingham study adults. *Cancer Epidemiol Biomarkers Prev* 2014;23:2057-2065.



Chair: R. Rosenthal (USA) - Moderators: C. Parmar (UK) - M. Muto (Italy)

TAKE HOME MESSAGE

- LSG is safe as a FIRST STEP / BRIDGING, for cancer patients requiring oncologic procedure
- Careful selection:
 - Slowly progressing tumors
 - Ideally early stage
- Careful follow up:
 - To avoid disease progression
 - To prevent complications / Thromboembolic events!!!
- Multidisciplinary assessment is mandatory
- More studies are needed to determine the optimal time to intervene

Conclusion

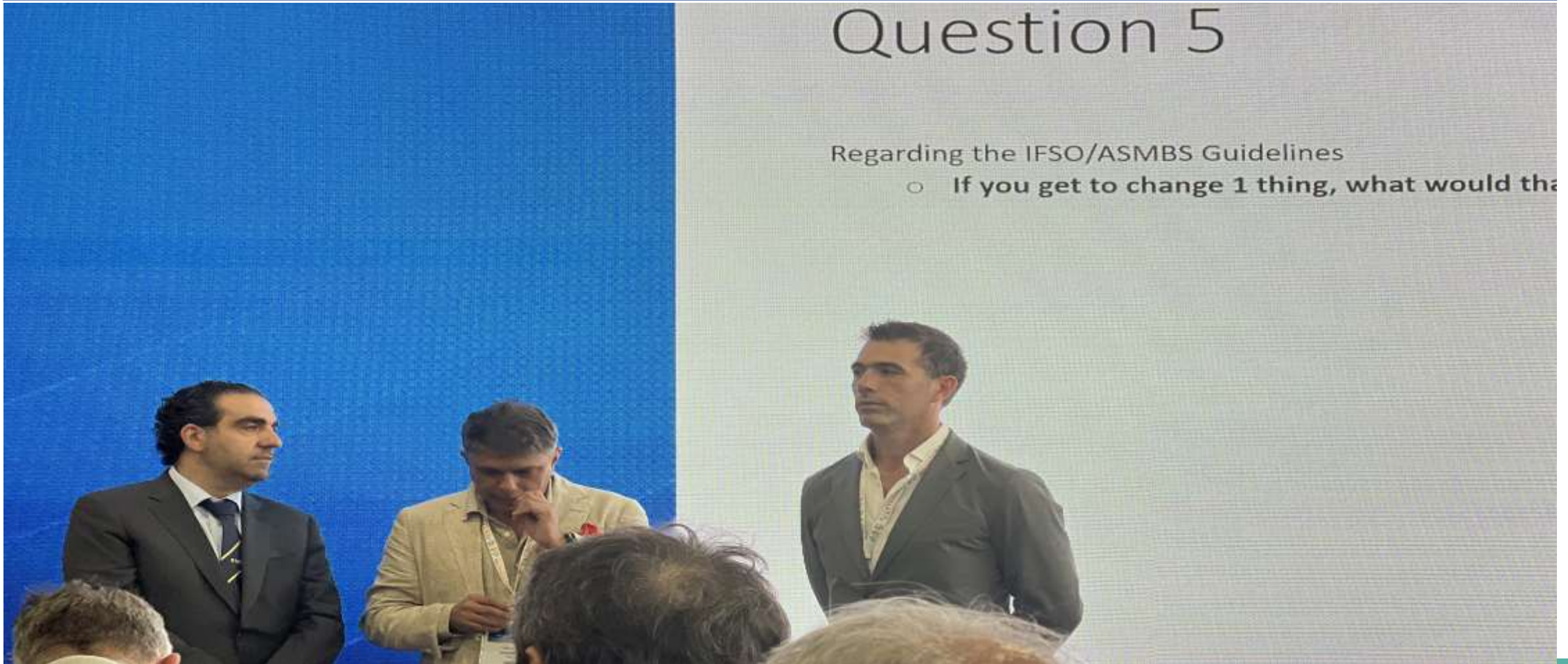


IFSO CHAPTERS CHAMPIONSHIP

Question 5

Regarding the IFSO/ASMBS Guidelines

- If you get to change 1 thing, what would that be?



Thank You
