Critical Management Aspects of Bariatric Surgery in Transplant Patients

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Disclosures

Medtronic
Engineering the extraordinary

Educational Grant
Speaker Fees

ETHICON
Shaping the future of surgery

Educational Grant

OLYMPUS

Educational Grant
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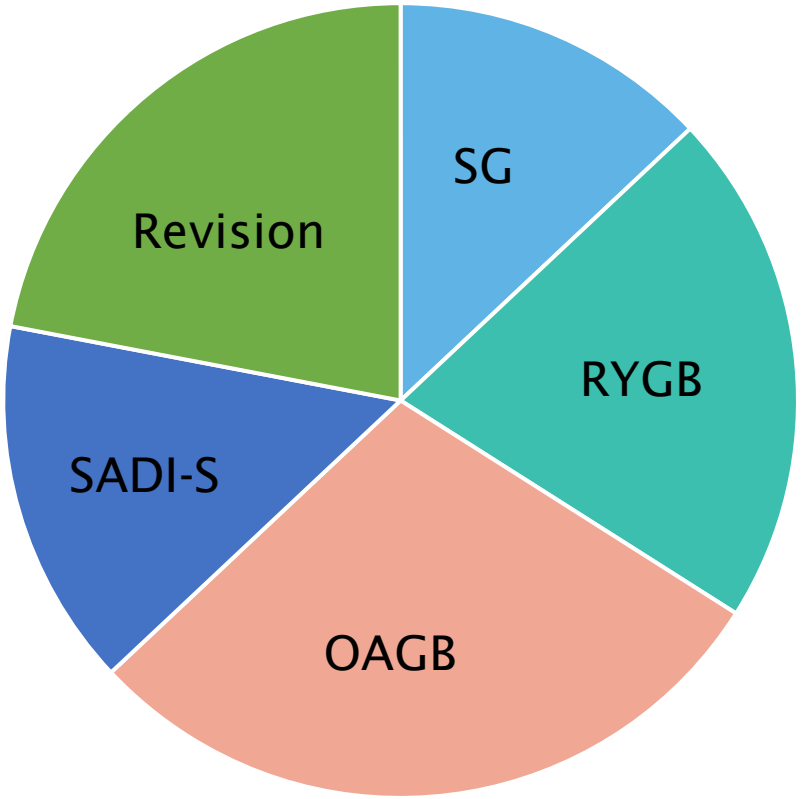
Case Mix



LAGB	0%
SG	13%
RYGB	21%
OAGB	29%
SADI-S	15%
Revision	22%

MBS can serve as a bridge to Tx:

Morbid obesity = relative contraindication for transplantation

e.g.: The International Society of Heart and Lung Transplantation has recommended that severely obese patients achieve a **BMI <30 kg/m2 before listing for cardiac transplantation**

Obesity, transplantation, and bariatric surgery: An evolving solution for a growing epidemic

Tayyab S. Diwan[1] | Tiffany C. Lee[1] | Shunji Nagai[2] | Enrico Benedetti[3] | Andrew Posselt[4] | Ginny Bumgardner[5] | Sabrena Noria[5] | Bryan A. Whitson[5] | Lloyd Ratner[6] | David Mason[7] | Jon Friedman[8] | Kenneth J. Woodside[9] | Julie Heimbach[10]

- Obesity: Significant **challenges in access to transplant**

- Negative impacts on outcomes after solid organ transplant

Am J Transplant. 2020;20:2143–2155

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Addressing obesity in select patients with **bariatric surgery**

before transplant may

improve access,

facilitate an easier operation,

as well as improve benefits of transplant.

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Bariatric surgery **after** transplant may also help to enhance the benefits from transplant under certain situations.

e.g. kidney function, heart LVEF

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MINIREVIEWS

Bariatric surgery outcomes following organ transplantation: A review study

Milad Kheirvari, Hamidreza Gou

Outcomes of Bariatric Surgery Before, During, and After Solid Organ Transplantation

Rocio Castillo-Larios[1] · Naga Swati Gunturu[1] · Enrique F. Elli[1]

SG>RYGB

Higher morbidity in Tx patients, NO INCREASED mortality

Significant weight loss and improvement of related conditions

Absence of serious graft rejection or dysfunction

Obesity Surgery (2022) 32:3821–3829

WJEM https://www.wjgnet.com 93 September 20, 2022 Volume 12 Issue 5

Critical Management Aspect in Tx Candidates:

Kidney – Liver – Heart – Lung

1. Obesity as a barrier to be listed
Weight Loss – patients can be listed

2. Goal: Improvement of Organ function (heart, kidney, lung)

3. To facilitate the Transplantation

→Tight Cooperation with Tx-Unit
(Cave: Decompensation!)

Critical Management Aspect in post Tx Patients:

Kidney – Liver – Heart – Lung

1. **Post Tx Obesity** leads to dysfunction of transplanted organ and **increased mortality**

Goal: Improvement/Preservation of Organ function (heart, kidney, lung) → survival

Sleeve Gastrectomy most commonly performed

→Tight Cooperation with Tx-Unit
(Cave: Immunosuppression →SG/Bypass/hypoabsorptive)

Critical Management Aspect in Tx Candidates&Patients:

MBS should only be done in centers (high risk patients)

Post Tx: Monitor organ function and immunosuppression levels!

MBS: increased morbidity, no increased mortality

Future: Role of new AOM need to be defined…

IFSO
European Chapter

See you in Vienna

SAVE THE DATE

www.ifso-ec2024.com

IFSO XXVII WORLD CONGRESS 2024

MELBOURNE, AUSTRALIA

IFSO

International Federation for the Surgery of Obesity and Metabolic Disorders

Don't Miss It!

Save the date: 3-7 September 2024

Melbourne Convention and Exhibition Centre (MCEC)

BRIEF COMMUNICATION

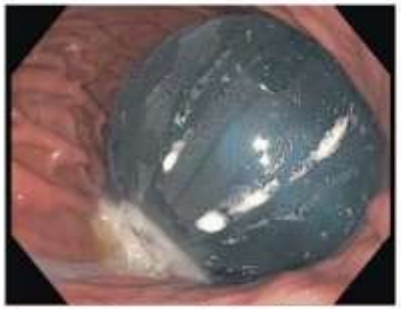
Successful Use of Intragastric Balloon Therapy as a Bridge to Heart Transplantation

Neej J. Patel[1] · Victoria Gómez[2] · D. Eric Steidley[3] · Lori Roust[4] · Juan Carlos Leoni Moreno[5] · Neena S. Abraham[1] · Rahul Pannala[1]

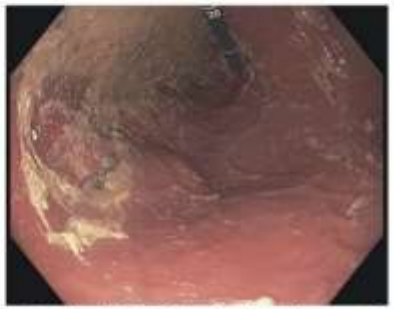
2 patients,

class II obesity and end-stage CHF requiring left ventricular assist devices (LVAD)

→ Sucessful HTX



IGB Placement in Gastric Body



Gastric Body & Fundus Post Removal

Obesity Surgery (2020) 30:3610–3614

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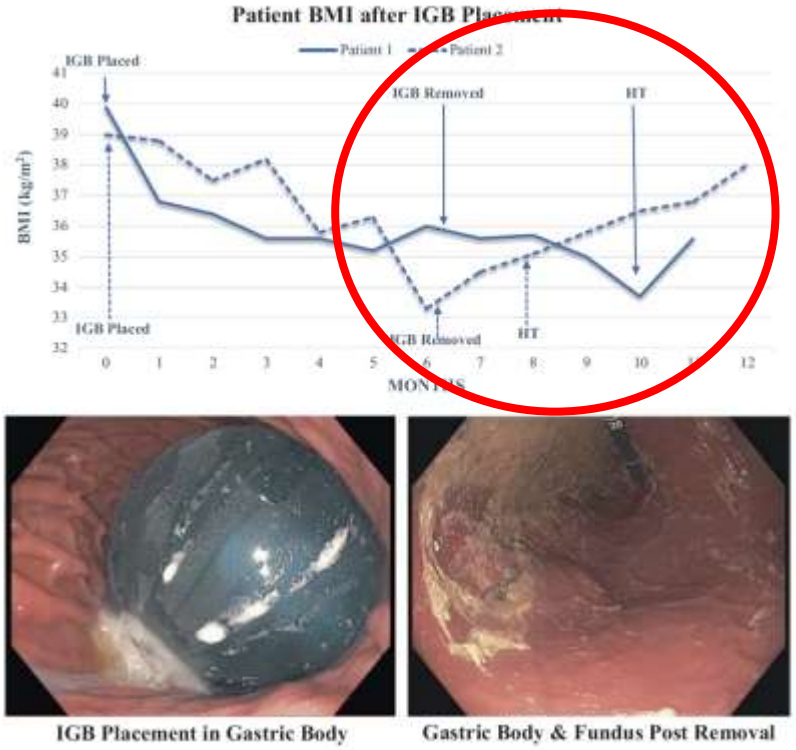

Obesity Surgery (2020) 30:3610–3614

ORIGINAL CONTRIBUTIONS

Bariatric Surgery Outcomes in Patients with Prior Solid Organ Transplantation: an MBSAQIP Analysis

Alexander M. Fagenson[1] · Michael M. Mazzei[1] · Huaqing Zhao[2] · Xiaoning Lu[2] · Michael A. Edwards[3]

336 transplant patients were compared with 157,413 patients without transplant

Longer operative time
Increased length of stay
More leaks

Prior Tx: →Higher Morbidity, same mortality

Obesity Surgery (2020) 30:2313–2324

Bariatric Surgery as a Bridge to Heart Transplantation in Morbidly Obese Patients

A Systematic Review and Meta-Analysis

Yung Lee, MD, Sama Anvari, MD,† Melissa Sam Soon, BHSc,* Chenchen Tian, BHSc,* Jorge A. Wong, MD, MPH,‡ Dennis Hong, MD, MSc,* Mehran Anvari, MBBS, PhD,* and Aristithes G. Doumouras, MD, MPH**

11 studies with 98 patients
BMI preop 44.9 kg/m^2 → 33.2 kg/m^2

Time MBS →HTX: 14 months

71% of patients listed for transplantation
57% of listed patients underwent HTX

Mortality of MBS 0%, morbidity 28%

Cardiology in Review 2022;30: 1–7

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MBS is **effective** and **safe** in patients with ESHF, and may be used to achieve sufficient weight loss to facilitate cardiac transplant eligibility and transplantation

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MBS and Heart transplantation I:

- MBS enables/broadens access to HTX
- MBS in patients with low LVEF/LVAD should be done only in centers with high experience AND a cardiac surgical dept.
- Highest perioperative risk: bleeding (fully anticoagulated under LVAD)
- **MBS improves organ function AFTER transplantation**

MBS and Heart transplantation II:

- Future: closer collaboration between bariatric and cardiac surgeons
- Weight loss **before** Tx by MBS (SG, IGB, ESG?) or AOM
- MBS AFTER successful HTX in case of (recurrent) weight gain
- Fighting Obesity in the context of solid organ TX

One problem – several ways out

Thank you

Research group Bariatric and Metabolic Surgery

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Jakob Eichelter

Paula Richwien

Larissa Nixdorf

Ivan Kristo

Philipp Beckerhinn

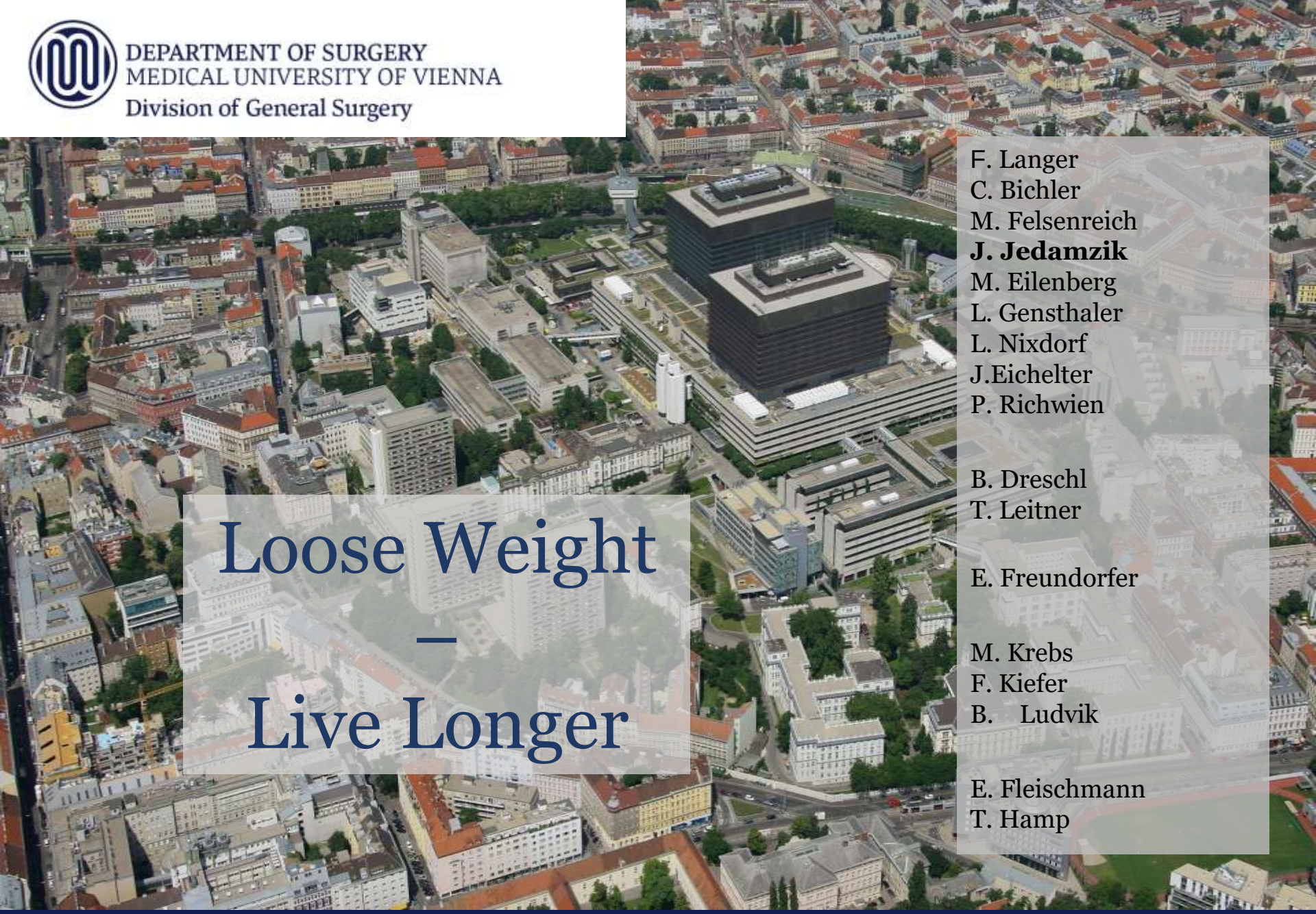
Christoph Sperker

Evi Artemiou

Natalie Vock

Save the date
Melbourne and Vienna

DEPARTMENT OF SURGERY
MEDICAL UNIVERSITY OF VIENNA
Division of General Surgery



Loose Weight
–
Live Longer

F. Langer
C. Bichler
M. Felsenreich
J. Jedamzik
M. Eilenberg
L. Gensthaler
L. Nixdorf
J.Eichelter
P. Richwien

B. Dreschl
T. Leitner

E. Freundorfer

M. Krebs
F. Kiefer
B. Ludvik

E. Fleischmann
T. Hamp

Sleeve gastrectomy - Leaks

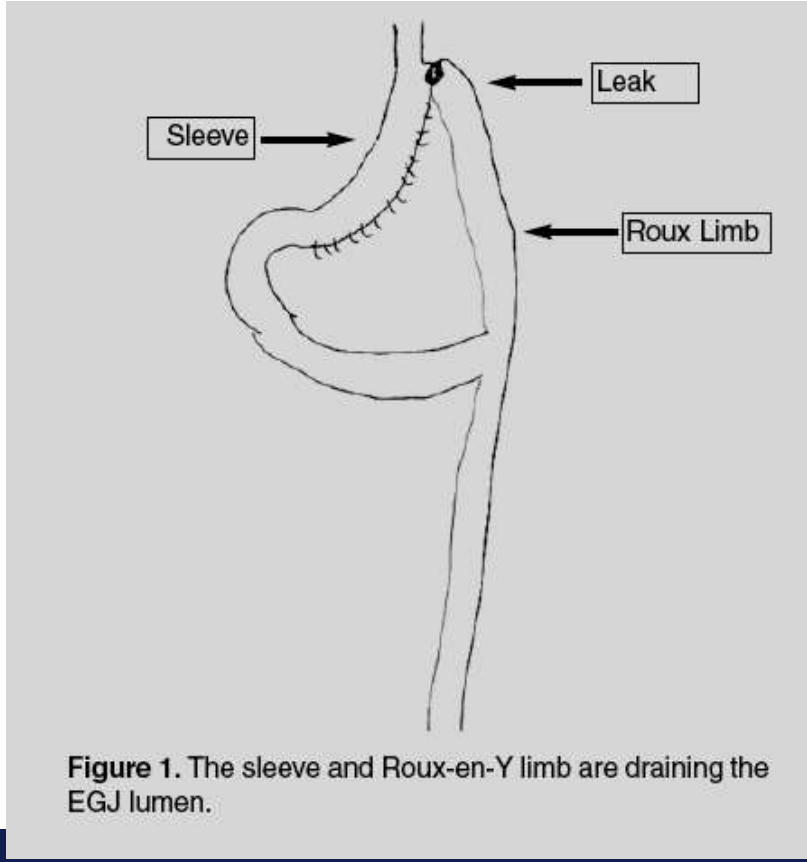


Figure 1. The sleeve and Roux-en-Y limb are draining the EGJ lumen.

Baltasar, Obes Surg 2007