

SURGICAL OUTCOMES IN DIABETIC PATIENTS UNDERGOING OAGB: A HISTORICAL COHORT STUDY.

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SOROKA
Medical Center
feeling secure



DISCLOSURES



Presentation in a glance:

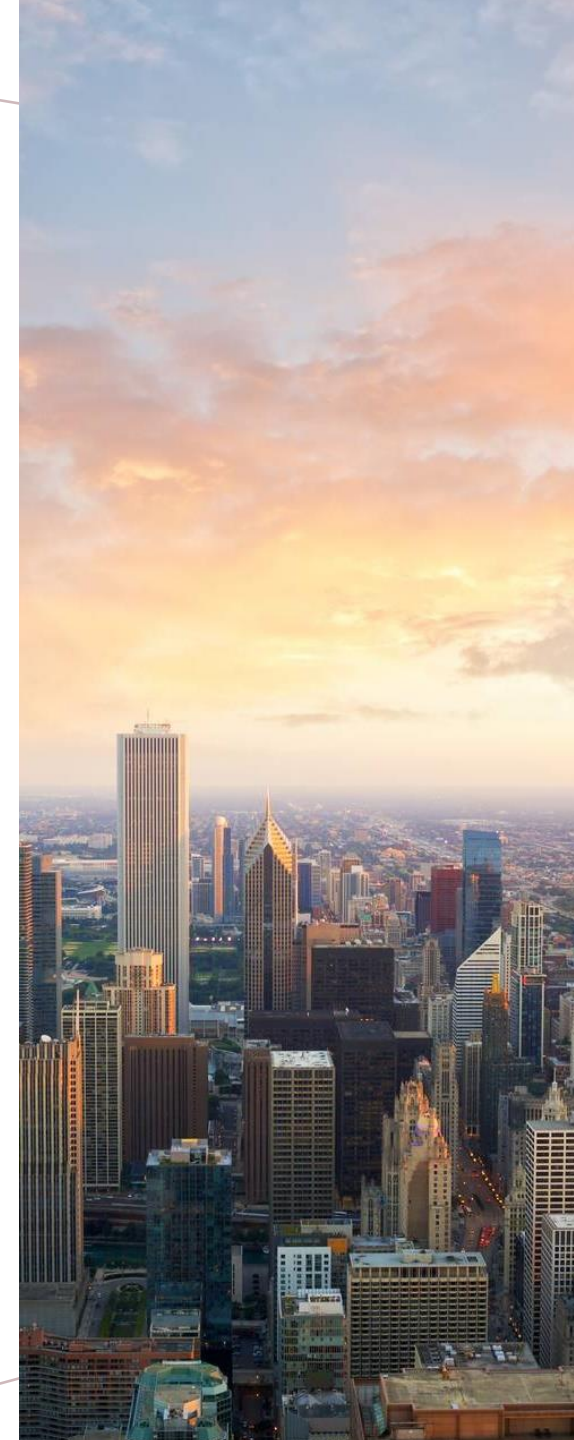
Introduction – a bit about where are we situated

Gap of knowledge

Methods




Results

Discussion & Conclusions



479

People also search for

-  Royal Victoria Hospital
517
-  Montreal Sacred Heart Hospital
554
-  Hôpital Charles-Le Moyné
571



The Mayo Clinic Hospital – Rochester, Saint Marys Campus has **1,265 licensed beds** and **64 operating rooms**.











Tertiary hospital,
Level-1
Trauma center

~5,300
employees

1,173
beds

Affiliated with
Ben-Gurion
University



Area:
286 dunam

30
buildings

Built area:
205,000 sq.mr.

999

People also search for

-  Brigham and Women's Hospital
793
-  Mass. Eye and Ear, Main Campus
41
-  Boston Medical Center
514



We are here for them...

Multi-cultural population

Over 1,400,000 residents

Low-Medium Socio-economic status

Average age 28

Growing population

Residents from all over the country choosing Soroka

400,000 Children

Referral center – Barzilai, Yoseftal

100,000 65+ year olds

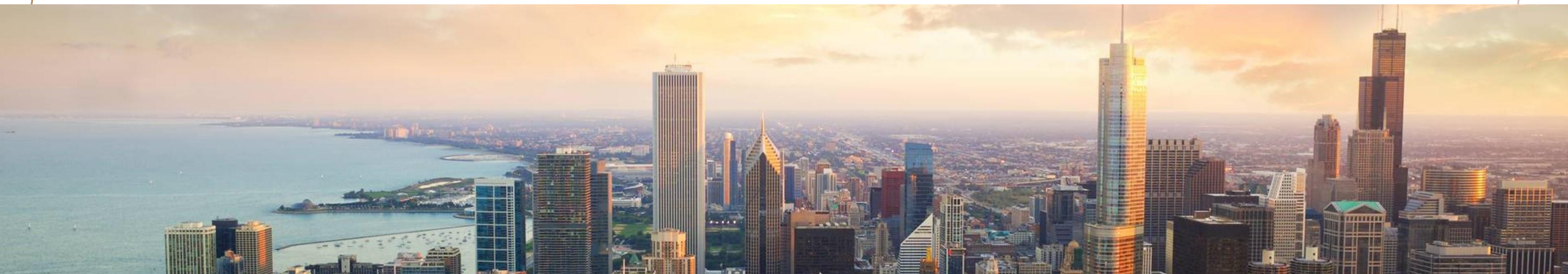
Military casualties

Tourists





*THE ISSUE OF DIABETES AND
BARIATRIC SURGERY*





diabetes bariatric surgery

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10,161 results Page 1 of 1,017

RESULTS BY YEAR

1574 Diabetes Care Volume 45, July 2022



SPECIALTIES TOPICS MULTIMEDIA CURRENT ISSUE LEARNING/CME AUTHOR CENTER PUBLICATIONS

ORIGINAL ARTICLE



Diabetes Remission in the Alliance of Randomized Trials of Medicine Versus Metabolic Surgery in Type 2 Diabetes (ARMMS-T2D)

John P. Kirwan,^{1,2} Anita P. Courcoulas,³ David E. Cummings,^{4,5} Allison B. Goldfine,^{6,7} Sangeeta R. Kashyap,¹ Donald C. Simonson,^{7,8} David E. Arterburn,⁹ William F. Gourash,³ Ashley H. Vernon,^{7,8} John M. Jakicic,¹⁰ Mary Elizabeth Patti,^{6,7} Kathy Wolski,¹ and Philip R. Schauer^{1,2}

Weight and Metabolic Outcomes 12 Years after Gastric Bypass

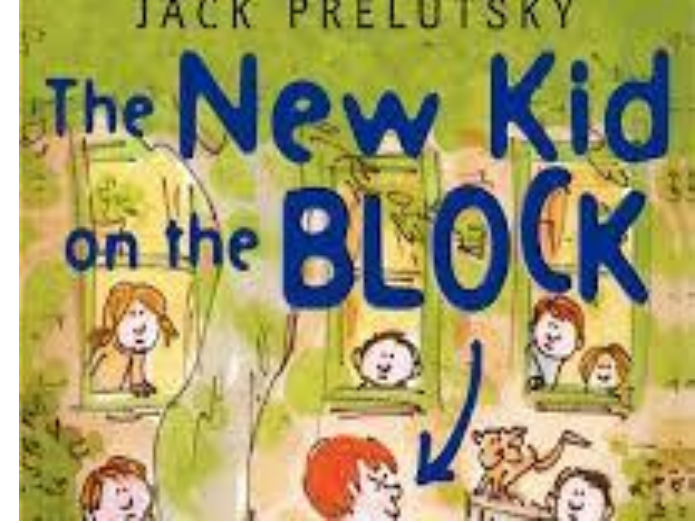
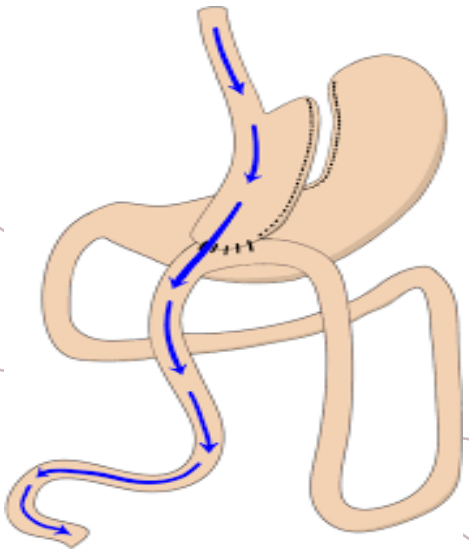
Authors: Ted D. Adams, Ph.D., M.P.H., Lance E. Davidson, Ph.D., Sheldon E. Litwin, M.D., Jaewhan Kim, Ph.D., Ronette L. Kolotkin, Ph.D., M. Nazeem Nanjee, Ph.D., Jonathan M. Gutierrez, B.S., and Steven C. Hunt, Ph.D. [Author Info & Affiliations](#)

Diabetes Care 2022;45:1574–1583 | <https://doi.org/10.2337/dc21-2441>

Published September 21, 2017 | N Engl J Med 2017;377:1143-1155 | DOI: 10.1056/NEJMoa1700459

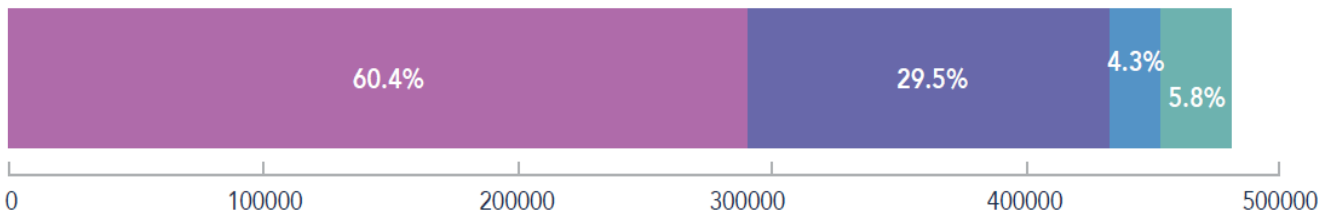
THE GAP IN KNOWLEDGE

- One Anastomosis Gastric Bypass (OAGB) is a relatively new bariatric surgical procedure; therefore, long-term outcomes are still being evaluated.
- Information regarding the issue of diabetics and OAGB is lacking. Quality of life, a crucial aspect in diabetic patients, has not been adequately addressed in the literature in patients who have undergone One Anastomosis Gastric Bypass (OAGB).





8TH GLOBAL REGISTRY REPORT



All procedure types (n=480,970).

*potential for 10,437 procedures to be represented twice due to possible overlaps with the datasets of USA and Michigan



ISMBS

Israeli Society for Metabolic & Bariatric Surgery
החברה הישראלית לכירורגיה מטבולית ובריאותית

משרד
הבריאות
לחיים בריאים יותר



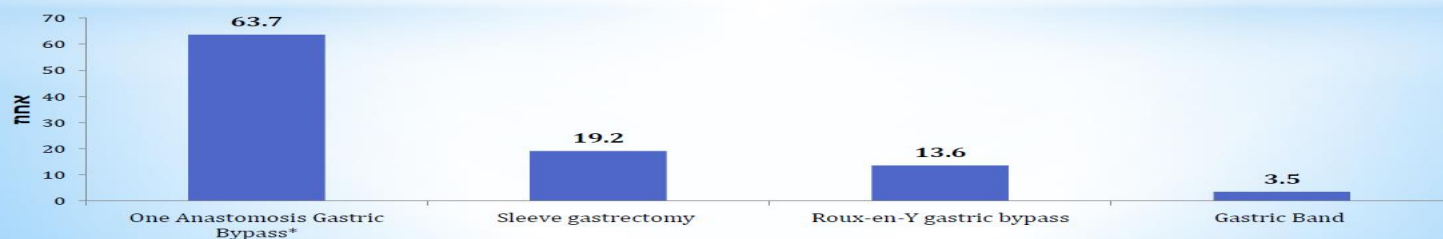
הרישום הלאומי לניתוחים בריאתריים

המרכז הלאומי לבקרת מחלות והחברה הישראלית
לכירורגיה מטבולית ובריאותית סיכום שנת 2020

סוגי הניתוחים שבוצעו בשנת 2020, כלל הניתוחים

%	מספר מנותחים	סוג ניתוח
3.5	255	Gastric Band (טבעת מתכוונת)
19.2	1,383	Sleeve gastrectomy (שרוול קיבה)
13.6	982	Roux-en-Y gastric bypass (מעקף קיבה בעל שתי השקות)
63.7	4,600	One Anastomosis Gastric Bypass* (מעקף קיבה בעל השקה אחת)
100	7,220	סה"כ מנותחים

One Anastomosis Duodenal switch כולל גם ניתוח One anastomosis gastric bypass* (16 ניתוחים). (Omega loop)



Randomized Controlled Trial

> Lancet Diabetes Endocrinol. 2024 Apr;12(4):267-276.

doi: 10.1016/S2213-8587(24)00035-4. Epub 2024 Mar 4.

Efficacy and safety of one anastomosis gastric bypass versus Roux-en-Y gastric bypass at 5 years (YOMEGA): a prospective, open-label, non-inferiority, randomised extension study

Maud Robert ¹, Tigran Poghosyan ², Delphine Maucort-Boulch ³, Alexandre Filippello ⁴, Robert Caiazzo ⁵, Adrien Sterkers ⁶, Lita Khamphommala ⁶, Fabian Reche ⁷, Vincent Malherbe ⁸, Adriana Torcivia ⁹, Toufic Saber ¹⁰, Dominique Delaunay ¹¹, Carole Langlois-Jacques ³, Augustin Suffisseau ², Sylvie Bin ¹², Emmanuel Disse ¹³, François Pattou ⁵

Multicenter Study

> Obes Surg. 2024 Jun;34(6):2111-2115. doi: 10.1007/s11695-024-07213-5.

Epub 2024 Apr 12.

Medium-Term Outcomes from a Series of 1000 One Anastomosis Gastric Bypass in Australia: A Case Series

Laura Hailstone ¹, David Tovmassian ^{2 3}, Chu Luan Nguyen ^{1 4}, Pearl Wong ¹, Philip Alexander Le Page ¹, David Martin ¹, Craig Taylor ¹

SO, WHAT IS MISSING?

> Obes Surg. 2024 Mar;34(3):940-946. doi: 10.1007/s11695-024-07067-x. Epub 2024 Feb 6.

Variation in HbA1c in Patients with Obesity and type 2 Diabetes Mellitus 12 months after Laparoscopic One-Anastomosis Gastric Bypass and Laparoscopic Roux-en-Y Gastric Bypass: a Retrospective Matched Cohort Study

Anne-Sophie van Rijswijk ¹, Abraham S Meijnikman ^{2 3}, Sarah Mikdad ⁴, Barbara A Hutten ⁵, Donald L van der Peet ⁶, Arnold W van de Laar ⁷, Victor E A Gerdes ^{2 3}, Maurits de Brauw ⁷



AIM

- The aim was to examine the mid-term diabetes-associated outcome of OAGB, including the effect on QOL.
- Second, the subjective evaluation of patients within subgroups was analyzed.



METHODS

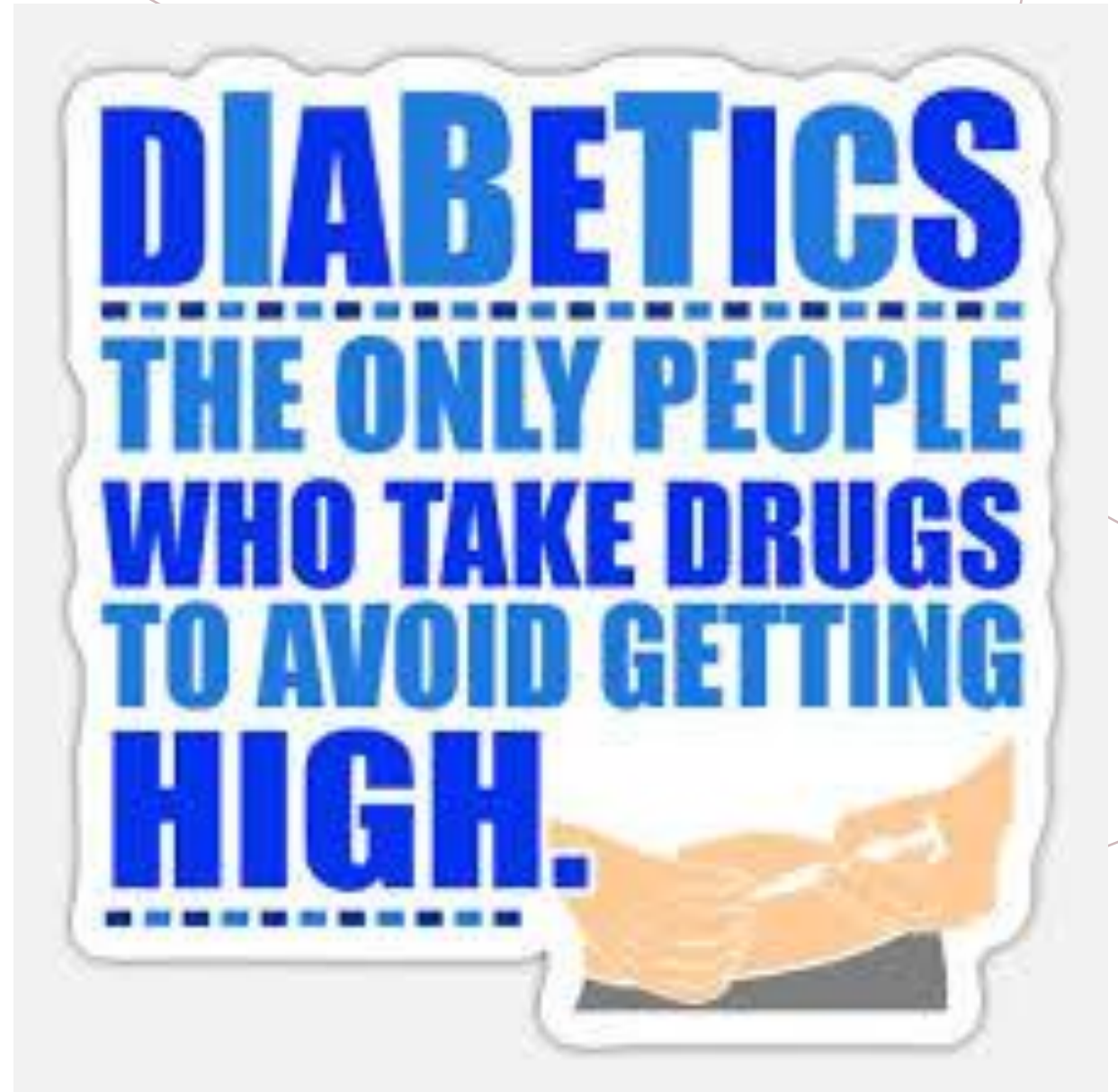
- All patients underwent OAGB surgery in our department from 2015 to 2023.
- They had known Diabetes prior to the operation, with a valid HbA1c score.
- The study encompassed patients between 18 and 65.
- All patients fulfilled the criteria for bariatric surgery (BMI \geq 40 kg/m², or a BMI \geq 35 kg/m² with obesity-related comorbidities) prior to their operation.
- Outcomes, including BMI reduction, the evolution of comorbidities, complications, reoperations, and QOL, were compared according to the Bariatric Analysis and Reporting Outcome System (BAROS).
- Quality of life (QOL) and weight data were received via telephone questionnaires using BAROS in a random sample of our patients.

- Statistical analysis: Univariate analysis was performed using independent T-test, Mann-Whitney, and Chi-Square.
- Multivariate analysis was performed, using binary regression analysis to study risk factors over time while considering independent variables, including age groups, co-morbidities, quality of life, etc.

research
methods

n : If I use enough math and big words, people will just assume I know what I'm talking about.

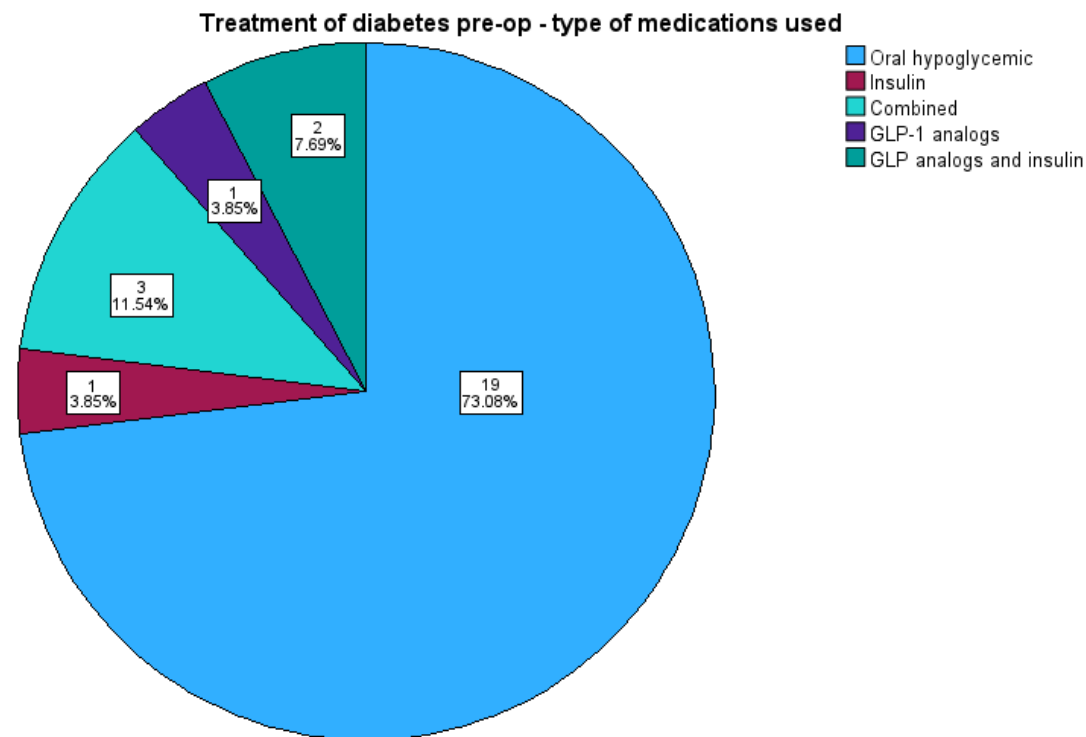
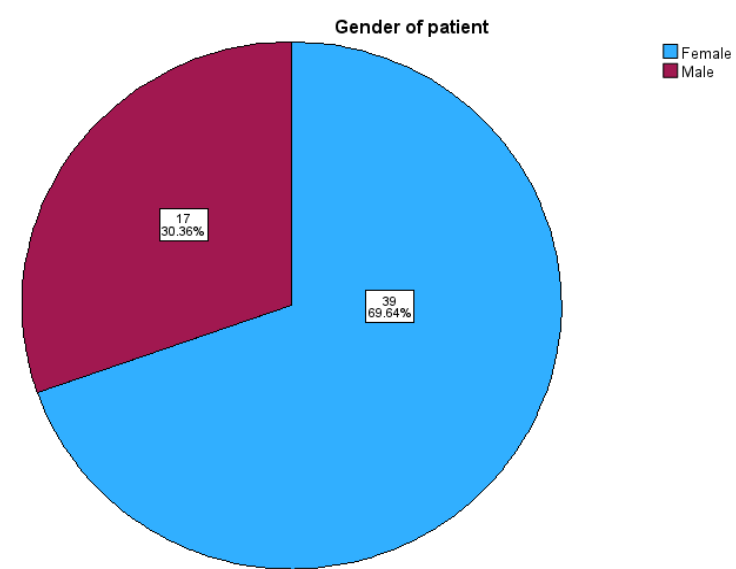
RESULTS





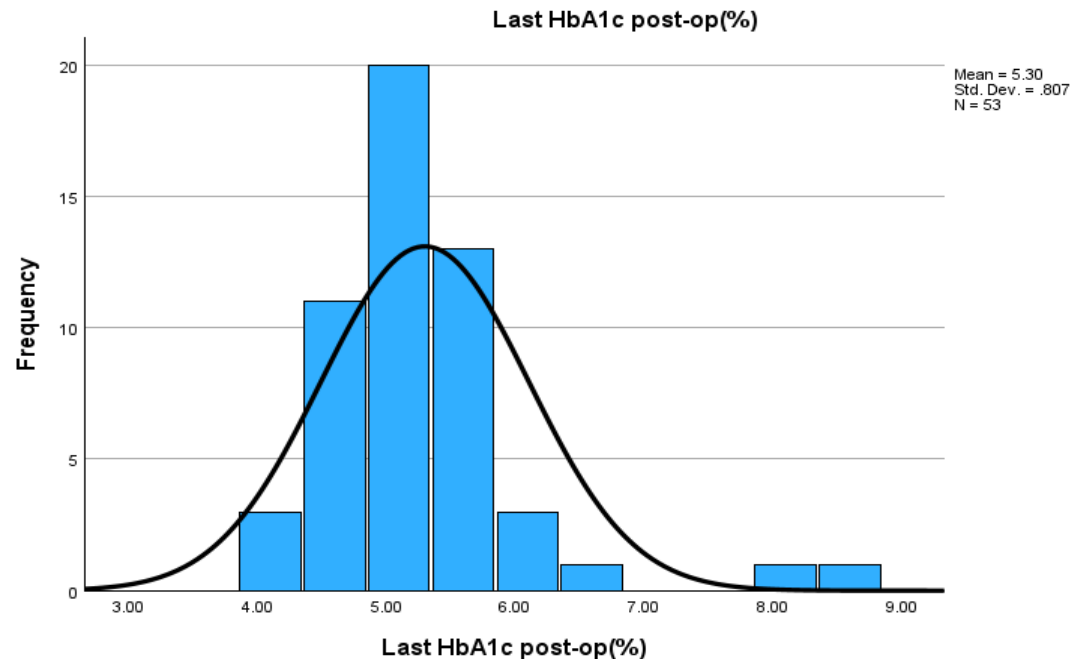
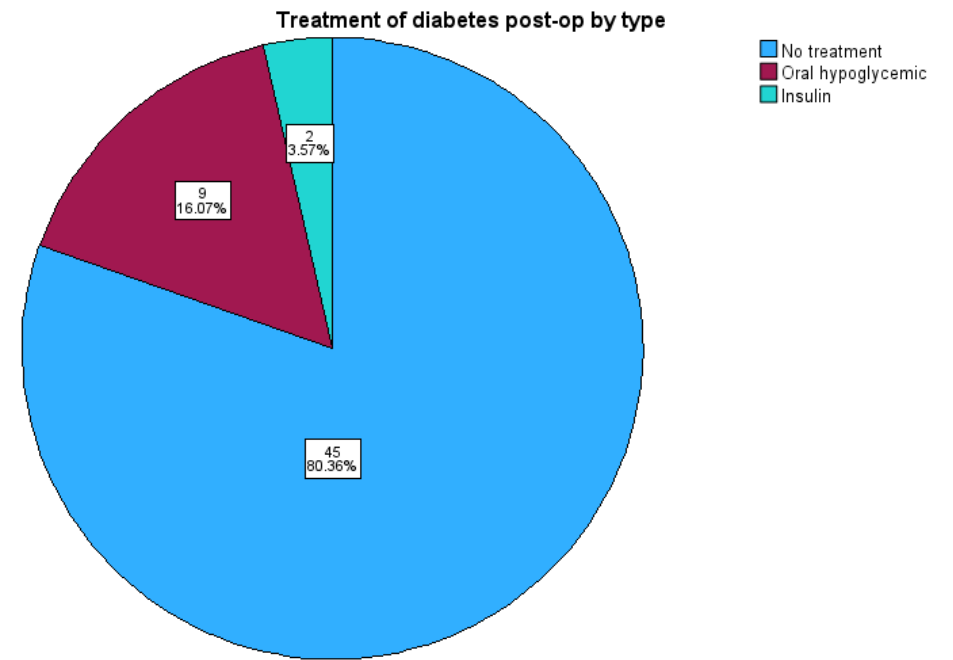
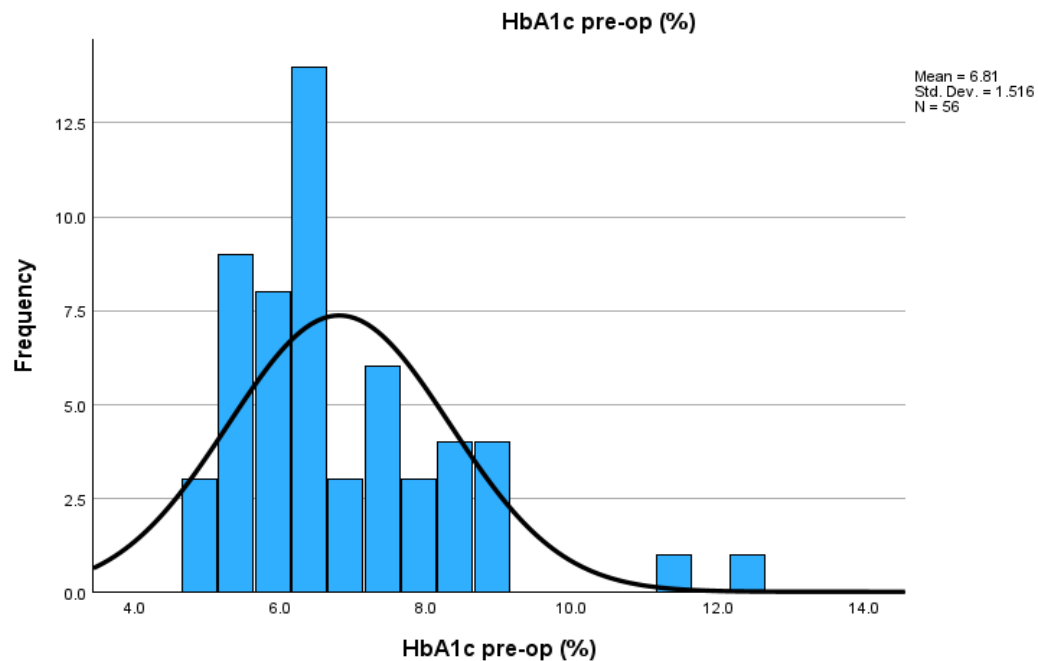
RESULTS

- Of 581 patients operated on during that period, 79 patients were diabetics.
- Of those, 56 were included in the final data analysis with both BAROS and ED-Q 5 questionnaires answered thoroughly.
- Of these, 17 (30.4%) were males.
- The mean age of our patients was 46.5 (± 13.1) at surgery.
- The mean pre-op BMI was 42.2 (± 7.2), and the mean post-op BMI was 28.5 (± 5.2), with a significant difference between these two ($p < 0.001$).



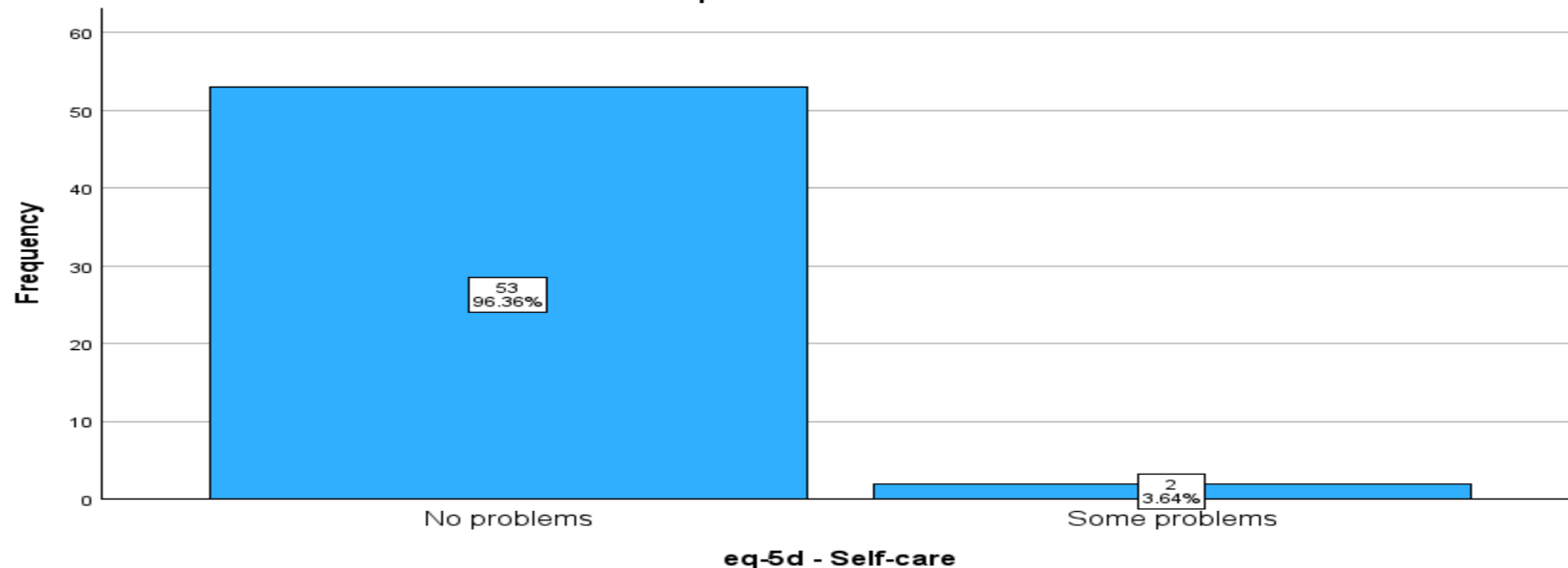
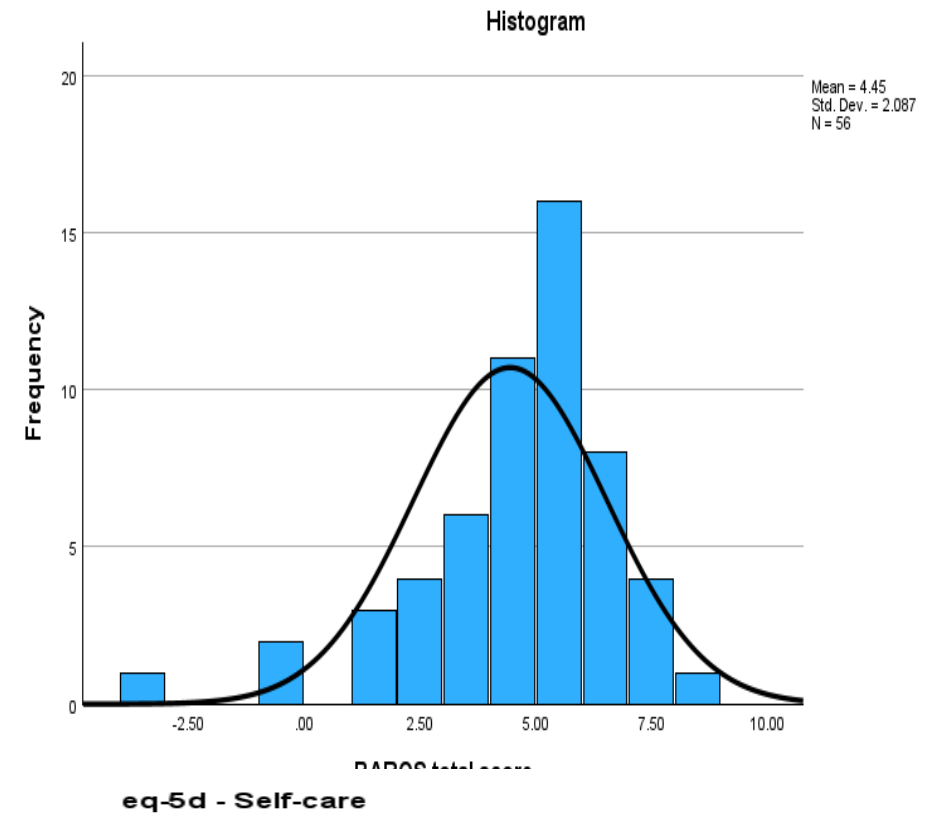
RESULTS – CON.

- The mean pre-op HbA1c was 6.81% (± 1.52), while the post-op HbA1c was now 5.3 (± 0.8), a difference that was also significant ($p < 0.001$).
- Basic demographics showed no significant post-surgery differences between males and females and no difference for basic demographics variables.



AND SUBJECTIVE MEASURES

- When considering subjective measures, a summary of the quality of life (BAROS) is 1.6 (± 1.3).
- The sum of complications in BAROS: -0.1 (± 0.3).
- The total BAROS score (including the above and medical improvement and excess weight loss metrics): 4.45 (± 2.1).



STUDY LIMITATIONS AND STRENGTH

LIMITATIONS

- An essential part of this research was based on questionnaires, which are inherently prone to bias.
- Another limitation is the sample size, which could be larger (even though power calculations have shown this sample to be large enough),
- A single-center study.
- Thus, we urge researchers to delve into this realm and aid us in a bigger sample size, with a multi-institutional study, with similar follow-up periods.

STRENGTH

- A use of a validated and reliable questionnaire to evaluate the subjective part of post-bariatric standing (BAROS & EQ-5d).
- Targeting only a single procedure (OAGB), which is still considered new and needs to be evaluated thoroughly.
- A retrospective cohort design less prone to biases than a case-control or a cross-sectional design.

DISCUSSION AND CONCLUSIONS

- ✓ OAGB surgery results in good outcomes for diabetic patients as measured by the BAROS, reduction in BMI, and change in HbA1c.
- ✓ We found no gender differences in these results.
- ✓ We believe OAGB could be a good solution for patients suffering from obesity and its' severe comorbidity – diabetes.
- ✓ These outcomes should be considered in optimizing patient selection and preoperative diabetic patient counseling.

con•clu•sion
[kuh n-kloo-zuh n], n

1. the place where you got tired of thinking.

Conclusions:

- **OAGB is a safe and feasible procedure with good mid-term weight loss that can alleviate DM in selected patients**

SELECTED BIBLIOGRAPHY

1: van Rijswijk AS, Meijnikman AS, Mikdad S, Hutten BA, van der Peet DL, van de Laar AW, Gerdes VEA, de Brauw M. Variation in HbA1c in Patients with Obesity and type 2 Diabetes Mellitus 12 months after Laparoscopic One-Anastomosis Gastric Bypass and Laparoscopic Roux-en-Y Gastric Bypass: a Retrospective Matched Cohort Study. *Obes Surg.* 2024 Mar;34(3):940-946. doi: 10.1007/s11695-024-07067-x.

2: Han L, Chen X, Wan D, Xie M, Ouyang S. One anastomosis gastric bypass ameliorates diabetic nephropathy via regulating the GLP-1-mediated Sirt1/AMPK/PGC1 α pathway. *Clin Exp Nephrol.* 2024 May 23. doi:10.1007/s10157-024-02516-4. Epub ahead of print. PMID: 38782822.

3: Hailstone L, Tovmassian D, Nguyen CL, Wong P, Le Page PA, Martin D, Taylor C. Medium-Term Outcomes from a Series of 1000 One Anastomosis Gastric Bypass in Australia: A Case Series. *Obes Surg.* 2024 Jun;34(6):2111-2115. doi: 10.1007/s11695-024-07213-5. Epub 2024 Apr 12. PMID: 38609707; PMCID: PMC11127843.

4: Quint E, Perry ZH, Elkrinawi N, Kukeev I, Czeiger D, Vakhrushev A, Sebbag G, Dukhno O. Banded One-Anastomosis Gastric Bypass (BOAGB) for Patients Living with Obesity and Extreme Obesity: A Single Institution's Experience. *Obes Surg.* 2024 May;34(5):1756-1763. doi: 10.1007/s11695-024-07194-5. Epub 2024 Apr 1. PMID: 38557949.

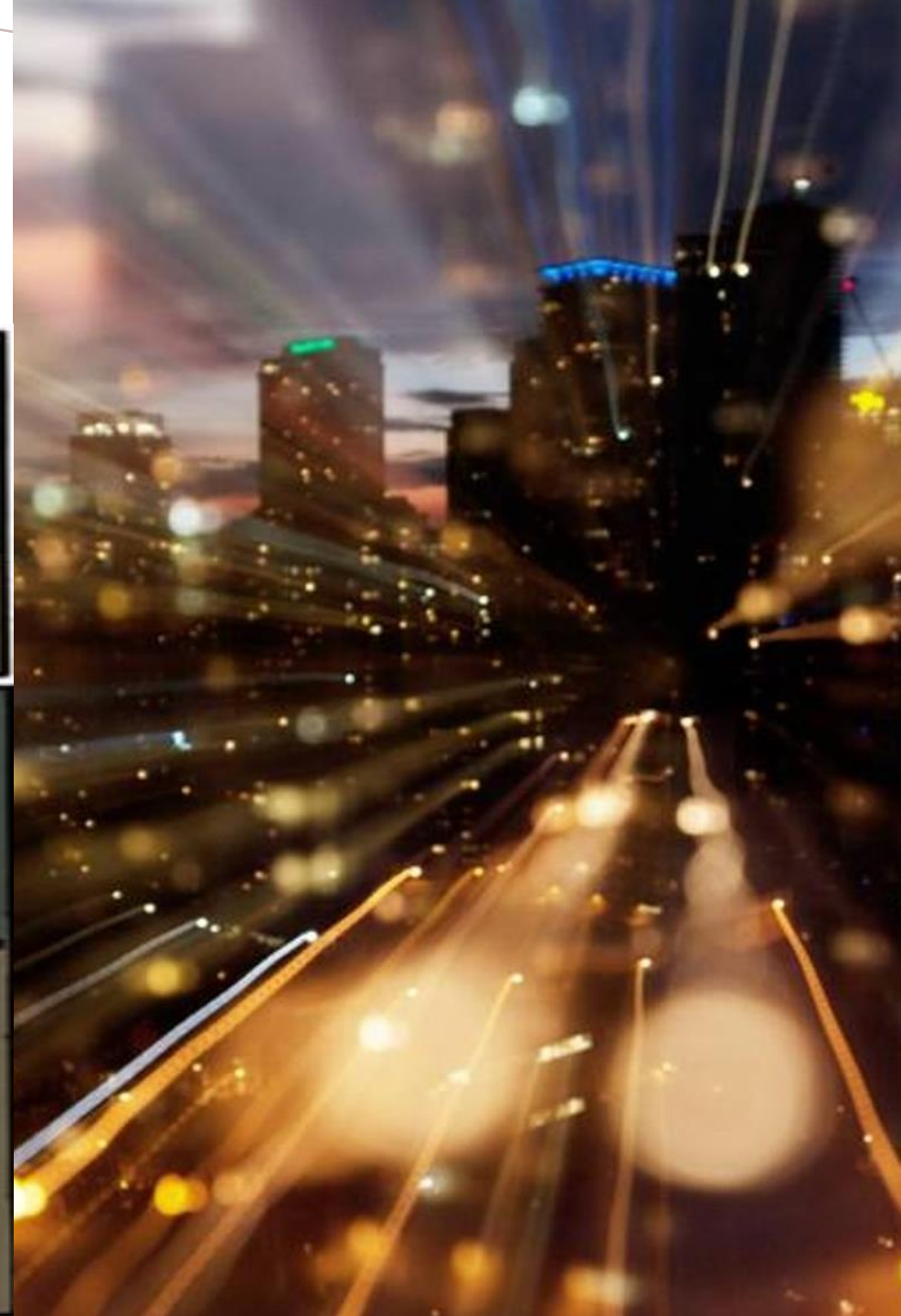
5: Robert M, Poghosyan T, Maucourt-Boulch D, Filippello A, Caiazzo R, Sterkers A, Khamphommala L, Reche F, Malherbe V, Torcivia A, Saber T, Delaunay D, Langlois-Jacques C, Suffisseau A, Bin S, Disse E, Pattou F. Efficacy and safety of one anastomosis gastric bypass versus Roux-en-Y gastric bypass at 5 years (YOMEGA): a prospective, open-label, non-inferiority, randomised extension study. *Lancet Diabetes Endocrinol.* 2024 Apr;12(4):267-276. doi: 10.1016/S2213-8587(24)00035-4. Epub 2024 Mar 4. PMID: 38452784.

6: Wilmington R, Abuawwad M, Holt G, Anderson R, Aldafas R, Awad S, Idris I. The Effects of Preoperative Glycaemic Control (HbA1c) on Bariatric and Metabolic Surgery Outcomes: Data from a Tertiary-Referral Bariatric Centre in the UK. *Obes Surg.* 2024 Mar;34(3):850-854. doi: 10.1007/s11695-023-06964-x. Epub 2024 Jan 15. PMID: 38221566; PMCID: PMC10899277.



"I would have done a bibliography, but my sources prefer to remain anonymous."

ANY QUESTIONS?



THANK YOU

And some contact info.

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