

Comparative Outcomes of One Anastomosis & Roux-en-Y Gastric Bypass:

Weight Loss and Diabetes Remission

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Introduction

Why compare these two bariatric procedures?

Metabolic bariatric surgery is a cornerstone intervention for severe obesity.

It improves obesity-related diseases, especially type 2 diabetes mellitus (T2DM).

Roux-en-Y gastric bypass (RYGB) is a well-established standard procedure.

One anastomosis gastric bypass (OAGB) has gained popularity because of technical simplicity.

Clinical focus: sustained weight loss + diabetes remission after 3 years.



Background

OAGB and RYGB in severe obesity & T2DM

Metabolic Bariatric Surgery

Targets both weight reduction and metabolic improvement.

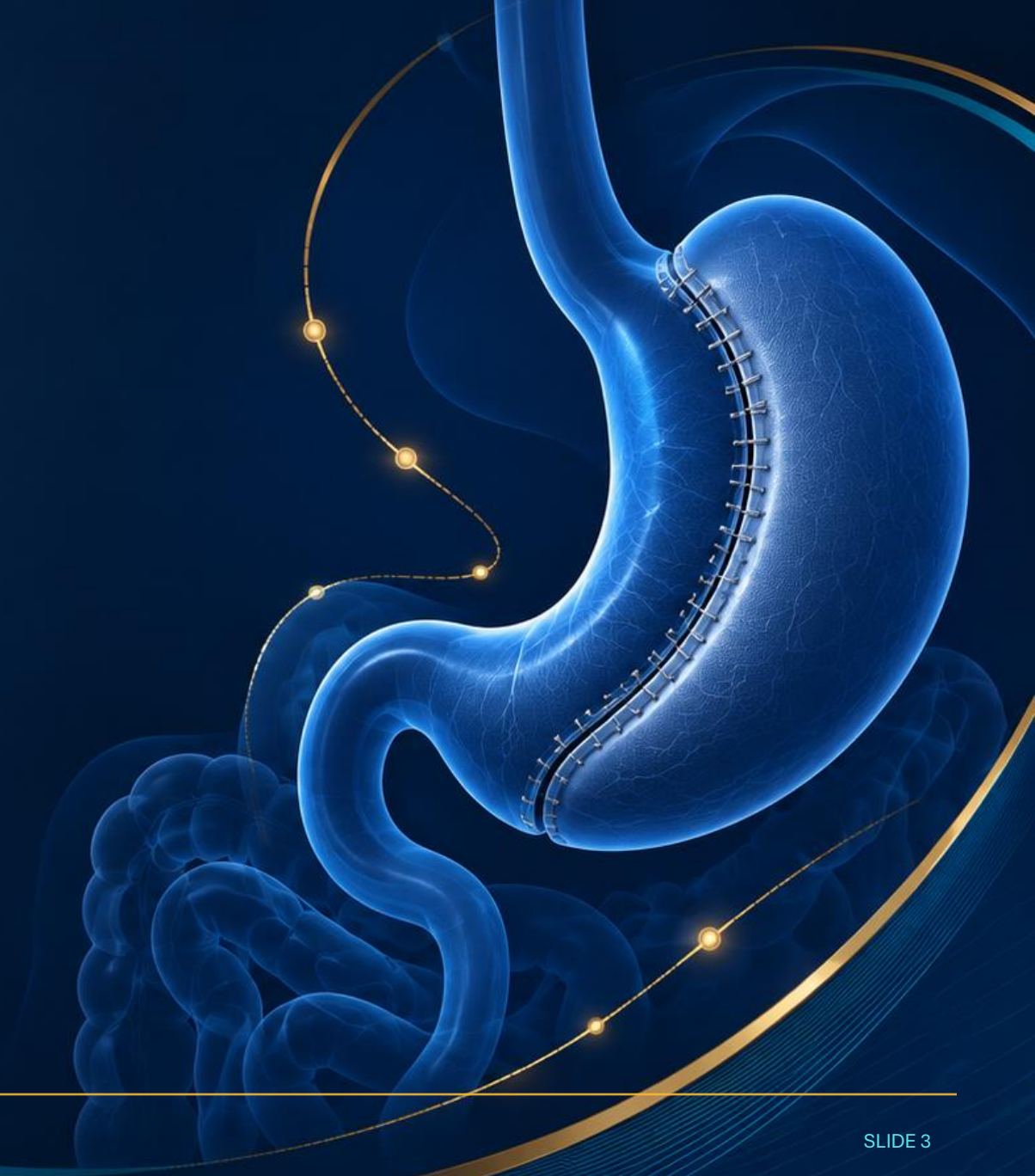
Provides durable benefit in selected patients with severe obesity.

Type 2 diabetes remission is a key metabolic endpoint.

Procedure Context

RYGB: established, widely accepted bypass procedure.

OAGB: simpler technique with increasing clinical use.



Problem Statement / Rationale

Why this study was needed

Evidence gap

Comparative long-term outcomes of MGB and RYGB require further evaluation, especially in the local clinical context.

Which procedure provides better sustained weight loss?

Which procedure gives higher T2DM remission?

Are safety outcomes and complications comparable?



Objectives

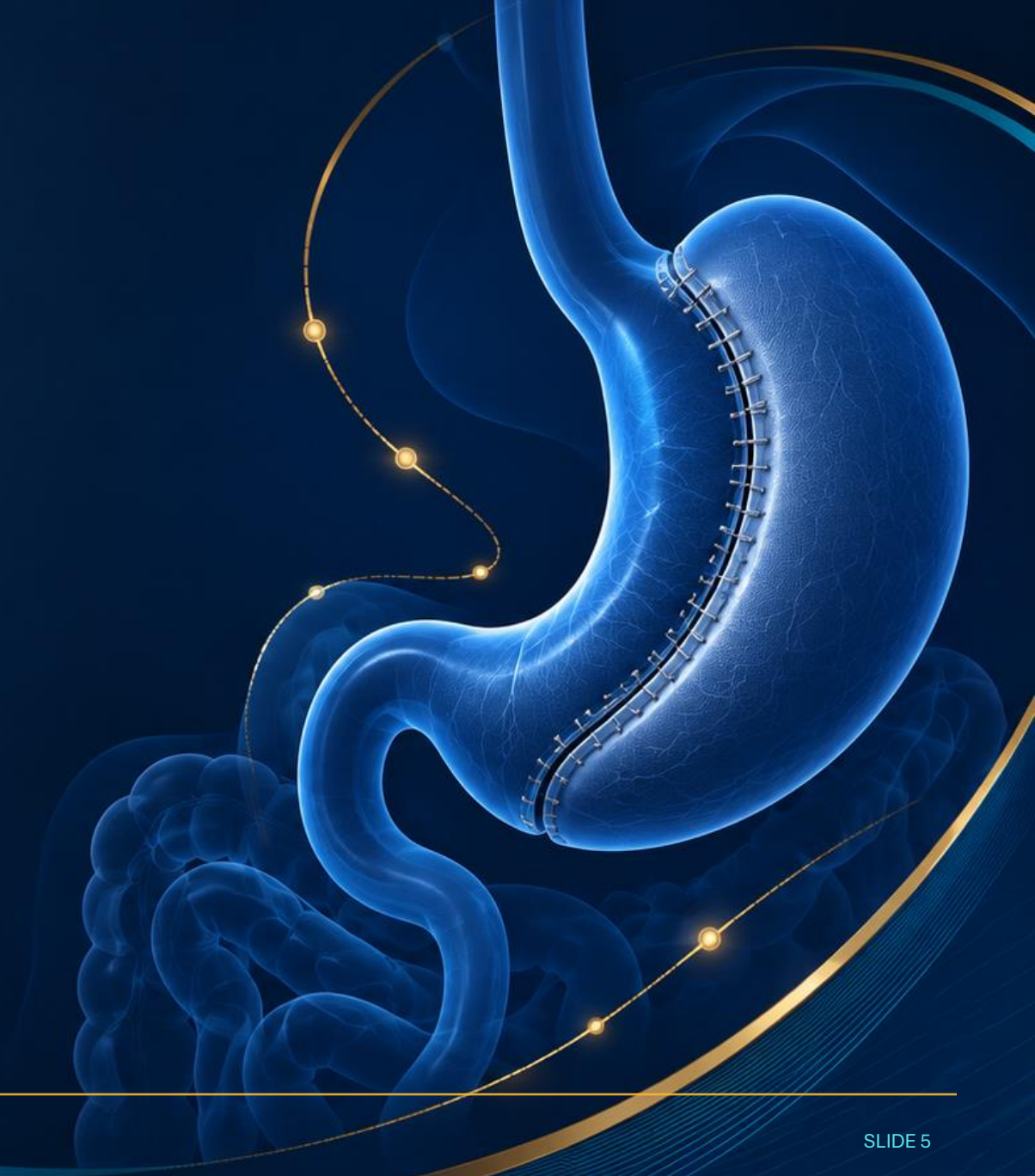
Primary outcomes over a 3-year follow-up period

Primary Objective

To compare the efficacy of One Anastomosis Gastric Bypass (OAGB) and Roux-en-Y Gastric Bypass (RYGB) over 3 years.

Key Outcome Domains

Weight loss measured by % total weight loss (%TWL).
Reduction in body mass index (BMI).
T2DM remission defined as HbA1c < 6.5% without anti-diabetic medication.



Study Design

Prospective comparative study

Design
Prospective
comparative study

Setting
Department of
General Surgery,
Hayatabad Medical
Complex, Peshawar

Period
January 2022 to
December 2024

Groups
MGB (n = 50) vs RYGB
(n = 50)

Total sample: 100 patients with severe obesity

Equal allocation: 50 OAGB + 50 RYGB

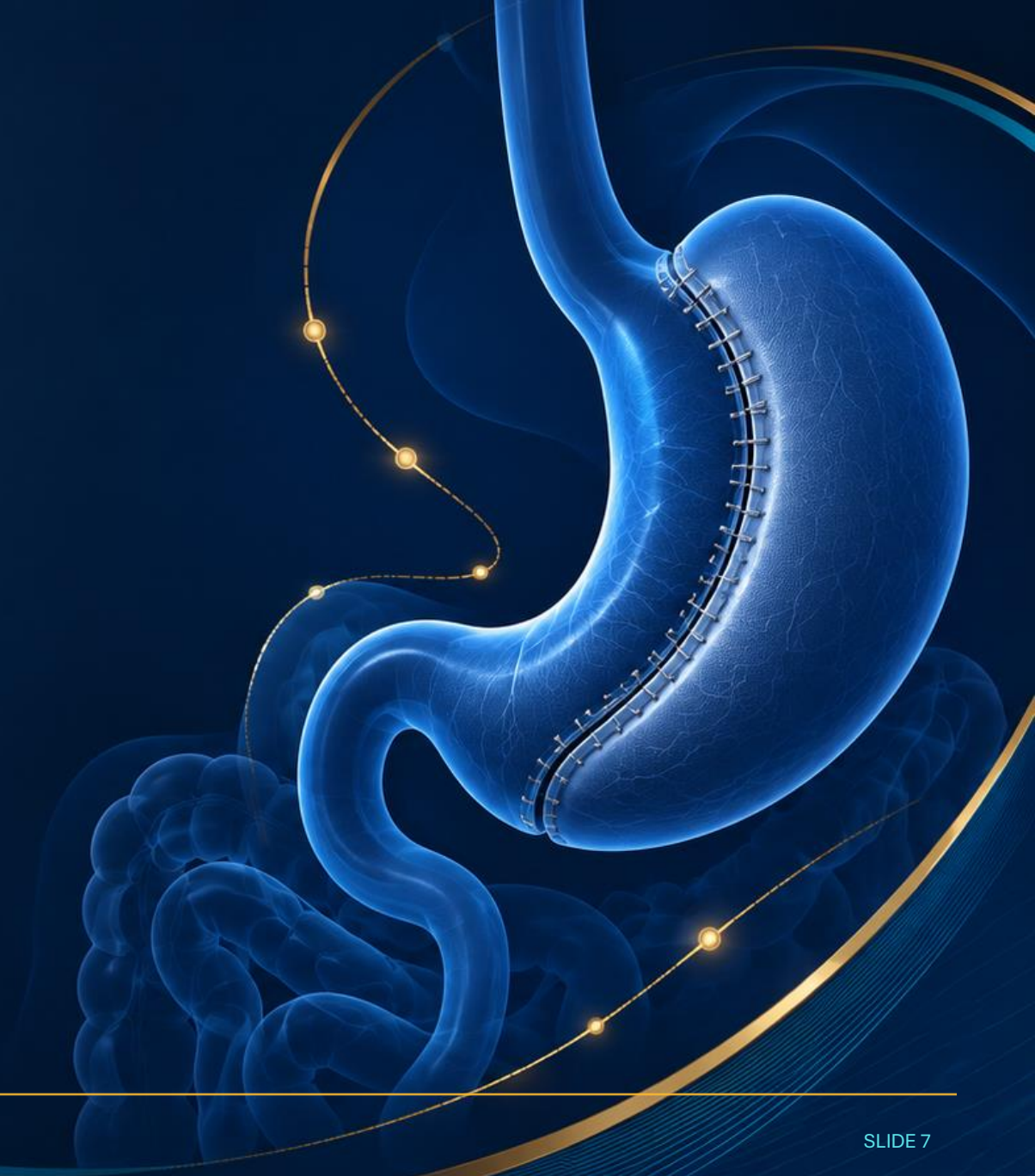
Patient Selection / Eligibility

Inclusion criteria for study enrollment

Eligible Patients

Severe obesity with BMI $\geq 40 \text{ kg/m}^2$.
BMI $\geq 35 \text{ kg/m}^2$ with significant obesity-associated disease.
Patients allocated to OAGB or RYGB groups.
Follow-up assessment planned at 1, 2, and 3 years postoperatively.

Study cohort: n = 100
OAGB n = 50 | RYGB n = 50



Methodology

How the comparative analysis was performed

- 1 Enroll eligible patients
- 2 Allocate equally into two procedure groups
- 3 Measure weight loss and BMI reduction
- 4 Assess T2DM remission status
- 5 **Compare outcomes at 1, 2, and 3 years**

Primary outcomes were assessed at 1, 2, and 3 years postoperatively.



Outcome Measures

Endpoints used to compare OAGB and RYGB

Weight Loss

%TWL

Percentage of total weight loss

BMI Change

BMI ↓

Reduction in body mass index

Diabetes Remission

HbA1c < 6.5%

Without anti-diabetic medication

Safety Profile

Complications

Nutritional deficiency, reflux, ulcers

Main comparison: sustained metabolic benefit and safety at 3 years.

Results: Weight Loss

Both procedures produced sustained weight loss at 3 years

Mean %TWL at 3 Years

32.5%

$\pm 4.2\%$



OAGB

30.8%

$\pm 5.1\%$



RYGB

No statistically significant difference between groups ($p = 0.06$)

Interpretation

OAGB and RYGB showed comparable long-term weight loss outcomes after 3 years of follow-up.

Results: Diabetes Remission

OAGB showed higher remission at 3 years

T2DM Remission at 3 Years

OAGB

84%

HbA1c < 6.5% without medication

vs

RYGB

72%

HbA1c < 6.5% without medication

Statistically higher remission with OAGB (p = 0.04)

Key message

OAGB achieved superior diabetes remission compared with RYGB.

Clinical interpretation

Both procedures improved metabolic outcomes, but the OAGB group demonstrated a higher remission rate at 3-year follow-up.

Operative Time & Complications

Efficiency advantage with comparable safety profile

Operative Time

OAGB was significantly shorter

$p < 0.01$

A practical advantage in operative workflow and theatre utilization.

Complication Profile

Overall complication rates were comparable between the groups. Nutritional deficiencies and reflux symptoms were comparable. A trend toward more marginal ulcers was observed in the OAGB group.

Safety summary: comparable complications, with ulcer trend requiring follow-up attention.

Discussion & Conclusion :

How to interpret the comparative outcomes

What the findings suggest

Both OAGB and RYGB achieved significant and sustained weight loss.

Weight-loss outcomes were comparable at 3 years.

OAGB showed a statistically superior T2DM remission rate.

OAGB also offered the advantage of shorter operative time.

Balance of Benefits

Comparable weight loss

+

Higher diabetes remission

+

Shorter operative time

OAGB appears to be an effective alternative to RYGB in carefully selected patients.

Thank You

Questions & Discussion

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No significant relationships.