

SESSION 2 ADULT SESSION

USE OF ADJUNCTIVE THERAPIES AND OBESITY MEDICATIONS IN DIABETES



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The logo features the word "EPIC" in large, bold, orange letters. The letter "C" is stylized as a circle containing a blue and orange icon of a family (two adults and a child). Below "EPIC" is the word "DIABETES" in large, bold, black letters, and below that is the word "CONFERENCE" in large, bold, black letters.

EPIC DIABETES CONFERENCE

JUNE 1, 2024 CU ANSCHUTZ MEDICAL CAMPUS

EMPOWERING PATIENTS
FOR
INDIVIDUALIZED CARE



CONFLICTS OF INTEREST

Research support: Diasome pharmaceuticals Inc.



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OVERWEIGHT & OBESITY

- Overweight(OW)/Obesity (OB): chronic disease with numerous metabolic, physical, and psychosocial complications → presents a risk to health (WHO)
- Treatment is indicated in people who have OW/OB complicated by other chronic medical conditions in the setting of Body Mass Index (BMI) >30
- BMI is a flawed indicator: Waist-Hip ratio, Hip-Height Ratio measurements are more useful
- Many treatment options to help manage weight especially in the setting of Diabetes.
- Ideal agent: Manage weight and improve diabetes control with minimal side effects

OVERVIEW

Least weight loss

Most weight loss



Lifestyle changes

Metformin

“Gliptins”

“-Flozins”

Phentermine

- 12 weeks treatment
- 2-5% weight loss



Glucagon like peptide
receptor agonists



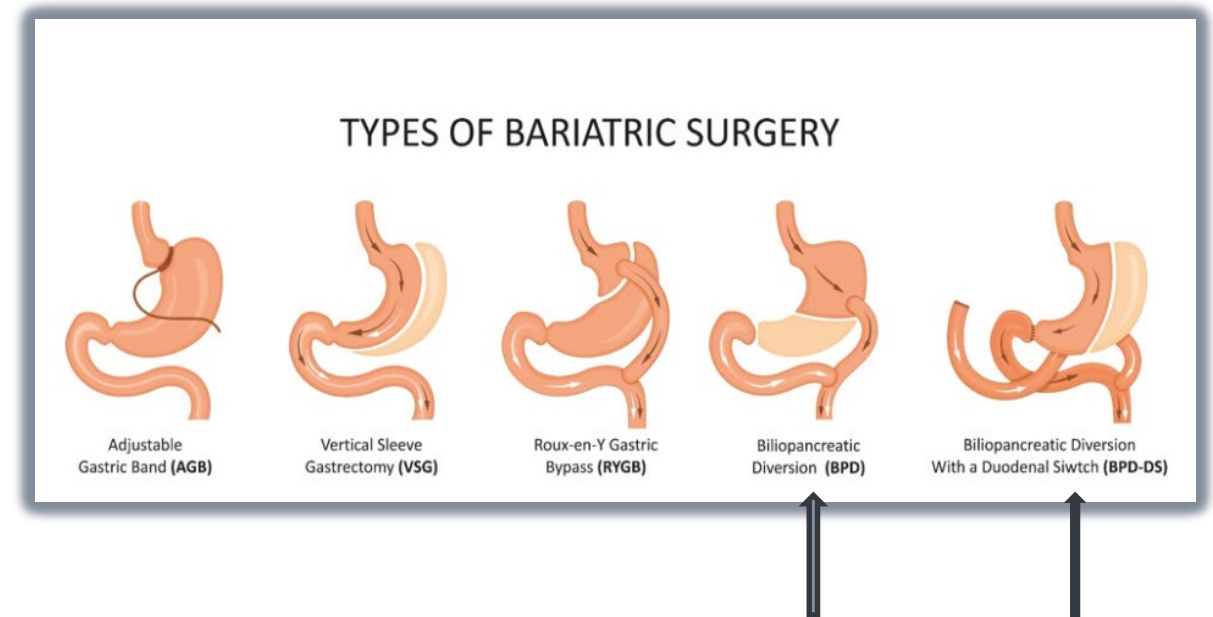
Bariatric surgery

WHAT IS SUCCESS?

Bariatric surgery is the current Gold Standard

→ weight loss of 25-30%

- Major surgery
- Nutritional/vitamin deficiencies
- Post-surgery hypoglycemia
- Dumping syndrome
- **Experienced centers** with multidisciplinary team for pre and post-op management
- 25-35% of patients are considered “secondary non-responders” → have regained some or most of the weight back



PHARMACOLOGIC MANAGEMENT OF OBESITY

**** NOT CURRENTLY FDA APPROVED FOR USE IN TYPE 1 DIABETES ****



THE OTHER END OF THE SPECTRUM

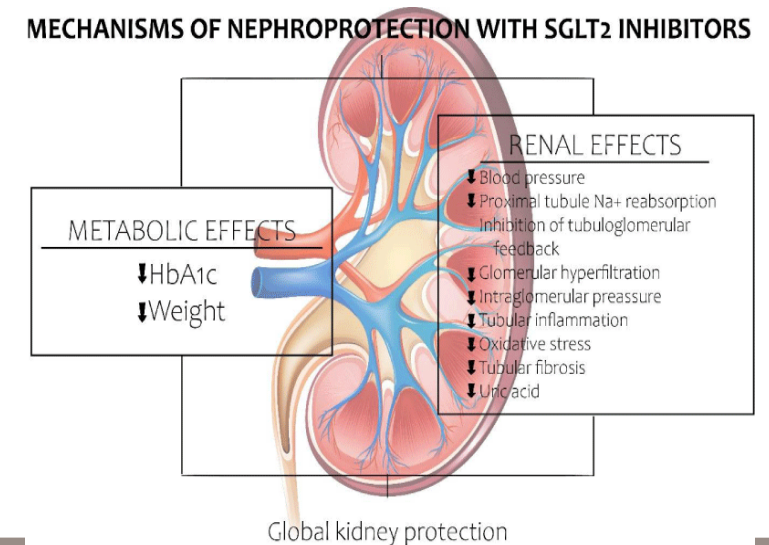
- The “gliptins” aka Dipeptidyl peptidase 4 (DPP4) inhibitors- Sitagliptin (**Januvia**), Linagliptin (**Tradjenta**) , Alogliptin (**Nesina**) , Saxagliptin (**Onglyza**)
- **Lower glucose by**
 1. Increasing chemicals that increase insulin release by the pancreas
 2. Decrease the release of glucose by the liver
- Weight neutral- due to lower risk of hypoglycemia, may lead to less weight gain (less snacking)

THE OTHER END OF THE SPECTRUM...

- Metformin → around since the 1950's, FDA approved 1994
- Lowers blood glucose by
 1. Reducing the release of glucose by the liver
 2. Increases absorption of glucose from the bloodstream
- Weight loss mechanism discovered recently* – produces a hunger suppressing molecule
- Average weight loss of 2-5% proportionate to length of use
- Cheap and easily available. + impact on memory/stroke risk, r/o certain cancers
- Gastrointestinal issues, limited use in patients with kidney issues

THE OTHER END OF THE SPECTRUM...

- The “Flozins” : Empagliflozin (Jardiance), Dapagliflozin (Farxiga), Canagliflozin (Invokana) and **Sotagliflozin (Inpefa)***
- Increase the amount of sodium and glucose excreted by the kidneys
- Beneficial effects on the kidneys & heart
- Improves heart function
- ↑ Glucose excretion → calorie deficit → weight loss
- **Weight loss of 1-3%**



THE BIG GUNS

Glucagon like peptide receptor agonists

Liraglutide – Victoza

Dulaglutide- Trulicity

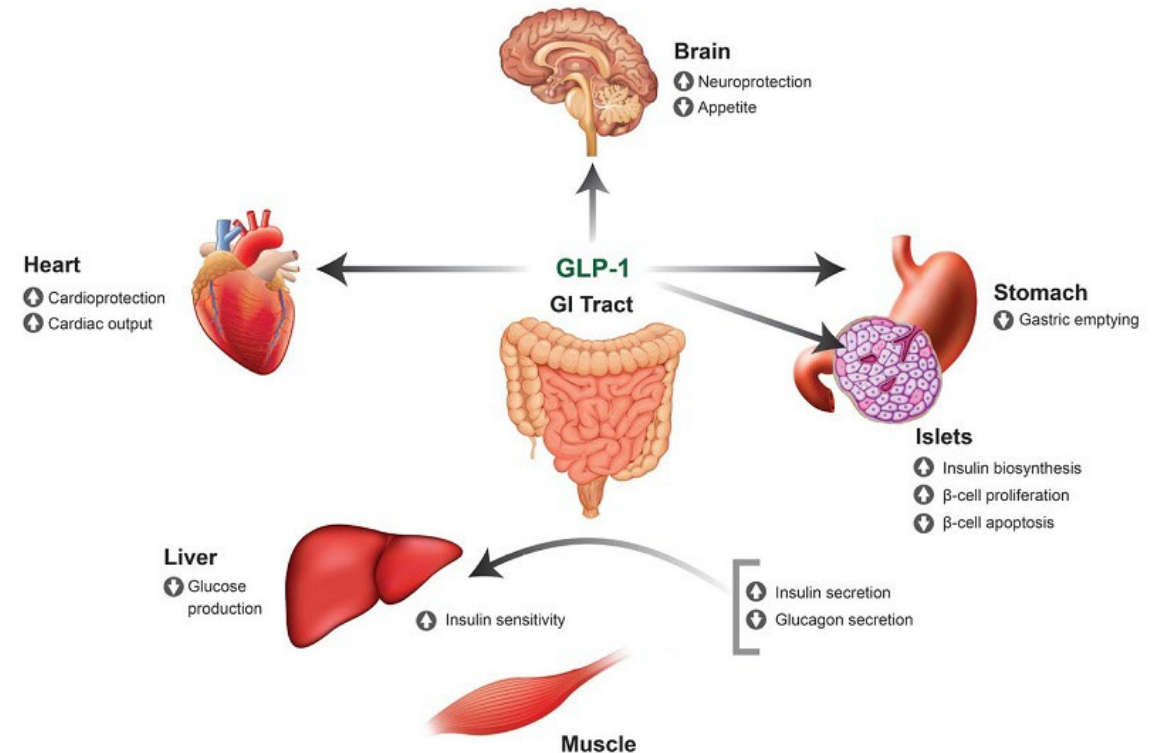
Semaglutide - Ozempic, Wegovy

Tirzepatide – Mounjaro (acts on additional receptor)



GLP 1 AGONISTS: THE FINAL FRONTIER

- Slows down stomach emptying- ++ satiety
- Effects on the reward center of the brain : sugary foods don't hold the same appeal
- Effects on taste buds: alter the perception of sweet foods and makes it less desirable
- **Semaglutide and Tirzepatide approaching the success of bariatric surgery (15-18% and ~20-25% weight loss).**
- **Retatrutide – triple receptor agonist currently in Phase 3 trials, has shown 25-30% weight loss**



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TOO GOOD TO BE TRUE?

- Off-label use in limited patients with Type 1 diabetes
- Increase risk of diabetic ketoacidosis → require close monitoring during the first 3 months and with any dose escalation
- Increased risk of gastroparesis – avoid in patients suspected of having gastroparesis
- Increased risk of retinopathy progression especially in the first few months due to improved blood sugar control
- Precautions need to be taken for surgeries
- Contraindicated in pregnancy



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CONCLUSIONS

- OW/OB is a growing health concern worldwide but especially more so in our diabetic patients
- ~60% of Type 1 diabetics now in the OW/OB category with very few medications approved for use for treatment of Obesity
- Lifestyle changes MUST be used in conjunction with any treatment option
- Bariatric surgery used to be the Gold Standard of success in treatment of Obesity but likely not for long
- Several medication options now available with varying degrees of success in weight management
- Insurance however may not cover these and they can be very expensive
- Close follow up with your medical team is crucial in ensuring success and minimizing risks