Novel obesity treatments

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1 Semaglutide, a glucagon-like peptide-1 receptor agonist (GLP1RA) is a weekly subcutaneous injection for adults with obesity

Semaglutide was approved for adults with a body mass index (BMI) of 30 kg/m^2 or greater, and those with a BMI of 27 kg/m^2 or greater with 1 or more obesity-related comorbidities (e.g., hypertension, type 2 diabetes, dyslipidemia, obstructive sleep apnea). The starting dose is 0.25 mg with up-titration, as tolerated, to 2.4 mg.[1]

2 As an adjunct to intensive behavioural therapy, semaglutide results in more weight loss and improves measures of cardiometabolic health than behavioural therapy alone

In a randomized controlled trial (RCT) of participants undergoing intensive behavioural therapy — involving decreased caloric intake, increased physical activity and counselling sessions — those who also received semaglutide (2.4 mg) lost an average of 16.0% of their baseline weight, compared with 5.7% among those who received placebo.[1] Participants who received semaglutide had improvements in diastolic blood pressure, lipid profiles and glycated hemoglobin levels.[1] Weight gain may occur if semaglutide is stopped, but long-term data on safety for indefinite use are not yet available.

3 Tirzepatide, a dual glucose-dependent insulinotropic polypeptide and GLP1RA, is a weekly subcutaneous injection approved for adults with obesity

In an RCT, adults who received tirzepatide lost a mean weight of 15.0%, 19.5% and 20.9% at doses of 5 mg, 10 mg or 15 mg, respectively, compared with 3.1% with placebo; waist circumference, blood pressure and lipid levels also decreased over 72 weeks.[2]

4 Semaglutide and tirzepatide have a similar profile of adverse effects and contraindications

Both medications are associated with gastrointestinal adverse effects, which are minimized by slow dose titration. Contraindications include personal or family history of medullary thyroid cancer, multiple endocrine neoplasia type 2 or hypersensitivity. Both semaglutide and tirzepatide are safe in people with a glomerular filtration rate greater than 15 mL/min/1.73 m^2.[3] No laboratory monitoring is required.

5 Potential adverse effects of GLP1RAs continue to be monitored with post-market surveillance

Regulatory bodies are investigating a possible link between GLP1RAs and suicidal ideation. The United States Food and Drug Administration has a medication guide warning of suicidal behaviour for GLP1RAs.[4] A recent study found a higher risk of thyroid cancer of all histologic subtypes for patients treated with GLP1RAs compared with matched controls.[5] Further investigation is ongoing, and patients should be counselled using current evidence.

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