Journal of
Obesity & Weight Loss Therapy

Perspective Open Access

Pharmacotherapy for Obesity: Evaluating the Efficacy and Safety of New Weight Loss Medications

Rena Knoll*

Department of Education and Psychology, Frey University, Germany

Introduction

Obesity is a multifactorial, chronic condition that continues to rise globally, with serious implications for public health. It is linked to a host of comorbidities, including cardiovascular disease, type 2 diabetes, and certain cancers. Traditional approaches to weight loss, such as diet and exercise, have proven insufficient for many individuals, leading to a growing interest in pharmacotherapy as a viable treatment option. In recent years, new weight loss medications have emerged, offering promising results in terms of both efficacy and safety. This article will examine the latest advancements in obesity pharmacotherapy, evaluating their effectiveness, safety profiles, and potential impact on the management of obesity [1].

Description

Pharmacotherapy for obesity

Overview of obesity pharmacotherapy: Pharmacotherapy for obesity aims to help individuals achieve and maintain weight loss by influencing appetite, metabolism, fat storage, or energy expenditure. Weight loss medications are typically prescribed to individuals with a body mass index (BMI) of 30 or higher, or those with a BMI of 27 or higher who also have obesity-related comorbidities. These medications are generally used as part of a comprehensive weight management plan, which includes lifestyle modifications such as diet and exercise. Historically, weight loss medications have faced challenges in terms of efficacy, side effects, and long-term safety. However, recent developments in pharmacology have produced more refined and targeted medications that offer significant benefits for those struggling with obesity [2].

New weight loss medications: mechanisms of action and efficacy: Several new medications have been developed over the past decade, each with a unique mechanism of action aimed at achieving weight loss. Some of the most notable medications include:

GLP-1 receptor agonists (semaglutide, liraglutide): One of the most groundbreaking advances in obesity pharmacotherapy is the use of GLP-1 (glucagon-like peptide-1) receptor agonists, such as semaglutide and liraglutide. GLP-1 is a hormone that regulates appetite and insulin secretion [3]. By mimicking the action of GLP-1, these medications help reduce appetite, increase satiety, and slow gastric emptying, which can result in significant weight loss.

Semaglutide (branded as Wegovy for weight loss) has been particularly successful in clinical trials, with patients experiencing an average weight loss of 15-20% of their body weight. Liraglutide (Saxenda) has also shown effective results, with studies showing weight loss of around 5-10%. These medications are administered via subcutaneous injection, typically once a week for semaglutide and daily for liraglutide, and are often combined with a reduced-calorie diet and increased physical activity [4].

Naltrexone/bupropion (contrave): Naltrexone/bupropion is a combination medication that works through two different mechanisms. Naltrexone, traditionally used to treat addiction, can reduce appetite by altering the reward pathways in the brain. Bupropion, an antidepressant, works on the central nervous system to suppress appetite and increase energy expenditure.

This combination has shown promise in helping individuals lose weight, with some clinical trials reporting an average weight loss of 5-10% of total body weight. The medication is taken in pill form, making it convenient for long-term use. However, like many weight loss drugs, it is most effective when used in combination with lifestyle modifications [5].

Phentermine/topiramate (qsymia): Phentermine/topiramate is another combination medication that combines the appetite-suppressing effects of phentermine with the weight loss-promoting effects of topiramate, an anticonvulsant drug. Phentermine increases the release of norepinephrine, a neurotransmitter that suppresses appetite, while topiramate may increase feelings of fullness and reduce cravings.

Clinical studies have demonstrated that phentermine/topiramate can help individuals achieve significant weight loss, with an average reduction of 5-10% of body weight. This medication is taken in pill form and is generally prescribed for short-term use. It is effective in combination with diet and exercise but carries some risk of side effects, including cognitive disturbances, such as memory problems.

Orlistat (alli, xenical): Orlistat is one of the few weight loss medications available that does not act directly on appetite. Instead, it works by inhibiting the enzyme lipase, which is responsible for breaking down fat in the digestive system. By blocking this enzyme, orlistat prevents about 30% of dietary fat from being absorbed.

While orlistat has been available for years and is considered relatively safe, its efficacy is generally lower than newer medications. Weight loss results tend to be modest, with typical reductions of around 5-10% of body weight. Common side effects, such as gastrointestinal discomfort, have led to mixed adherence and less widespread use.

Safety considerations and side effects: While the newer weight loss medications offer significant benefits, they also come with potential risks and side effects. For example, GLP-1 receptor agonists can cause gastrointestinal symptoms, such as nausea and diarrhea, especially when treatment is initiated. Additionally, these medications have a

***Corresponding author:** Rena Knoll, Department of Education and Psychology, Frey University, Germany, E-mail: rk.rena@knoll.com

Received: 03-Dec-2024, Manuscript No: jowt-25-157830, **Editor assigned:** 05-Dec-2024, Pre QC No: jowt-25-157830(PQ), **Reviewed:** 19-Dec-2024, QC No: jowt-25-157830, **Revised:** 23-Dec-2024, Manuscript No: jowt-25-157830(R) **Published:** 30-Dec-2024, DOI: 10.4172/2165-7904.1000755

Citation: Rena K (2024) Pharmacotherapy for Obesity: Evaluating the Efficacy and Safety of New Weight Loss Medications. J Obes Weight Loss Ther 14: 755.

boxed warning for the risk of thyroid tumors in animals, though this risk has not been definitively demonstrated in humans [6].

Naltrexone/bupropion may cause side effects such as nausea, insomnia, and elevated blood pressure. It is contraindicated in individuals with a history of seizures, eating disorders, or alcohol/substance abuse due to the risk of these conditions worsening.

Phentermine/topiramate is generally well-tolerated, but side effects may include dry mouth, constipation, insomnia, and cognitive effects like memory problems. The use of this medication is also associated with a small risk of birth defects and should be avoided during pregnancy.

Orlistat, while generally considered safe, may cause gastrointestinal side effects like diarrhea, bloating, and fatty stools, especially when high-fat foods are consumed.

The role of pharmacotherapy in long-term obesity management

Although pharmacotherapy can play a critical role in achieving weight loss, it is important to emphasize that medications should be used as part of a broader, long-term weight management strategy. Weight loss medications are most effective when combined with lifestyle changes, such as dietary modifications, increased physical activity, and behavioral therapy [7].

Patients using these medications should be closely monitored by healthcare professionals to assess efficacy and identify potential side effects [8]. Additionally, medications are generally intended for long-term use and can help patients maintain weight loss over time, preventing the weight regain that is often seen with more traditional weight loss strategies.

Conclusion

The landscape of obesity treatment has evolved significantly with the development of new pharmacotherapies. Medications like GLP-1 receptor agonists, naltrexone/bupropion, and phentermine/topiramate offer new hope for individuals who struggle with obesity and its related health conditions. While these medications have shown strong efficacy in clinical trials, they come with potential side effects that must be carefully managed. Pharmacotherapy for obesity is not a one-size-fits-all solution, but when used in conjunction with lifestyle modifications, it has the potential to be a powerful tool in the fight against obesity. As research continues, new medications and combinations may offer even more effective and safer options for patients seeking to manage their weight and improve their overall health. Ultimately, successful long-term weight management will require a holistic approach, with pharmacotherapy playing an important but complementary role in a comprehensive treatment plan.

Acknowledgement

None

Conflict of Interest

None

References

1. Dalamaga M, Diakopoulos KN, Mantzoros CS (2012) The role of adiponectin in cancer: a review of current evidence. Endocr Rev 33: 547-594.
2. Wiklund P, Toss F, Weinehall L, Göran Hallmans, Franks PW, et al. (2008) Abdominal and gynoid fat mass are associated with cardiovascular risk factors in men and women. J Clin Endocrinol Metab 93: 4360-4366.
3. Chooi YC, Ding C, Magkos F (2019) The epidemiology of obesity. Metabolism 92: 6-10.
4. Anuurad E, Shiwaku K, Nogi A, Kitajima K, Enkhmaa B, et al. (2003) The new BMI criteria for asians by the regional office for the western pacific region of WHO are suitable for screening of overweight to prevent metabolic syndrome in elder Japanese workers. J Occup Health 45: 335-343.
5. Wiklund P, Toss F, Weinehall L, Hallmans G, Franks PW, et al. (2008) Abdominal and gynoid fat mass are associated with cardiovascular risk factors in men and women. J Clin Endocrinol Metab 93: 4360-4366.
6. Piché ME, Poirier P, Lemieux I, Després JP (2018) Overview of epidemiology and contribution of obesity and body fat distribution to cardiovascular disease: an update. Prog Cardiovasc Dis 61: 103-113.
7. Fock KM, Ang TL (2010) Epidemiology of Helicobacter pylori infection and gastric cancer in Asia. J Gastroenterol Hepatol 25: 479-486.
8. Thrift AP (2020) Global burden and epidemiology of Barrett esophagus and oesophageal cancer. Nat Rev Gastroenterol Hepatol 18: 432-443.