Pharmacotherapy for pediatric obesity: A Vital component of comprehensive management.

Danial Esmaelnezhad*

Department of Pharmaceutics, University of Uyo, Nigeria

Introduction

Pediatric obesity is a significant public health concern, with far-reaching consequences for the health and well-being of children and adolescents. While lifestyle modifications, including dietary changes and increased physical activity, remain fundamental in the management of pediatric obesity, pharmacotherapy has emerged as an important adjunctive tool. This article delves into the role of pharmacotherapy in the comprehensive management of pediatric obesity, emphasizing its benefits, considerations, and potential impact on young patients' lives [1, 2].

Pediatric obesity has reached alarming levels worldwide, with an increasing number of children and adolescents affected by excess body weight. It is associated with a heightened risk of numerous health problems, including type 2 diabetes, cardiovascular diseases, sleep apnea, and psychosocial issues. Effective interventions are essential to mitigate these risks and improve the overall health of young patients [3, 4].

Pharmacotherapy for pediatric obesity is not a stand-alone solution but rather a complementary component within a comprehensive treatment plan. It is typically considered when children and adolescents have severe obesity (defined as a body mass index, or BMI, greater than or equal to 120% of the 95th percentile) or when obesity-related comorbidities are present. The decision to incorporate pharmacotherapy should be made after thorough assessment and in consultation with healthcare providers experienced in pediatric obesity management [5, 6].

The selection of appropriate candidates for pharmacotherapy is crucial. Clinicians carefully evaluate factors such as age, BMI, comorbidities, and the readiness of the child and their family to engage in comprehensive care In the United States, two medications are FDA-approved for pediatric obesity: orlistat (Xenical, Alli) for adolescents aged 12 and older, and liraglutide (Saxenda) for adolescents aged 12 to 17. These medications work through distinct mechanisms to assist with weight management Understanding how medications work is essential for both healthcare providers and families. For example, orlistat reduces fat absorption, which may lead to gastrointestinal side effects, while liraglutide affects appetite regulation Treatment plans must be individualized to suit the unique needs and preferences of each child. This includes considering potential side effects and addressing any concerns or challenges that may arise during treatment [7, 8].

Pharmacotherapy can assist children and adolescents in achieving modest but clinically significant reductions in body weight when combined with lifestyle modifications Weight loss often results in improvements in obesity-related comorbidities such as insulin resistance, hypertension, and sleep apnea Successful weight management can enhance selfesteem and psychosocial well-being, potentially reducing the risk of depression and anxiety In some cases, the incorporation of pharmacotherapy can serve as a motivating factor, encouraging children and their families to maintain healthier lifestyles Long-term safety and efficacy data for pediatric obesity pharmacotherapy are limited. Continued research is essential to gain a deeper understanding of the effects of these medications over extended periods [9, 10].

Conclusion

Pharmacotherapy has an important role in the comprehensive management of pediatric obesity, particularly when lifestyle interventions alone do not suffice. However, its use should be judicious and closely monitored, with a focus on the overall health and well-being of young patients. Ongoing research and the development of new medications offer hope for improved strategies to address this complex health issue. Ultimately, the goal is not just weight loss but the longterm health and quality of life of children and adolescents affected by obesity.

References

- Fried JL, Maxey HL, Battani K, et al. Preparing the future dental hygiene workforce: knowledge, skills, and reform. J Dent Educ. 2017;81(9):eS45-52.
- 2. Yazdanian M, Rostamzadeh P, Rahbar M, et al. The potential application of green-synthesized metal nanoparticles in dentistry: A comprehensive review. Bioinorganic Chemistry and Applications. 2022;2022.
- Sharan J, Singh S, Lale SV, et al. Applications of nanomaterials in dental science: A review. J Nanosci 2017;17(4):2235-55.
- 4. Abou Neel EA, Bozec L, Perez RA, et al. Nanotechnology in dentistry: prevention, diagnosis, and therapy. int j nanomed. 2015:6371-94.
- 5. Noronha VT, Paula AJ, Durán G, et al. Silver nanoparticles in dentistry. Dental Materials. 2017;33(10):1110-26.

Citation: Esmaelnezhad D. Pharmacotherapy for Pediatric Obesity: A Vital Component of Comprehensive Management. Asian J Biomed Pharm Sci. 2024;14(104):221

^{*}Correspondence to: Danial Esmaelnezhad, Department of Pharmaceutics, University of Uyo, Nigeria, E mail: Danial Esmaelnezhad@u.edu.ng Received: 08-Mar-2024, Manuscript No. AABPS-23-114200; Editor assigned: 09-Mar-2024, PreQC No. AABPS-23-114200(PQ); Reviewed: 23-Mar-2024, QC No. AABPS-23-114200; Revised: 28-Mar-2024, Manuscript No. AABPS-23-114200(R); Published: 04-Apr-2024, DOI:10.35841/aabps-14.104.221

- 6. dos Santos Jr VE, De Vasconcelos FM, Ribeiro AG, et al. Paradigm shift in the effective treatment of caries in schoolchildren at risk. Int Dent J. 2012;62(1):47-51.
- 7. Lang NP. Oral implants: The paradigm shift in restorative dentistry. J Dent 2019;98(12):1287-93.
- 8. Young DA, Lyon L, Azevedo S. The role of dental hygiene in caries management: A new paradigm. J dent hyg. 2010;84(3):121-9.
- Yamada Y, Nakamura-Yamada S, Umemura-Kubota E, et al. Diagnostic cytokines and comparative analysis secreted from exfoliated deciduous teeth, dental pulp, and bone marrow derived mesenchymal stem cells for functional cell-based therapy. Int J Mol Sci. 2019;20(23):5900.
- Ramos?Gomez FJ, Silva DR, Law CS, et al. Creating a new generation of pediatric dentists: A paradigm shift in training. J Dent Educ. 2014;78(12):1593-603.