

Therapeutic Approaches for Obesity-induced Cognitive Impairment: Preclinical Perspectives

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Abstract

Obesity is a global pandemic with profound implications for public health. Its association with diseases such as diabetes, cardiovascular disorders, musculoskeletal diseases, cancer, and mental health disorders is well-established. Recent attention has focused on the impact of obesity on neurological and neurodegenerative conditions, particularly cognitive impairment. Unfortunately, therapeutic interventions for obesity-induced cognitive impairment are currently lacking. This presentation discusses the effects of obesity on brain structure, function, and cognition, along with the neurobiological mechanisms involved. It explores therapeutic strategies, including plant extracts, aerobic exercise, and drug development efforts, to address cognitive impairment in obesity. Preclinical perspectives and future research directions are also covered to enhance our understanding and treatment of obesity-induced cognitive impairment.