

The Obesity Paradox in Hemodialysis Patients: A Critical Review of the Literature and its Clinical Implications

Ms. Kamble Varsha Namdevrao and Dr. Tarique Deshmukh

Royal College of Pharmaceutical Education and Research Abdul Muttalib Campus, Malegaon, Nashik, MS

Abstract: Obesity is a major global health crisis and a leading risk factor for the development and progression of chronic kidney disease (CKD) to end-stage renal disease (ESRD). However, a counterintuitive phenomenon, known as the "obesity paradox," has been consistently observed in patients undergoing hemodialysis. This paradox is characterized by the finding that a higher body mass index (BMI) is associated with improved survival and lower mortality rates in this specific patient population. This comprehensive review critically analyzes the current literature on the complex relationship between obesity and mortality in hemodialysis patients. It explores the proposed biological mechanisms, including the role of nutritional reserves, adipose tissue as an endocrine organ, and the confounding influence of protein-energy wasting (PEW) and sarcopenia. Furthermore, the article addresses significant methodological limitations of previous studies, such as the inherent flaws of BMI as a marker of health in this population and the pervasive issue of reverse causality. The review concludes that while the obesity paradox is a robust statistical observation, it is likely a reflection of a more complex interplay of physiological factors. It advocates for a shift in clinical practice from a simple focus on BMI to a more nuanced, patient-centered approach that prioritizes the preservation of lean body mass and nutritional status, rather than a singular goal of weight reduction.

Keywords: Obesity Paradox Unintentional Weight Loss Lean Body Mass (LBM) Protein-Energy Wasting (PEW)

