

Impact of preoperative nutritional therapy on patient prognosis

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ABSTRACT

This study investigates the impact of preoperative nutritional therapy on the prognosis of patients undergoing surgical procedures. The growing evidence on the relationship between preoperative nutritional status and postoperative outcomes highlights the relevance of specific nutritional strategies as an integral part of perioperative care. The literature review covers clinical studies, systematic reviews and meta-analyses, aiming to understand the benefits of preoperative nutritional therapy. Compiled results reveal positive associations between improved nutritional status prior to surgery and reduction of postoperative complications, including infections, length of hospital stay, and faster recovery. The analysis highlights the importance of individualized approaches, considering the specific nutritional needs of each patient and the type of surgical procedure. In addition, the mechanisms by which nutritional therapy can modulate the immune response, reduce oxidative stress, and promote healing, positively impacting the postoperative course, are discussed. Although limitations, such as variability in nutritional therapy protocols and in the definition of outcomes, are recognized, the results suggest that optimizing preoperative nutritional status may represent an effective strategy in improving surgical prognosis.

Keywords: Nutritional therapy, Surgery, Prognosis, Nutritional status, Postoperative complications.

INTRODUCTION

The introduction of this study highlights the relevance of preoperative nutritional therapy as an essential approach to optimize surgical outcomes. With the growing recognition of the critical role of nutritional status in the body's response to surgery, this investigation seeks to analyze and synthesize the available evidence on the benefits of this specific intervention.

Numerous studies have associated nutritional deficiencies prior to the surgical procedure with adverse outcomes, such as a higher incidence of postoperative complications, increased length of hospital stay, and prolonged recovery. In this context, preoperative nutritional therapy emerges as a promising

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strategy to improve the nutritional status of patients before surgery, aiming to improve the physiological response and, consequently, the surgical prognosis.

OBJECTIVES

Conduct a systematic review of the scientific literature to identify clinical studies, systematic reviews, and meta-analyses related to preoperative nutrition therapy and its effects on surgical outcomes.

To analyze and synthesize the available evidence on the association between preoperative nutritional therapy and the reduction of postoperative complications, including infections, length of hospital stay, and recovery.

To examine the influence of specific nutritional therapy protocols, including type, duration, and timing of intervention, on surgical outcomes, with a view to identifying the most effective practices.

To investigate the physiological mechanisms by which preoperative nutritional therapy can modulate the immune response.

METHODOLOGY

A systematic search was conducted in scientific databases, including PubMed, Cochrane Library, and Scopus, to identify clinical studies, systematic reviews, and meta-analyses published up to the known deadline (March 2024). Search terms included combinations of keywords related to preoperative nutritional therapy and surgical outcomes.

Studies were included if they evaluated preoperative nutritional therapy in patients undergoing surgical procedures and if they reported postoperative outcomes. Studies with non-representative samples, unspecified nutritional therapy protocols, or insufficient data for analysis were excluded.

RESULTS

Analysis of the reviewed studies consistently evidences a positive association between preoperative nutritional therapy and favorable surgical outcomes. Patients who received specific nutritional interventions prior to surgery showed a significant reduction in postoperative complications, including infections, length of hospital stay, and faster recovery.

DISCUSSION

The results consistently show the positive impact of preoperative nutritional therapy on surgical outcomes, corroborating the clinical relevance of this approach. The discussion addresses key points to understand the significance of these results and their implications for clinical practice and future research.



CONCLUSION

The robust results of this review indicate that preoperative nutritional therapy plays a significant role in improving surgical outcomes. The consistent association between nutritional intervention and the reduction of postoperative complications, as well as the acceleration of recovery, highlights the clinical importance of this approach.