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Nutritional Intervention and Management of Sarcopenia in Postoperative Gastric Cancer Patients: A Comprehensive Review

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ABSTRACT

Introduction: Due to altered gastrointestinal function, decreased dietary intake, and cancer treatment, postoperative gastric cancer patients frequently experience nutritional difficulties and progressive loss of skeletal muscle mass and strength. Therefore, there is a need for efficient nutritional strategies to combat sarcopenia is highlighted by the fact that these factors worsen muscle wasting.

Materials and Methods: A total of 38 pertinent articles from the major biomedical and nutritional databases, such as PubMed, MEDLINE, Scopus, Web of Science, and the Cochrane Library, were selected to provide pertinent information regarding nutritional strategies in the management of sarcopenia in postoperative gastric cancer patients. Terms like "sarcopenia," "nutritional management," "nutritional intervention," "muscle wasting," and "protein supplementation" were part of the primary search strategy. Articles examining nutritional interventions for "cancer", "gastric cancer," "stomach cancer," "gastro-intestinal cancers," and "postoperative care" were included in the secondary search strategy. Studies published within the years 1980- 2025 were included. Randomised controlled trials (RCTs), cohort studies, cross-sectional studies, and systematic reviews/meta-analyses were included. Results from the current review suggests that high protein diets, supplements of essential amino acids, and the incorporation of micronutrients like vitamin D, omega-3 fatty acids, calcium and antioxidants are important nutritional interventions for the patients with gastric cancer to increase their postoperative recovery and long-term survival.

Conclusion: Future studies should concentrate on improving dietary guidelines, advanced nutritional assessment tools and biomarkers, ultimately improving patient outcomes in gastric cancer patients.

Keywords: Cancer recovery, Muscle wasting, Personalised nutrition, Postoperative nutrition

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