

Nutritional Support During Chemotherapy

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I. INTRODUCTION

Chemotherapy is a cornerstone of cancer treatment but often comes with side effects that can significantly impact a patient's nutritional status. These include nausea, vomiting, mucositis, anorexia, and altered taste, leading to weight loss, malnutrition, and reduced treatment tolerance. Effective nutritional support during chemotherapy can improve treatment outcomes, enhance quality of life, and reduce hospital stays.

II. OBJECTIVES

1. To understand the nutritional challenges faced by patients during chemotherapy.
2. To identify nutritional support strategies suitable during chemotherapy.
3. To explore the impact of nutrition on treatment outcomes and patient recovery.

III. MATERIALS AND METHODS

This is a narrative review based on an extensive literature search in PubMed, Scopus, and Google Scholar using the terms: "chemotherapy," "nutrition," "nutritional support," "cancer," and "malnutrition." Articles selected include randomized controlled trials, meta-analyses, and clinical guidelines published from 2015 to 2024.

IV. DISCUSSION

Chemotherapy interferes with both nutrient intake and metabolism. GI side effects decrease oral intake, while systemic inflammation increases nutritional demands. Up to 80% of patients experience malnutrition.

Nutritional assessment should use tools like PG-SGA and MUST. Strategies include dietary counseling, oral supplements, and, if needed, enteral or parenteral nutrition. Specific nutrients like omega-3s, glutamine, and antioxidants have roles, though antioxidant use remains controversial.

A multidisciplinary approach with oncologists, dietitians, and nurses is vital for optimizing care.

V. RESULTS/FINDINGS

Patients receiving nutritional support show improved tolerance to chemotherapy, fewer complications, and enhanced survival. Early intervention improves outcomes significantly.

A study by Arends et al. (2021) showed a 35% reduction in chemotherapy toxicity among patients who received early nutritional intervention.

VI. CONCLUSION

Nutritional support is a critical yet often overlooked component of cancer care. Early assessment and individualized interventions enhance patient resilience, mitigate chemotherapy side effects, and improve outcomes. It should be integrated as standard practice.

Table 1: Common Side Effects of Chemotherapy and Nutritional Implications

Chemotherapy Side Effect	Nutritional Impact	Suggested Nutritional Strategy
Nausea and Vomiting	Decreased food intake	Small frequent meals, anti-nausea diet
Mucositis	Painful eating, weight loss	Soft bland foods, glutamine supplementation
Taste Changes	Altered appetite	Flavor enhancers, varied diet

Diarrhea	Fluid/electrolyte loss	Hydration, low-fiber diet
Fatigue	Reduced food preparation	Easy-to-prepare nutrient-dense foods

KEYWORDS

Nutrition, Chemotherapy, Malnutrition, Cancer, Nutritional Support, Oncology, Supplements

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