Nutritional Effects of Chemotherapy on Cancer Patients

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Editorial

Cancer is a complicated disease caused by various interactions between genes and the environment, and it is one of the world's leading causes of death. Malnutrition, sarcopenia, and cachexia in cancer patients, particularly those with gastrointestinal malignancies, are caused by a number of multifactorial illnesses and can have an impact on cancer patients' survival and recovery. Malnutrition caused by loss of appetite, indigestion, malabsorption, and metabolic issues is a typical complication in cancer patients undergoing treatment. Additionally, chemotherapy side effects such as appetite loss, dyspepsia, tiredness, constipation, diarrhoea, dysphagia, changes in sensitivity to food temperature, xerostomia, anaemia, and early satiation impact cancer patients receiving chemotherapy. These factors are linked to decreased food intake, poor nutritional absorption, and changes in body composition, all of which can lead to malnutrition and cachexia.

Cancer cachexia, which is characterised by increasing muscle wasting that cannot be entirely reversed by standard nutrition therapy, is a common cause of malnutrition in oncology patients. Weight loss in cancer patients is independently related with a worse prognosis and increased toxicity of anticancer treatments, resulting in reductions in or stoppage of scheduled therapy, according to studies. The purpose of nutritional intervention for such patients is to enhance their nutritional status by minimising therapeutic adverse effects, providing tailored patient care, and increasing food intake while respecting patients' food habits in order to deliver more progressive interventions. Patients with cancer will benefit from improved nutritional status in terms of both treatment and quality of life. Nutritional therapies may be beneficial in individuals with gastrointestinal cancers such as stomach and colon cancer, according to research.

However, few studies have been conducted on the impact of dietary intervention on patients with digestive system cancer who are receiving chemotherapy. Furthermore, dietary recommendations for this group have not been harmonised or stated for different settings and events. In this study, we implement nutrition advice for cancer patients from organisations and nutritional experts into the culinary culture setting, taking into account Vietnamese people's habits and preferences, with the goal of supplying and improving cancer patients' food intake.

Therapeutic techniques targeted at prolonging 'disease-tolerant' states are routinely researched in infectious diseases but rarely in cancer. 'Cancer tolerance' would be connected with the preservation of muscle function, an enhanced quality of life, and an increased ability to withstand chemotherapy. Providing anabolic support to muscle tissue appears to be a potential technique for increasing patients' ability to engage in physical activity and, as a result, improving tolerance to cancer and chemotherapy. Nutritional care is provided to patients who have a high nutritional need on a daily basis. In sarcopenic and cachectic patient populations, specialised nutritional support with a particular nutritional composition (SNC) has been shown to induce anabolic stimulation. A unique SNC was created because it is hypothesised that combining various particular nutrients has a larger influence on muscle atrophy. This novel n-3 polyunsaturated fatty acid (PUFA) [eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA)] and leucine-enriched, high-protein (100 percent whey protein), energy-dense SNC with added vitamin D and a specific mixture of prebiotic fibres is expected to provide anabolic stimulation of muscle in cancer patients. We hypothesise that this SNC will improve muscle outcomes while leaving anti-cancer treatment untouched.

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