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Short Communication

Role of neutropenic diet in pathological stages of cancer

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1. Introduction

Staging cancer determines its growth and location in the body. The TNM system (tumor, node, metastasis) is commonly used, indicating tumor size, lymph node presence, and metastasis. Some cancers, like blood and brain cancers, use different staging systems. For example, brain cancer is graded based on factors like tumour size, location, tissue type, surgery removal likelihood, cancer spread, and potential tumor extension beyond the brain. However, primary care, medicines, diet, and thorough tests are essential for these patients. Neutropenic diets involve specific preparation, cooking, and storage of foods, eliminating raw or uncooked vegetables, fruit, meat, or unpasteurized dairy products to reduce the risk of foodborne bacterial infection. Incorrectly cleaning and preparing raw foods can spread bacteria from the gastrointestinal tract to other body parts, potentially causing infections in patients with weakened immune systems. Per this diet, patients should avoid undercooked meat, eggs, unpasteurized dairy, and uncooked fruits/vegetables, and drinking unfiltered water should be prohibited.[1] The neutropenic, sterile, low microbial, or bacterial (LBD) diet is advised for filtration or boiling for a minute. Variations include exclusively sterile diets, LBD, or changed home-based diets. A modified diet is a regular diet that omits fresh fruits and vegetables.[2] Despite lacking scientific proof, the neutropenic diet is widely used in many institutions for neutropenic non-bone marrow and bone marrow transplant patients. Surveys show that 43% of these hospitals use the diet, while 86% use it for bone marrow transplant patients. However, the timing and food choices vary between institutions. Most prohibited foods include fresh vegetables, fruits, juices, and raw eggs, with reasons for restrictions varying between hospitals.[1,2] Further, HIV and HIV along with leukemia are other major health issues for all. A review study aims to explore different diet types that can boost innate immunity in HIV-positive children who have leukemia. The research was compiled from articles published between 2000 and 2022, focusing on HIV-related leukemia, inflammatory diets, and HIV diet types.[3] Results show that micronutrient-rich, vitamin A-rich, zinc-enriched, Neutropenic, Nordic, and some traditional Asian diets are effective. The Indian diet, which includes spices, citrus fruits, vegetables, herbal tea, honey, and other traditional foods, is considered the best strategy for maintaining good health.[4] Lastly, there is a need for proper treatment by the quality care centres. These preferably oncology-specialized 5-star hospitals are NABH and other academic grades, and are duly internationally accredited.[5] Finally, the study emphasizes the significance of pathology integration in the pre-analytical phase, focusing on relevant test considerations including protocols, biopsy, biomarker testing, possible treatments, and communication with oncologists.

2. Conclusion

There are limited studies of diet and nutrition in oncology; however, some clinical trials are still showing partial proof of the significant role of diet. Staging cancer involves determining growth and location, with the TNM system being commonly used. Blood and brain cancers use different systems. Neutropenic diets reduce bacterial infections and are used for neutropenic patients. Research found that micronutrient-rich, vitamin A-rich, zinc-enriched,

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Neutropenic, Nordic, and traditional Asian diets are effective in HIV-positive children with leukemia.

3. Conflict of Interest

None

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