

A Holistic Approach to Prevention of Cancer in Elderly Population

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Madam, According to the World Health Organization, cancer is uncontrolled cell growth that can metastasize to other body parts. Cancer poses grave challenges: an estimated 19.3 million new cancer cases and about 10.0 million cancer deaths were reported worldwide in 2020. The cancer burden is expected to double by 2040, giving rise to massive monetary, social, and psychological burdens.¹ Older populations are at a greater risk of developing cancer because of immunosenescence, more longer exposure to carcinogens, and the build-up of mutations. It is estimated that more than half of cancer cases occur in people aged 65 or older.² Primary prevention of cancer when complemented by screening and efficient treatment, can remarkably decrease cancer burden.³

Recently, a randomized clinical trial conducted by the DO-HEALTH Research Group⁴ tested the individual and combined effects of high-dose vitamin D, omega-3 fatty acids, and a simple home training programme (SHTP) on the risk of invasive cancer of any origin in people aged above 70 years. A study involving 2157 healthy individuals with no major comorbidities were randomly distributed in eight groups, and each group was given a different regimen. The participants were followed for about 3 years. The results showed a significant reduction in risk when all three interventions were given (adjusted Hazard Ratio was 0.39). In other words, in this trial, the risk of developing invasive cancer was reduced by about 60% when vitamin D and omega-3 were co-administered in addition to performing a SHTP.

These interventions are known for their anti-inflammatory and anti-cancer effects, especially vitamin D. However, the combined effects are rather surprising and can prove to be

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an important prophylaxis of cancer in the elderly. In addition to having the said benefits, vitamin D, omega-3, and SHTP are cheap, easy to administer, and do not have any significant side effects. Unlike these interventions, current cancer treatment is expensive and has a spectrum of serious adverse effects. Although there is abundant literature on individual benefits on these interventions, there is very limited data on their combined effects. Therefore, it is necessary to replicate this trial with more participants for a longer period, because it can greatly reduce the cancer burden and fuel the transition from cancer treatment to cancer prevention.

Disclaimer: None.

Conflict of interest: None.

Funding disclosure: None.

DOI: <https://doi.org/10.47391/JPMA.7920>

Submission completion date: 30-08-2022

Acceptance date: 16-11-2022

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