



Effect of Fish Oil-Enriched Dietary Supplements for Pancreatic Cancer Patients

Amaia Lowe*

Department of Cancer Biology and Genetics Program, Memorial Sloan-Kettering Cancer Center, New York, USA

Opinion

T Pancreatic cancer is nearly always linked to a decrease in nutritional status. Weight loss in gastrointestinal cancer patients is frequently resistant to treatment intervention is linked to a shorter survival time and a lower mortality rate a lower quality of life. The use of traditional oral dietary supplements may be beneficial. Increase your overall nutritional intake, although this does not always result in weight loss. In terms of nutritional status, there isn't much of a benefit. As a result, it has been proposed that the Weight reduction in patients is aided by metabolic mechanisms. Cancer may also prevent the accumulation of lean tissue. When pro-inflammatory cytokines, such as Interleukin 6 (IL-6), are injected into animals, they can cause cachexia, and monoclonal antibodies to these cytokines can reduce the severity of cachexia in tumour-bearing mice. In pancreatic cancer patients who are losing weight, the Acute Phase Protein Response (APPR) has been linked to increased resting energy expenditure and a decrease in nutritional intake.

Furthermore, the APPR has been shown to be the greatest independent indicator of poor prognosis in pancreatic cancer patients. Pro-inflammatory cytokines, such as IL-6, are the main modulators of the APPR. Thus, there appears to be a clear connection between the production of pro-inflammatory cytokines and the development of cachexia in pancreatic cancer patients. Previous attempts to modulate the inflammatory response in cancer patients in order to improve nutritional status have yielded encouraging results. Eicosapentaenoic Acid (EPA) and Docosahexaenoic Acid (DHA), both n-3 polyunsaturated fatty acids, have been demonstrated to inhibit endotoxin-induced production of pro-inflammatory cytokines such

as IL-1 and Tumour Necrosis Factor (TNF) by healthy volunteers' Peripheral Blood Mononuclear Cells (PBMC).

The generation of IL-6 by PBMCs was suppressed in studies of weight-losing pancreatic cancer patients who received high-purity EPA. In the chemoresistant mouse MAC16 colon adenocarcinoma model, EPA has been demonstrated to have anti-tumor and anti-cachectic properties as well as inhibiting the development of human pancreatic cancer cell lines *in vitro*. The generation of a proteolysis triggering factor by cancer cells has been linked to cachexia in this animal model, and a similar factor has been identified in tumor-bearing people with cachexia. It's possible that EPA works by blocking this factor's end-organ effects.

Administration of a mixed fish oil mixture has previously been reported to be effective. As well as a pure EPA preparation in individuals with unrespectable pancreatic cancer, weight stabilisation is important. Clearly, in order to establish a foundation, new tissue is broken down, resulting in a rise in body weight. It is necessary to ingest macronutrients. The goal of this trial was to see if supplementing oral calories and protein with fish oil may help people lose weight. In individuals with advanced pancreatic cancer, reversing weight loss is possible. Height, pre-illness steady weight, and weight-loss duration were all documented at the first exam. Subjects were weighed on spring balancing scales while wearing light clothes and no shoes. Jelliffe's equation was used to compute the circumference of the mid-arm muscle. Harpenden callipers were used to measure the thickness of the triceps skinfold. Three measurements were taken, with the average value being recorded.

*Corresponding author: Amaia Lowe, Department of Cancer Biology and Genetics Program, Memorial Sloan-Kettering Cancer Center, New York, USA, E-mail: lowe_a@mskcc.edu

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