

Abstract

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Lipid replacement/antioxidant therapy as an adjunct supplement to reduce the adverse effects of cancer therapy and restore mitochondrial function.

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BACKGROUND: The most common complaints of cancer patients undergoing chemo- or radiotherapy are fatigue, nausea, vomiting, malaise, diarrhea and headaches. These adverse effects are thought to be due to damage of normal tissues during the course of therapy. In addition, recent evidence indicates that fatigue is related to reduced mitochondrial function through loss of efficiency in the electron transport chain caused by membrane oxidation, and this occurs during aging, in fatiguing illnesses and in cancer patients during cytotoxic therapy.

METHODS: Lipid Replacement Therapy administered as a nutritional supplement with antioxidants can prevent oxidative membrane damage to normal tissues, restore mitochondrial and other cellular membrane functions and reduce the adverse effects of cancer therapy.

RESULTS: Recent clinical trials using patients with chronic fatigue have shown the benefit of Lipid Replacement Therapy plus antioxidants in restoring mitochondrial electron transport function and reducing moderate to severe chronic fatigue by protecting mitochondrial and other cellular membranes from oxidative and other damage.

CONCLUSION: In cancer patients a placebo-controlled, cross-over clinical trial using Lipid Replacement Therapy plus antioxidants demonstrated that the adverse effects of chemotherapy can be reduced in 57-70% of patients. Dietary use of unoxidized membrane lipids plus antioxidants is recommended for patients undergoing cancer therapy to improve quality of life but should not be taken at the same time of day as the therapy.

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