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Membrane Lipid Replacement with NTFactor Lipids® for household pets with pain, fatigue and other issues

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Abstract

NTFactor Lipids® has been used to reduce self-reported peripheral and widespread pain, fatigue, and gastrointestinal symptoms in human patients with chronic illnesses. This completely safe commercial product can be used in household pets to improve quality of life, especially in livestock and aging pets (dogs, cats).

Introduction

Membrane Lipid Replacement (MLR) using dietary NTFactor Lipids® results in the systemic replacement of damaged cellular membrane glycerolphospholipids with undamaged, unoxidized lipids to ensure the proper function of cellular membranes, including mitochondrial membranes.^{1,2} By combining the glycerolphospholipids with antioxidants, MLR supplements have proven to be effective in reducing disease-associated symptom severity, age-associated loss of function, and providing organ support.¹⁻³ The MLR supplement NTFactor Lipids® has been utilized in several clinical studies that demonstrate that it significantly reduces fatigue in patients with chronic illnesses and in aged men and women with chronic fatigue and other symptoms.⁴⁻⁷

Dietary Supplements

Dietary supplements have been used to reduce symptom severity in patients, for example in patients with fibromyalgia, chronic fatigue and other chronic conditions that have pain and/or fatigue as major symptoms.¹⁻⁷ Unfortunately, few if any, of these natural supplements have been considered effective in significantly reducing symptom severity, and in maintaining this reduction.¹² Some symptoms, such as fatigue and pain, also occur during normal aging, and they are important as secondary symptoms in many if not most chronic diseases.⁸

Using fibromyalgia patients who had been ill for periods of time greater than 6 months we previously found that fatigue was reduced significantly when patients consumed dietary NTFactor Lipids® (2-4 g per day) for 4-8 weeks.^{4,5} For example, fibromyalgia patients that were placed on 4 g of NTFactor Lipids per day showed approximately 40% reductions in fatigue after 8 weeks on NTFactor Lipids.⁵ In these studies pain and other symptoms were not recorded, but non-scientific feedback from patients in the study indicated that other symptoms (including pain reported by some patients) were also reduced along with fatigue.

Previously we found that a combination of low-dose controlled-release caffeine (184 mg per day) and 4.8 g per day of NTFactor Lipids® resulted in significant reductions in pain, fatigue, gastrointestinal and other symptoms in fibromyalgia patients within one week.⁹ This was confirmed in other case series of patients taking NTFactor Lipids® daily.¹⁰

Observations in Laboratory Animals

Laboratory animals have received NTFactor Lipids® for anti-aging and toxicity studies over their lifetimes without any evidence of toxicity or pharmacologic effects.² For example, there was no evidence of nervous system effects, such as reflexes, spasms, heart, renal or vascular function, or other functions in laboratory animals receiving lecithin glycerolphospholipids in their chow.² Seidman et al.¹¹ examined the protective effects of feeding rats NTFactor Lipids® on hearing loss and other effects associated with aging. Older rats (n=344) aged 18-20 months were fed NTFactor Lipids® or placebo for 6 months, and their auditory and brainstem responses were examined before and during dietary supplementation. They were also studied for mitochondrial membrane trans-membrane potential and mDNA deletions every two months. In this study after 4 months there significant differences in the NTFactor Lipids® and placebo groups of animals, such as in preservations of hearing thresholds at various frequencies, maintenance of mitochondrial inner membrane trans-membrane potential and deletions in specific mDNA sequences in the aged rats.¹¹ Thus the lecithin glycerolphospholipids in their chow had a very positive effect on aging-associated losses in function in these lab animals.

Observations in pets

Although there have been no detailed studies of the anti-aging effects of NTFactor Lipids® on household pets (dogs and cats), there have been some non-scientific observations. Feeding aged dogs (>8 years) and cats (>10 years) at approximate daily doses of 0.5 g/25 lbs (dogs) and 0.5 g/10 lbs (cats) for at least 2 months resulted in better hair coats and more energy, activity and vitality. These results need to be duplicated in organized animal trials over longer time periods.

Discussion

Oral glycerolphospholipids have been used successfully in clinical studies in humans to reduce symptom severity.¹⁻⁷ The supplement NTFactor Lipids® with fructooligosacchahrides (to protect the phospholipids from disruption, degradation and oxidation in the gut) and antioxidants have reduced significantly symptom severity in chronic illness patients (see reviews¹⁻³). The membrane glycerolphospholipids are quickly and almost completely absorbed and transported into tissues and cells without excessive oxidative damage.² There the undamaged, replacement membrane phospholipids can exchange with damaged membrane phospholipids, resulting in replacement of the damaged molecules. The NTFactor Lipids® glycerolphospholipids also provide important precursors for specific membrane molecules, such as mitochondrial cardiolipin.² Since the basic physiology of animals and humans is essentially the same, we can expect similar positive results with NTFactor Lipids® glycerolphospholipids throughout the animal kingdom.

Oral membrane replacement supplements have been designed to reduce fatigue and protect cellular and especially mitochondrial membranes from damage.¹⁻⁵ By combining NTFactor Lipids[®] with vitamins and minerals (Propax[™] with NTFactor Lipids[®]) cancer patients show reductions in the adverse effects of cancer therapy, such as chemotherapy-induced fatigue, nausea, vomiting and other side effects.¹²

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