Mini Review

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General Theory of Inflammation. Concise Summary of Basic Principles

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ABSTRACT

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Claim

Patient self-administration of hydrocortisone with stress management promises to safely eliminate chronic inflammation from within all diseases of inflammation.

Base Concepts

Chronic inflammation is a disease unto itself for when active inflammation within the diseases of inflammation is completely arrested, symptoms disappear to only leave behind permanent damage such as destroyed joints [1]. Chronic inflammation is a house with many rooms. When long-term, destructive inflammation is localized, differing symptom sets are manifested depending on location. If inflammation resides in the heart, it is carditis; in the muscles, myositis; in the lungs, asthma; and in the brain, Parkinson's disease, dementia, or multiple sclerosis. When long-term, destructive inflammation exists within multiple body areas simultaneously, the resultant symptoms are composites with diagnoses such as rheumatoid arthritis, osteoarthritis, and fibromyalgia.

Cause of Chronic Inflammation

The cause of long-term, destructive inflammation is a defective inflammation control system within the body [2]. When defective, short-term, beneficial inflammation evolves into long-term, destructive inflammation. The inflammation control system is the hyopthalamic-pituitary-adrenal (HPA) axis. Upon activation by a stress, this axis creates a time-delayed, 6-fold+ increased concentration hydrocortisone surge in the blood that terminates the activating, short-term, beneficial inflammation at its due time. As the hydrocortisone pulse of the HPA axis weakens because of age, injury, and/or heredity, short- term, beneficial inflammation evolves into long-term, destructive inflammation. As adrenal hydrocortisone production deteriorates further to being unable to sustain the blood concentration required to maintain homeostasis, both diseases of inflammation and Addison's disease threaten. Hydrocortisone, the inflammation-arresting agent of the inflammation control system, is the only body substance produced in adequate amounts capable of terminating inflammation. As a hormone, it can have no side effects when within its physiological concentrations in the blood. However, when administered to attain pharmacological concentrations in the blood for long periods, overdose hydrocortisone adverse effects can and do occur.

Solution to Chronic Inflammation

The solution to long-term, destructive inflammation is manually restoring the weakening hydrocortisone surge of the HPA axis to its optimum size [3]. Patient self-administration of hydrocortisone, the Addison's disease treatment recommended

by the United States Food and Drug Aministration, is appropriate for restoring the hydrocortisone surge. Only patients know when the surge needing restoration occurs, that is, during bad days when short- term, beneficial inflammation is evolving into long-term, destructive inflammation. An initial induction period of daily hydrocortisone is necessary for patients to use self-administration of hydrocortisone effectively. This period enables patients to distinguish bad days when supplemental hydrocortisone is to be ingested from good days. A 3-week induction period of using daily pharmacologic hydrocortisone dosages related to body weight, sex, disease intensity, and age reduces severe daily symptoms to where cycling between bad and good days occurs.

For optimum success of patient self-administration of hydrocortisone, patients must be taught to minimize stresses that cause and exacerbate inflammation. Stresses as allergies [4], injuries, infections [5], and emotional traumas can be minimized by standard methodologies. Food allergies, over exercise, and infections more frequently counteract the anti-inflammatory effect of hydrocortisone administration to result in a less than optimum response. After induction period implementation and stress minimization, patients must be taught the implementation principles of hydrocortisone self-administration to maintain the inflammation control achieved during the induction period together with the safe limits of monthly hydrocortisone use to avoid hydrocortisone overdose effects [6].

The Ultimate Test

When patient self-administration of hydrocortisone with stress management was applied to 2,428 patients with 38 chronic inflammation diseases, symptom control exceeded standard treatment efficacies two-fold [1]. The treatment efficacies and response rates were the same within experimental error for the diseases of the study. One of 6 lost most or all symptoms in one day, 4 of 6 more lost the symptoms within 3 weeks, and the remaining 1 of 6 failed to respond to hydrocortisone. When patients used hydrocortisone tablets for pulse restoration on the bad days and not on the good days, so little hydrocortisone was ingested that overdose adverse effects were avoided. Only the missing hydrocortisone was replaced. The average daily consumption of hydrocortisone using patient self-administration of hydrocortisone was 12 mg per day. This is less than the minimum 15 mg daily hydrocortisone use that causes overdose symptoms in the most sensitive patients [6]. Consequently, patient self-administration of hydrocortisone with stress management was shortened to microdose therapy since patient's average using less hydrocortisone per day than the 20 to 52 mg per day dose range of low-dose hydrocortisone. The hydrocortisone induction period should be repeated at 6-month intervals to arrest long-term, invisible-nevertheless-destructive, inflammation.

Acknowledgement

Microdose therapy was created to solve Helen's intractable rheumatoid arthritis. In 1984, she became asymptomatic using the therapy and remained as such with no significant adverse reactions until her passing in 2017. Her story is portrayed in the 1996 book entitled Arthritis. The Simple Solution available from Amazon.

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