

INFLAM-AGING: Causative in All Your Patients' Symptoms

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Anti-aging nutrition? Does that sound intriguing? The science of medical Gerontology reveals that aging processes can be controlled with very specific nutrition supplementation. Would you seize the opportunity to limit the rate of aging degenerative changes? Or, do you prefer allopathically treating each Age-Related Disease as a distinctly separate entity? There is a huge difference in the two approaches.

Essentially we are asking would you rather treat the disease, or treat the patient? Would you rather address the symptoms as they manifest, or reach deeply into the core of the pathophysiology?

Consider this list:

- Musculoskeletal Inflammation
- Chronic Fatigue
- Elevated Cholesterol and Triglycerides
- Type II Diabetes
- Arteriosclerosis
- High Blood Pressure
- Neurodegenerative diseases
- Autoimmune diseases
- Neuropathy
- Muscular Weakness
- Osteoporosis
- Cataracts

You easily recognize these as the conditions you see in your patients day in and day out. Are you desperately seeking a “remedy” for each item on the list? Or, does it make more sense to treat the underlying causes? Why pursue a frustrating, tedious, and expensive exercise in futility? For any of the above patho-physiologies you can sell your patients the current Flavor of the Month supplement, and at best achieve limited, temporary symptomatic relief. But, why deal with repeated disappointment, when the research literature shows clearly that you have the capability of addressing each pathological process at the tissue level? (1, 2, 3, 9, 10, 14, 17, 18, 19, 20, 23)

For decades, medical research pursued its quest for the ultimate - a Universal Theory of Disease, and more specifically, Gerontologists dreamed of a Universal Theory of Aging. The scientific breakthrough occurred a couple of decades ago with the understanding that all the Age-Related Diseases have an inflammatory component. Gerontologists latched onto this central truth, and after spinning their wheels for a couple of decades, about 15 years ago finally found the way this concept of inflammation manifests in the “diseases of aging”. (4, 9, 10, 22, 23)

Furthermore, Gerontology identified two somewhat autonomous aging pathways, each inflammatory in nature, but inflammatory by different mechanisms. The term “INFLAM-AGING” began to appear in the research literature. (5)

The good news for you as a clinician is that the many and varied manifestations of Age-Related Disease are the product of the combined effects of these two aging pathways. So, think

about this ... the twelve patho-physiologies listed above are as different as could be, yet they all share two fundamental age-accelerating processes. Consider two of your patients, one with a painful unstable knee, and one with elevated cholesterol. Who would think there is a connection between those two conditions? Yet, Gerontologists now show us that the same two fundamental aging pathways drive both conditions. (2, 4, 5, 6, 7, 14, 15, 20, 24, 25)

Though Age-Related Diseases may not fully manifest until we reach the age of 50 or more (although it is increasingly common to see the tell-tale signs in people in their 40s), their pathogenic basis has its roots much earlier in life — even in childhood. Why does one patient show INFLAM-AGING in his knee, while another cannot seem to get her cholesterol under control? The concept here is easy to grasp. “Every chain breaks at its weakest link.” Whatever genetic predispositions an individual may have, plus whatever environmental stresses were encountered during gestation, during the birth process, during infancy, or childhood, or adolescence — predispose the immune system, the nervous system, and the endocrine system to deficiencies in their adaptative capacity. (5, 10, 18, 19, 20, 22, 24)

Does it surprise you to realize the “cause of the causes” of Age-Related Disease is the process of aging itself?

What are these two aging pathways that define INFLAM-AGING? One is driven by Oxidative Stress, and the other reflects the damage from Reductive Stress. Here is a summary comparing the two that can be gleaned from the Gerontology research literature: (1, 2, 3, 5, 6, 7, 8, 11, 12, 13, 16, 21, 22, 25)

OXIDATIVE STRESS

REDUCTIVE STRESS

Determines Health Span

Determines Life Span

Intrudes upon cells “from the outside in”.

Alters cell function “from the inside-out”.

Driven by Oxidative Damage:

Driven by Reductive Stress:

- Unhealthy Microbiota
- Nutrient insufficiency
- High Fructose diet
- High Polyunsaturated Oils
- Sleep disturbance
- Emotional stress
- Radiation exposure
- UV & blue-green light
- Mold, & other toxins
- Reductive Stress

- Unhealthy Microbiota
- Senescent Cell formation
- SASP = cellular anabolism
- mTOR = tissue hyperplasia
- Deficient Autophagy
- Dysregulated Apoptosis
- Genetic Clock activation

Begins at the moment of conception.

Begins on the 23rd birthday.

Catabolic Patho-physiologies

Anabolic Patho-physiologies

Benefited By:

- Pre- & Pro-biotics
- Adaptogen Supplements
 - Lipoic Acid
 - Carnitine
 - Acetyl-L-Carnitine
 - Betaine
 - Carnosine
 - Coenzyme Q-10
- Antioxidant Supplements
 - Tocopherols
 - Tocotrienols
 - Coenzyme Q-10
 - Lipoic Acid
- Tissue Sulfation
- Cellular Energetics

Benefited By:

- Pre- & Pro-biotics
- Rejuvenin Supplements
 - Carnosine
 - NAC + Glycine
 - Lipoic Acid
 - Quercetin
- Anti-reductant Supplements
 - Thiosulfate
 - NAC + Glycine
 - L-Carnitine
 - Lipoic Acid
 - Selenium
- Tissue Sulfation
- Cellular Energetics

Perhaps it is time to redefine yourself, not as a Clinical Nutritionist peddling remedies for this and that condition, but rather as a Metabolic Therapist. Gerontologists have identified combinations of both antioxidant supplements and what they now define as “rejuvenins” with the power to control age-accelerating cellular oxidation and reduction processes. It is these aging pathways that determine both the location (symptoms) and rate of inflammation in each of your patients. These supplements control the dual aging mechanisms with the ideal balance of antioxidant and anti-reductant supplements, allowing you to penetrate deeply into “the cause of the causes” of IMFLAM-AGING.

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