Preventing and Removing the Accumulation of Lipofuscin: Potential Natural Therapies

Lipofuscin is the name given to finely granular yellow-brown pigment granules composed of lipid-containing residues of lysosomal digestion.

It is commonly found in the:

- liver
- kidney
- heart muscle
- retina
- adrenals
- nerve cells
- ganglion cells

The loss of mitochondrial function can cause the buildup of aging pigments known as lipofuscin. Lipofuscin builds up when a cellular “garbage-disposal system” (i.e., autophagy) breaks down. Eventually, with the decrease in autophagy and related increase in lipofuscin, there is increased oxidative stress, decreased energy production, and ultimately, cell death.

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It appears to be the product of the oxidation of unsaturated fatty acids, and may be symptomatic of membrane damage, or damage to mitochondria and lysosomes. Aside from a large lipid content, lipofuscin is known to contain sugars and metals, including mercury, aluminum, iron, copper and zinc.

Potential Natural Therapies
There are a number of natural therapies that can be used to reduce the accumulation of lipofuscin. The following natural substances have been studied for their ability to reduce lipofuscin accumulation:

- Acetyl-L-Carnitine
- Centrophenoxine
- Creatine
- DMAE
- Ginkgo Biloba
- Piracetam

Informational References:

BioFoundations – Lipopigments

Resources:

Acetyl-L-Carnitine
Centrophenoxine
Creatine
DMAE
Ginkgo Biloba
Piracetam

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