ROAD TO 30 YEARS OF INNOVATION · SABINSA ·

Curcumin C3 Complex®
Modifies Lipids in Metabolic Syndrome

THEORY:

METABOLIC SYNDROME AFFECTS millions of people globally. It involves simultaneous occurrence of several risk factors, such as hypertension, hyperglycemia, abdominal obesity and atherogenic dyslipidemia. Since there is a cluster of risk factors, the benefits of targeted drugs (such as statins used for the management of dyslipidemia) are limited. However, there may be a role for natural alternatives like curcumin with multifactorial effects, including activity against inflammation, oxidative stress, hypertension, hyperglycemia and insulin resistance.

PARAMETERS:

IN A RANDOMIZED, double-blind, placebo-controlled study in 100 patients diagnosed with metabolic syndrome on standard treatment, half the participants received 1,000 mg/d of Sabinsa's Curcumin C3 Complex® in combination with natural bioavailability enhancer Bioperine® (a standardized extract of black pepper from Sabinsa) and the other half received placebo for eight weeks. Serum concentrations of total cholesterol, low-density lipoprotein (LDL) cholesterol, high-density lipoprotein (HDL) cholesterol, triglycerides, small dense LDL (sdLDL) cholesterol, lipoprotein(a) [Lp(a)] and non-HDL cholesterol were determined at baseline and at the end of the eight-week treatment period.

OUTCOME:

CURCUMINOIDS (as Curcumin C3 Complex) were found to be **more effective** than placebo in reducing

- serum LDL cholesterol
- non-HDL cholesterol
- total cholesterol
- triglycerides
- Lp(a)

The intervention also helped to **ELEVATE HDL CONCENTRATIONS**.

THE EFFECTS OF CURCUMINOIDS on non-HDL cholesterol, total cholesterol, triglycerides and Lp(a) remained significant after adjustment for baseline values of lipids and body mass index (BMI).

IMPACT:

Metabolic syndrome affects about 23 percent of U.S. adults and places them at higher risk of cardiovascular disease (CVD), diabetes, stroke and diseases related to fatty buildups in artery walls.[1] As increasing evidence suggests a relationship between metabolic syndrome and mortality,[2] solutions are needed to help target common risk factors such as high levels of triglycerides and "bad" (LDL) cholesterol. A natural option such as curcuminoids with enhanced bioavailability could provide an adjunctive controlling influence on lipid profile of subjects with metabolic syndrome on standard treatment.

1. American Heart Association. 2016. heart.org

2. *Medicine*. 2017;96(45):e8491.

Source: Panahi Y et al. "Lipid-modifying effects of adjunctive therapy with curcuminoids-piperine combination in patients with metabolic syndrome: results of a randomized controlled trial." *Complement Ther Med.* 2014;22(5):851-7. DOI: 10.1016/j.ctim.2014.07.006.

Infographic brought to you by SABINSA CORPORATION