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SIGNIFICANT DECREASE IN HOMOCYSTEINE AND ox-LDL IN HEALTHY HEAVY SMOKERS AFTER NUTRACEUTICAL SUPPLEMENTATION

Fabrizia **Bamonti**¹, Cristina Novembrino¹, Luisella Vigna², Rachele De Giuseppe¹, Federica de Liso¹, Marco Pellegatta², Dario Gregori³, Cinzia Della Noce⁴ and Roberto Accinni⁴

¹ Scienze Mediche, University of Milan, Fondazione IRCCS O.M.P.Ma.R.E., Milan, Italy

² Dip Medicina Preventiva Clinica e del Lavoro, U.O. Medicina del Lavoro I, Fondazione IRCCS O.M.P.Ma.R.E., Milan, Italy

³ Dipartimento di Medicina Ambientale e Sanità pubblica, University of Padova, Padua, Italy

⁴ Ist. Fisiologia Clinica, CNR, Milan, Italy

ABSTRACT

Nutraceuticals may attenuate some negative effects of cigarette smoking. We evaluated effects of two different encapsulated formulas, consisting primarily of mixed juice powder concentrate (Juice Plus+®), in a randomized placebo controlled, double-blind study on 101 heavy smokers (>20 cigarettes/d, duration ≥10y, median age 47; 41–57 y, 63 M, mean capsule compliance 85.2%). Smokers were divided into 3 groups: A-placebo, B-fruit/vegetable, C-fruit/vegetable/berry. Serum and erythrocyte folate (s-fol and ery-fol, respectively) and total homocysteine (tHcy) concentrations were measured before and after 3-m supplementation. In 75 (46 M) compliant (>95%) subjects, lipid panel parameters (total Cholesterol, tChol; LDL-c; oxidized-LDL, ox-LDL) were evaluated. Median values were compared (t-test for paired data); data are reported as mean delta values (± standard deviation). Intervention with both nutraceutical formulations resulted in reduction in ox-LDL and tHcy compared to placebo.

Support: NSA, Collierville, TN

	A (placebo)	B (fruit/veg)	C (fruit/veg/berry)
tChol (mg/dL)	9.3 (±18.4)	-11.6 (±22.9)*	-6.3 (±25.5)*
LDL-c (mg/dL)	16.8 (±17.6)	-8.1 (±17.9)*	-0.8 (±20.5)*
ox-LDL (U/L)	-2.3 (±11.3)	-13.8 (±12.5)*	-11.2 (±12.2)*
tHcy (µM)	-0.14 (±1.4)	-2.38 (±2.3)#	-3.20 (±5.2)#
s-fol (nM)	2.8 (±5.5)	13.7 (±9.9)#	16.6 (±9)#
ery-fol (nM)	194 (±178.3)	488.2 (±349)#	646.3 (±362.1)#

* p<0.05 vs placebo;

p<0.001 vs placebo

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