

total (b) cysteine ($p = 0.001$) and VitE/cholesterol ($p = 0.0001$). At T2 lower values of oxidant total (p) cysteine (T2 vs all $p < 0.05$), HDL/cholesterol (T2 vs all $p < 0.0001$) and LDL (T2 vs all $p < 0.01$) were found; conversely, antioxidants total and reduced (p) glutathione (T2 vs T0 $p = 0.005$ and T2 vs all, $p < 0.05$, respectively), VitE/cholesterol (T2 vs all, $p < 0.0001$) and HDL (T2 vs all, $p < 0.0001$) increased. No significant changes were found for other parameters.

Conclusions: Four weeks of FerroSuper improved the redox pattern as demonstrated by higher content of antioxidants bcysteine and VitE/ch. Additionally, the synergic action of the composition, positively affects homocysteine levels. Prolonged periods greatly improved the redox state; indeed, a beneficial redistribution of cholesterol among lipoprotein fractions, with a significant increase in HDL and a reduction in LDL was found.

PO20-618 EFFECTIVENESS OF A DIETETIC SUPPLEMENTATION IN IMPROVING LIPID PANEL IN DYSLIPIDEMIC SUBJECTS

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Background and Aim: Hyperlipidemia is a well-known risk factor for atherosclerosis. Statins are widely used to treat hyperlipidemic patients. However, the high cost of statin treatment, in addition to possible side effects such as liver abnormalities, may limit their widespread use. Aim of the study, was to evaluate the hypocholesterolemic properties of a natural product (policosanol, 4 mg/die, red yeast rice, 3.5 mg/die and oryzanol, 30 mg/die namely: COLESAN) among a moderately dyslipidemic population.

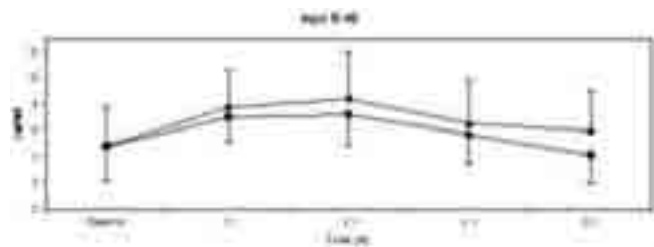
Methods: The effectiveness in improving lipid panel of encapsulated COLESAN was evaluated in 47 subjects (27 males 50 ± 9 years) with moderate dyslipidemia. Patients were randomly assigned to group A ($n = 20$), supplemented with COLESAN A (1cp/die, placebo) and group B ($n = 27$), supplemented with COLESAN B (1cp/die, active) and underwent peripheral venous blood samples for total-cholesterol (TC), low density-lipoproteins (LDL-C) and tryglycerides (TG) evaluation at baseline (T0) and after 8 (T1) and 12 (T2) weeks of supplementation.

Results: No significant differences in age and sex were found between groups. Similarly there were no differences in lipid panel at T0. The dynamic (from T0 to T2) of lipid panel measurements among patients' groups showed that TC decreased over time more significantly in B compared with A ($p < 0.001$), as well as LDL-C ($p < 0.001$), and TG ($p < 0.01$).

Conclusions: COLESAN supplementation evidently improved the lipoprotein pattern of mildly hypercholesterolemic patients. These results suggested that COLESAN may be a new tool for prevention and treatment of atherosclerosis in mild hypercholesterolemia.

PO20-619 REDUCED POSTPRANDIAL CONCENTRATION OF APOLIPOPROTEIN B-48 WITH CAMELINA OIL

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Background: Apolipoprotein (apo) B-48 is specifically associated with the intestinal triglyceride-rich lipoproteins. Therefore, measuring plasma concentration of apo B-48 allows determination of the time course of intestinal contribution to alimentary lipemia.

Methods: Fifteen young healthy adults (6 men, 9 women; s-cholesterol

< 6 mmol/l and s-triglyceride < 1.5 mmol/l) ate twice a standard hamburger meal with olive (OL) and with camelina oil (CA) in a double-blind and randomized design. Two hours before the hamburger meal the subjects got a standardized light breakfast, but there after only water was allowed in addition to the test meal until the last serum sample was taken. Venous blood samples were taken twice before the hamburger meal and 1, 2, 4 and 6 hours after the meal.

Results: In the camelina trial, the area under curve of apo B-48 was 53% smaller than in the olive trial ($p < 0.05$). The peak value was reached in both trials at 2 hours after the meal, and 6 hours after the meal apo B-48 was 30% lower in the camelina trial than in the olive trial ($p < 0.05$).

Conclusions: The supplementation of camelina oil reduced the hamburger meal induced increase of apolipoprotein B-48. This suggests that fatty acids from camelina oil, including alpha linolenic acid (C18:3 omega-3), eicosenoic acid (C20:1) and linoleic acid (C18:2 omega-6), taken with fatty meal might have beneficial effects on postprandial lipemia.

PO20-620 EFFECT OF LONG-CHAIN OMEGA-3 POLYUNSATURATED FATTY ACIDS ON POSTPRANDIAL SERUM TRIGLYCERIDES IN MALE SMOKERS

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Background and Aims: Cigarette smoking increases serum triglycerides, which in turn are strongly associated with cardiovascular risk. No data on the effect of long-chain omega-3 polyunsaturated fatty acids on postprandial serum triglycerides in male smokers are available.

Methods: We therefore examined changes in fasting and postprandial triglycerides in 8 male smokers during supplementation of 3.0 g long-chain omega-3 polyunsaturated fatty acids per day over 8 weeks. Serum triglycerides were measured in the fasting state and 2, 4, 6, and 8 hours after a high fat meal at baseline and after 8 weeks. Postprandial triglyceridemia was calculated as the incremental area under the triglyceride curve.

Results: Postprandial triglyceridemia was significantly reduced by 25% ($2476 \text{ mg}^* \text{h/dl}$ after 8 weeks vs. $3280 \text{ mg}^* \text{h/dl}$ at baseline; $p = 0.025$) after 8 weeks of long-chain omega-3 polyunsaturated fatty acids supplementation. Also fasting triglycerides tended to decrease following the omega-3 polyunsaturated fatty acid supplementation (154 mg after 8 weeks vs. 219 mg at baseline; $p = 0.080$).

Conclusion: Our data for the first time show that supplementation of omega-3 polyunsaturated fatty acids significantly reduces postprandial triglyceridemia in male smokers. Omega-3 polyunsaturated fatty acids thus may be a promising treatment option to reduce cardiovascular risk in these high-risk patients.

PO20-621 DIETARY LOW SODIUM INCREASES PLASMA INFLAMMATORY MARKERS IN HYPERTENSIVE PATIENTS

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Background and Aims: because dietary salt restriction modifies the plasma lipoprotein profile and insulin sensitivity in hypertensive and normotensive subjects that contribute to atherosclerosis development, we investigated the effects of a low salt diet (LSD) on the inflammatory markers in hypertensive patients.

Methods: Untreated non obese, normolipidemic and moderately hypertensive adult patients ($\text{BP} \leq 179/109 \text{ mmHg}$) ($n=41$; 15 M/26 F; age 53.5 ± 8.5) were submitted to rigidly controlled sodium diets (mmol/d) where the initial week on normal sodium (NSD = 160) was followed by 3 weeks on a low sodium (LSD = 60); at the end of each period physical examination and 24h ambulatory blood pressure were carried out together with 12h fasting blood chemistry and 24h urinary sodium measurements.

Results: as compared to NSD, LSD reduced the mean 24h SBP and DBP, raised the plasma aldosterone and renin activities, serum high-sensitivity C reactive protein (88%), TNF- α (24%) and IL-6 (19%); fasting triglycerides