

## 84. STUDY OF THE EFFECTS OF MONACOLIN K ON HYPERLIPIDEMIC PATIENTS

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**Background:** Monocolina K is a fermented product of rice and red yeast (RYR) (*Monascus purpureus*) and has been used by the Chinese for many centuries as a food preservative and for its medicinal properties. It is a potent inhibitor of HMG-CoA reductase and is known as substance, which lower serum cholesterol levels.

**Aim:** To investigate the hipolipimiant effect of Monocolina K in patient with hipercolesterolemia with moderate cardiovascular SCORE risk.

**Methods:** A total of 30 patients (mean age:  $47,8 \pm 1,8$  years, 52 % males) who had a total cholesterol level of  $> 5,2$  mmol/L were included in the study and allocated to receive a “No – Colest” which contain 10 mg of Monocolina K for 6 weeks. The 10-years risk of cardiovascular events was calculated according to cardiovascular risk SCORE before and after the treatment. As a primary outcome measure, we compared the before-after difference in lipid levels for patients included in the study.

**Results:** LDL (low density lipoprotein) cholesterol was lowered from  $4,19 \pm 0,22$  to  $3,51 \pm 0,14$  mmol/L.

(-16,2%) ( $p < 0,001$ ), total cholesterol from  $6,46 \pm 0,27$  to  $5,28 \pm 0,16$  mmol/L (-18,3%) ( $p < 0,001$ ), the TG (triglycerides) was reduced from  $1,89 \pm 0,27$  to  $1,61 \pm 0,14$  mmol/L (-14,8%) ( $p < 0,05$ ), and HDL (high density lipoprotein) have also been lowered from  $1,35 \pm 0,05$  to  $1,26 \pm 0,02$  mmol/L

(-6,7%) ( $p > 0,05$ ) in the intervention group. Any side effects haven't been noticed.

The lipid lowering effect resulted in reducing of cardiovascular risk as measured with SCORE chart, that changed from 3,85% to 2,5%.

**Conclusions:** The RYR formulation under study was well tolerated and effective in lowering LDL, total cholesterol and TG as well as the cardiovascular risk in this study population.

Trial registration: Clinicaltrials.gov, nr: NCT01558050

**Keywords:** Cardiovascular prevention, Statins, Red yeast rice(RYR), Cholesterol