**DOES CYSTATIN SN INFLUENCE ON CYSTATIN C LEVEL IN ISCHEMIA AND PREVIOUS MYOCARDIAL INFARCTION?**

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*Objectives*: To investigate whether patients with ischemic heart disease and previous myocardial infarction (MI) display altered serum cystatin C/cystatin SN ratio.

*Background*: Cystatin C, the extracellular inhibitor of cysteine proteases with protective role in vascular remodeling, was recently suggested as a candidate biomarker in CV pathology, but cystatin SN belonging to cystatin C1 superfamily, can neutralize the cystatin C inhibition of cathepsin B in circulating fluids.

*Methods*: 34 male patients (61.8 ± 7.3 years) with MI, treated by statins, were enrolled in a study from the Outpatient Clinic N 1 of Novosibirsk. The control group consisted of 25 healthy persons (50-65 years old). Serum CRP-hs, Cystatin C (immunoturbidimetric method), Cystatin SN (CST1) by ELISA kits (Cusabio, China) were assayed.

*Results*: In persons, aged 50-65, an elevation in serum cystatin SN (3.90±0.45 versus control 2.43± 0.20 ng/ml, p<0.001) and increased cystatin C (1.11± 0.23 mg/L, p< 0.01) was shown versus healthy persons, aged 20-40 years. Statin treatment in patients with ischemia and previous MI normalized dyslipidemia, however increased CRP-hs (p<0.001) as well as increased cystatin C level C (2.05 ± 0.21 mg/L, p < 0.001) vs the control (aged 50-65) were still noted, but serum cystatin SN level decreased.

*Conclusions:* Decreased cystatin SN level in patients with ischemia and MI can influence on inhibition in cystatin C/cathepsin B, followed by changes in cystatin C concentration in circulating blood.