Results The demographic information for 132 subjects showed that subjects with CAD tended to have more unfavourable lipoprotein variables. Genotype distributions at both sites were different between the CAD and control groups. The apo E gene alleles were associated with the plasma levels of lipids and lipoproteins (all $p<0.05$); The control group had higher apo E $ε2$ frequencies than the CAD group (p<0.001) and $ε2$ was significantly correlated with occurrence of CAD (p<0.001).

Conclusion The results suggest that the apo E gene polymorphism do have influence circulating levels of lipids and lipoproteins and that individuals with apo E $ε2$ are likely to have a reduced risk of developing CAD in northern Chinese.

**e0302 EFFECTS OF XUEZHIKANG ON BLOOD LIPIDS AND THE LEVELS OF PLASMA ENDOTHELINS, THROMBOXANE B2, 6-KETO-PGF1A IN PATIENTS WITH PRIMARY HYPERLIPIDAEMIA**

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Objective To observe the effects of Xuezhikang on blood lipids and the levels of plasma endothelins, thromboxane B2, 6-keto-PGFia in patients with primary hyperlipidaemia.

Methods 120 patients with primary hyperlipidaemia were enrolled in this study, 82 males and 38 females, age 36–74 years old, average ages (55.9±9) years old. 12 weeks after taking Xuezhikang, the clinical effect and the effect on the level of plasma endothelins, thromboxane B2, 6-Keto-PGFia were compared before and after the treatment, and the relation between blood lipids and ratio of plasma endothelins, thromboxane B2 to 6-Keto-PGFia were analysed.

Results 12 weeks after treatment, the level of TC, cholesterol (TC), low density lipoprotein cholesterol (LDL-C) and apoB100 decreased sharply ($p<0.05–0.001$); the level of serum high density lipoprotein cholesterol (HDL-C) elevated ($p<0.05$); ratio of plasma endothelins decreased sharply ($p<0.001$); rate value of thromboxane B2 to 6-Keto-PGFia before treatment was higher than health people but lower after treatment ($p<0.01$). There were positive correlations between the decreased TC, TG, LDL-C and decreased ET-1, the ratio TXB2/6-keto-PGFia ($r=0.832–0.963$, $p<0.01–0.001$). The same positive correlation was found between the decreased ET-1 and the ratio of TXB2/6-keto-PGFia ($r=0.987$, $p<0.001$).

Conclusions Plasma endothelins level and ratio of thromboxane B2 to 6-Keto-PGFia increased in the patients with primary hyperlipidaemia. Xuezhikang not only effectively adjusted blood lipids level but also reduced plasma endothelins level and ratio of thromboxane B2 to 6-Keto-PGFia.

**e0304 LONG-TERM CORONARY HEART DISEASE RISK ASSOCIATED WITH VERY-LOW-DENSITY LIPOPROTEIN CHOLESTEROL IN CHINESE: THE RESULTS OF A 15-YEAR CHINESE MULTI-PROVINCIAL COHORT STUDY (CMCS)**

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Aims Few studies have examined very-low-density lipoprotein (VLDL) cholesterol as an independent risk factor of coronary heart disease (CHD) or its combined effects with coexisting cardiac risk factors. The current study examined the association between VLDL cholesterol and the risk of future CHD events.

Methods and results This study reports the association of VLDL cholesterol level and long-term CHD risk, as well as the combined effects of VLDL cholesterol and LDL cholesterol with other cardiovascular disease (CVD) risk factors. The cohort comprises 30,578 participants aged 35–64 years from 11 Chinese provinces. All participants were followed up annually until 2007. We found 20% of the sample population had elevated VLDL cholesterol ≥30 mg/dl. Elevated VLDL cholesterol levels were found to increase CHD risk by 2.19–3.36 fold in people with LDL cholesterol within the normal range and presenting no other major risk factors. This effect was exacerbated in those with elevated LDL cholesterol levels, and further increased CHD risk in those displaying three or more risk factors. The population-attributable risk proportion (PAR%) of CHD associated with VLDL cholesterol was calculated to be 17.5%, higher than that associated with LDL cholesterol alone.

Conclusions In a large Chinese cohort, elevated VLDL cholesterol was found to be significantly associated with elevated CHD risk, similar to that observed with LDL cholesterol. CHD risk was further