GW25-e3273
Persistent lipid abnormalities in statin-treated patients with coronary artery disease in China: part of the Dyslipidemia International Study
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Objectives: To evaluate the prevalence of persistent lipid abnormalities and statin use in Chinese patients with coronary artery disease.

Methods: This cross-sectional observational study consecutively enrolled 9420 out-patients with coronary artery disease in China. ESC/CEAS Guidelines for the management of dyslipidemia and Chinese guidelines on prevention and treatment of dyslipidemia in adults were used to compare the control rate of low density lipoprotein cholesterol, high density lipoprotein cholesterol and triglyceride.

Results: Among the 9420 participants, 33.6% was diagnosed as diabetes mellitus. The percentage of patients with not-at-goal LDL cholesterol was significantly lower in patients with diabetes than those without diabetes (72.7% vs 73.2%, P<0.001). The corresponding values for HDL-C and TG were 42.9% vs 34.2% (P<0.001) and 40.6% vs 35.2% (P<0.001), respectively. Only about 10% patients had optimal LDL-C, HDL-C and TG. Compared with patients without DM, patients with DM were more likely to have mixed dyslipidemia. Atovasartan (47.0%) and simvastatin (34.4%) were the two most frequently used statin and the average statin dosage was 29.09 mg/d (simvastatin equivalent). Drug combination with statin to modulate lipid was only 3%.

Conclusions: Although international guideline highly recommends intensive lipid modification in patients with coronary artery disease, persistent dyslipidemia was still prevailing in China, even with statin treatment.

GW25-e0273
To dynamically observe a severe familial hypercholesterolemia child with seven-year follow up in China: a call for action
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Objectives: Familial hypercholesterolemia (FH) is a severe autosomal codominant disorder that is characterized by an elevated concentration of low-density lipoprotein cholesterol (LDL-C) and a high prevalence of premature coronary heart disease. We report clinical cardiovascular data from one case of homozygous FH in China after a seven-year study.

Methods: We obtained 50 FH patients with homozygous phenotypes who were admitted to Anzhen Hospital between 2005 and 2007 and selected one patient who was diagnosed with severe hyperlipidemia with early symptoms of cardiovascular disease. After diagnosis of FH, we performed exon capture screening methods by using a gene capture chip to genetic analysis and given cholesterol-lowering drugs to treat the patient. Follow-up clinical data were collected over seven years.

Results: Genetic analysis confirmed the diagnosis of compound heterozygous FH. The patient had mutations in exon 2 Q12X, exon 6 N296T, and exon 6 892delA which may cause severe loss of LDLR function, including endocytosis and degradation in the LDL-R gene. Although the patient’s TC and LDL-C concentrations were reduced by 28% and 6%, respectively, with intensive administration of cholesterol-lowering drugs (1mg atorvastatin, 5mg ezetimibe plus 0.5mg probucol per day), both levels remained higher than their target values. Clinical imaging data collected over seven years showed that the left chamber of the patient’s heart was persistently dilated and with mitral insufficiency (from mild to severe between 2007 and 2013), myocardial ischemia due to multiple coronary artery stenoses, and multivessel plaque formation.

Conclusions: Based on prevalences between 1/500 and 1/2000, between 14 and 34 million individuals worldwide have FH. In China, there are approximately 2.6 million patients with FH. However, FH patients are underdiagnosed and undertreated in China because both doctors and patients lack knowledge of FH. From our case report, we can found the atherosclerosis has progress quickly in this HoFH child even if the cholesterol-lowering drugs were given. We can image that the Chinese FH population will have poor outcomes if we continue overlook this population, and this will also potentially increasing costs for the country. Therefore, we hope our report will encourage the government to devote more attention to this disease.

GW25-e2435
The relationship between breastfeeding and cardiovascular fitness in 7 to 8 years old children
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Objectives: Based on burden of disease study in Iran, cardiovascular disease is the most important cause of death and disability and proper nutrition in early life is one of important determinant of prolonged health. This study was conducted to investigate the relationship of infant feeding variables with cardiovascular fitness in 7 to 8 years old children.

Methods: In a historical cohort study, 246 children age 7 to 8 years in both sexes were selected. Children have no history of cardiovascular, renal or liver diseases. According to the health life, nutrition of children in childhood determined and categorized into three groups; children who breastfed more than 6 month, children who breastfed less than 6 month and children which was formula fed and did not breastfeeding. Cardiovascular fitness determined with a treadmill ergometry. Regression analysis in single and a 2-level linear regression models was used for examining the independent relationships of infant-feeding variables, and cardiovascular fitness.

Results: Breastfeeding more than 6 month have a significant relation with cardiovascular fitness (p< 0.001). This relation was significant also with control of confounders (birth weight, children BMI, other BMI, Physical activity, diet and fat mass).

Conclusions: Results of this study show that breastfeeding increase cardiovascular fitness in children. Cardiovascular fitness and food pattern in childhood is modifiable and attention to breastfeeding is important in children.

Metabolic Syndromes

GW25-e0873
Lipid-lowering therapy and lipid goal attainment in patients with metabolic syndrome in China: subgroup analysis of the Dyslipidemia International Study-China (DYSIS-China)
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