

二、临床篇

Effects of the C161T Polymorphism in the gene of peroxisome proliferators activated receptor gamma on Changes of Serum Lipid and apolipoprotein Ratios Induced by High-carbohydrate Diet in Healthy Youth

Mei Fan ¹, Ren Rong Gong ², Zhe Jiang ¹, Yuan Hao Li ¹, Rong Rong Zhang ¹, Ding-zhi Fang ^{1^}

1. Department of Biochemistry and Molecular Biology Laboratory, West China School of Preclinical and Forensic Medicine, Sichuan University, Chengdu 610041, China; 2. Division of Thoracic and Cardiovascular Surgery, West China Hospital, Sichuan University, Chengdu 610041, China

Objective: This study is to investigate the effects of the *C161T* polymorphism at the gene of peroxisome proliferators activated receptor gamma (*PPAR γ*) on changes of serum lipid and apolipoprotein ratios induced by a high carbohydrate (high-CHO) diet in healthy Chinese Han youth.

Methods: After feeding washout diets of 31% fat and 54% carbohydrate for 7 days, 56 health youth (22.89 ± 1.80 years old) were given high-CHO diets of 15% fat and 70% carbohydrate for 6 days. Serum triglyceride (TG), total cholesterol (TC), low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol (HDL-C), apolipoprotein (apo) AI, apoB100 at baseline, after washouout diets and high-CHO diets were measured on the 1st, the 8th and the 14th days. The ratios of TG/HDL-C, $\log(\text{TG}/\text{HDL-C})$, TC/HDL-C, LDL-C/HDL-C and apoB100/apoAI were calculated. The polymorphism of *PPAR γ C161T* were detected by PCR-RFLP method and its relationships with serum lipid and apolipoprotein ratios were analyzed.

Results: At baseline, TG/HDL-C, $\log(\text{TG}/\text{HDL-C})$, TC/HDL-C and apoB100/apoAI were significantly lower in the male subjects with the T allele than the male subjects with the CC genotype. These phenotypes were not changed after the washout and the high-CHO diet. No significant differences were found of the ratios between the female subjects with the CC genotype and the female T carriers at

baseline and after the high-CHO diet, although TG/HDL-C and $\log(\text{TG}/\text{HDL-C})$ were significantly higher in the female T carriers and the female subjects with the CC genotype. When compared with those before the high CHO diet, TC/HDL-C and LDL-C/HDL-C were significantly decreased after the high-CHO diet regardless of gender and genotype of the *PPAR γ C161T* polymorphism. TG/HDL-C and $\log(\text{TG}/\text{HDL-C})$ were significantly increased in females with the CC genotype, and apoB100/apoAI was significantly decreased in the male T carriers.

Conclusions: The results suggests that the T allele of the *PPAR γ C161T* polymorphism can inhibit the increase of TG/HDL-C and $\log(\text{TG}/\text{HDL-C})$ induced by the high-CHO diet in female youth, and its interaction with the diet may decrease apoB100/apoAI in healthy male youth.

Name: 樊梅 TEL: 13684001589

Address: 四川省成都市人民南路三段 17 号四川大学华西校区生化教研室 Code: 610041

冠心病血管重建患者的代谢性危险因素特征分析

包柄楠 孙秀芹 赵怡 陶红 周迎生

首都医科大学附属北京安贞医院内分泌科

目的: 探讨冠心病血管重建患者代谢性危险因素特征。

方法: 对 370 例行冠状动脉造影的住院患者, 根据年龄分为中青年组($n=230$ 例) 和老年组($n=140$ 例), 比较两组临床资料的特点。两组根据不同血管重建方式分为对照组、经皮冠状动脉介入 (PCI) 和冠状动脉搭桥 (CABG) 亚组, 比较三个亚组代谢性危险因素特征。

结果: 1. 两组间吸烟、糖尿病患病比例、血脂异常患病比例均无显著性差异($P>0.05$); 老年组高血压患病比例、高密度脂蛋白胆固醇(HDL- c)、血肌酐(Cr) 高于中青年组 ($P<0.05$); 体质量指数(BMI)、舒张压 (DBP)、甘油三酯(TG) 低于中青年组 ($P<0.05$)。2. 中青年组 CABG 亚组糖化血红蛋白(HbA1c)、空腹血糖(FPG)、总胆固醇(TC)及低密度脂蛋白胆固醇(LDL- c)明显高于对照组 ($P<0.05$) 3. 老年组 3 个亚组间的收缩压 (SBP)、FPG 比较差异显著 ($P<0.05$),