

论著 合并糖代谢异常的冠心病患者血浆脂联素水平变化及其临床意义

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摘要:

目的: 检测脂联素(adiponectin, ADPN) 在合并糖代谢异常的冠心病患者血浆中浓度的变化,探讨其临床意义。
方法: 收集2009年8月至2010年4月在湘雅医院心内科经冠状动脉造影(coronary angiography, CAG) 检查证实为冠心病的患者87名,根据糖代谢情况分为单纯冠心病组(coronary heart disease group, CHD组, $n=31$)、冠心病合并糖耐量异常组(CHD combine with impaired glucose tolerance group, CHD+IGT组, $n=28$) 和冠心病合并糖尿病组(CHD combine with diabetes mellitus group, CHD+DM组, $n=28$),另选健康体检者31例为正常对照组(normal control group, NC组)。采用酶联免疫吸附法检测血浆ADPN水平;为所有受试对象测身高、体质量、腰围、血压;测空腹血糖、胰岛素、血脂、高敏C反应蛋白(high-sensitivity C-reactive protein, hs-CRP)、游离脂肪酸(free fatty acid, FFA) 和肝、肾功能等,计算体质量指数(body mass index, BMI) 和胰岛素抵抗指数(homeostasis model assessment for insulin resistance, HOMAIR)。**结果:** 1) CHD组、CHD+IGT组、CHD+DM组患者血浆ADPN水平均低于NC组($P<0.05$); 2) 与CHD组相比,CHD+DM组ADPN水平最低,CHD+IGT组次之,各组间差异有统计学意义($P<0.05$); 3) ADPN与HDL-C呈正相关($r=0.483, P<0.01$),与hs-CRP和冠脉Gensini积分呈负相关($r=-0.489, P<0.05$; $r=-0.252, P<0.05$)。**结论:** 冠心病患者血浆ADPN浓度降低;合并糖代谢异常的冠心病患者血浆ADPN浓度更低,且随着糖代谢异常程度加重降低更显著;冠心病与糖代谢异常是影响血浆ADPN浓度改变的两个重要因素,血浆ADPN水平显著降低反映了上述两种疾病状态的叠加作用。ADPN联合HDL-C,hs-CRP,Gensini积分等血清学指标可为判断合并糖代谢异常的冠心病患者的疾病严重程度提供一定参考。

关键词: 脂联素 冠心病 糖代谢异常 糖耐量异常 糖尿病

Plasma level of adiponectin in coronary heart disease patients combined with abnormal glucose metabolism

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Abstract:

Objective: To examine the plasma adiponectin concentration in coronary heart disease (CHD) patients combined with abnormal glucose metabolism, and to explore the clinical significance of adiponectin.
Methods: Eighty-seven hospitalized CHD patients confirmed by coronary angiography from August 2009 to April 2010 at Xiangya Hospital were enrolled and divided into 3 groups according to their glucose metabolic state: 31 patients were selected as a simple CHD group, 28 were selected as a CHD combined with impaired glucose tolerance group (CHD+IGT group), and the other 28 as a CHD combined with diabetes mellitus group (CHD+DM group). The 31 healthy subjects who got health checkup at the same time were enrolled as a normal control group (NC group). Plasma adiponectin was measured by enzyme linked immunosorbent assay. The height, weight, waistline and blood pressure of all the subjects were checked, and the fasting blood glucose (FBG), insulin, lipids, high-sensitivity C-reactive protein (hs-CRP), free fatty acids (FFA), the liver function and the renal function were checked as well. The body mass index and the homeostasis model were assessed for insulin resistance.
Results: 1) Plasma adiponectin in the CHD group, the CHD+IGT group, and the CHD+DM group was all lower than that in the NC group ($P<0.05$); 2) Compared with the CHD group, the plasma adiponectin in the CHD+DM group was the lowest, followed by the CHD+IGT group, and there was significant difference in the 3 groups ($P<0.05$); 3) Plasma adiponectin level was positively related with the high density lipoprotein cholesterol-C (HDL-C) ($r=0.483, P<0.01$), while it was negatively related with the hs-CRP and Gensini score ($r=-0.489, P<0.05$; $r=-0.252, P<0.05$).
Conclusion: Plasma adiponectin concentration is reduced in the CHD patients, and significantly reduced in CHD patients combined with abnormal glucose metabolism. Plasma adiponectin concentration decreases significantly with the severity of abnormal glucose metabolism. CHD and the abnormal glucose metabolism are important influence factors for plasma adiponectin. That plasma adiponectin level significantly decreases may be

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the superimposed results of CHD and abnormal glucose metabolism. Plasma adiponectin combined with HDL-C, hs-CRP and Gensini score may provide the reference in the judgement of the severity of CHD patients with abnormal glucose metabolism.

Keywords: adiponectin coronary heart disease abnormal glucose metabolism impaired glucose tolerance diabetes mellitus

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