

## 初诊2型糖尿病早期动脉硬化指标检测及其与糖化血红蛋白相关性

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**中文摘要:**目的通过对初诊2型糖尿病早期动脉硬化指标进行检测,并探讨其与血糖水平和糖化血红蛋白的相关性。方法125例初诊2型糖尿病患者,根据HbA1c水平分为HbA1c<8.5%组、HbA1c 8.5%~10.0%组和HbA1c>10%组,另选41例健康人作为正常对照组。所有受试者均测定空腹血糖,糖负荷后2h血糖、总胆固醇、三酰甘油、LDL-C、HDL-C及HbA1c。同时测定颈股脉搏波速度(cf-PWV)、踝臂血管指数(CAVI)、和踝臂指数(ABI)。比较不同HbA1c分组之间及其与正常对照组间上述指标的变化,分析cf-PWV、CAVI和ABI与HbA1c的关系。结果不同HbA1c分组中总胆固醇、三酰甘油、LDL-C、空腹血糖、餐后2h血糖、HbA1c、cf-PWV和CAVI均显著高于正常对照组( $P<0.05$ 或 $P<0.01$ ),且随HbA1c升高呈升高趋势,HDL-C和ABI显著低于正常对照组( $P<0.05$ ),随HbA1c升高呈降低趋势。上述指标在不同HbA1c分组中具有统计学差异( $P<0.05$ 或 $P<0.01$ )。对初诊2型糖尿病患者的单因素相关分析显示,cf-PWV和CAVI与HbA1c具有显著正相关( $R=0.612$ , $P<0.01$ 和 $R=0.537$ , $P<0.01$ ),ABI与HbA1c具有显著负相关( $R=-0.442$ , $P<0.05$ )。结论初诊2型糖尿病cf-PWV、CAVI和ABI等动脉硬化指标出现异常,与HbA1c水平显著相关。

**中文关键词:** [2型糖尿病](#) [动脉硬化](#) [糖化血红蛋白](#) [脉搏波速度](#) [踝臂血管指数](#)

### Study on the Measurement and the Association of Early Arteriosclerosis with HbA1c in Newly Diagnosed Type 2 Diabetes Mellitus

**Abstract:** Objective To study the measurement and the association of early arteriosclerosis with HbA1c in newly diagnosed type 2 diabetes mellitus. Methods Totally 125 newly diagnosed type 2 diabetes mellitus (T2DM) were divided into HbA1c<8.5% group, HbA1c 8.5%-10.0% group and HbA1c>10% group. 41 health persons were as normal control group. Fasting plasma glucose, plasma glucose of the 120 min after 75g oral glucose tolerance, total cholesterol, triglyceride, low-density lipoprotein cholesterol (LDL-C), high-density lipoprotein cholesterol (HDL-C), HbA1c, carotid-femoral pulse wave velocity (cf-PWV), cardio-ankle vascular index (CAVI) and ankle-brachial index (ABI) were measured and evaluated in all newly diagnosed diabetes mellitus and normal control subjects. The relationship between cf-PWV, CAVI and ABI and HbA1c were analyzed. Results Total cholesterol, triglyceride, LDL-C, fasting plasma glucose, two hours plasma glucose, HbA1c, cf-PWV and CAVI were significantly higher ( $P<0.05$  or  $P<0.01$ ) and HDL-C and ABI were lower ( $P<0.05$ ) in newly diagnosed diabetes mellitus than normal control subjects ( $P<0.05$  or  $P<0.01$ ). And they were increased with the increasing of HbA1c. There was significant difference among the three different HbA1c groups also ( $P<0.05$  or  $P<0.01$ ). The correlation analysis showed that cf-PWV and CAVI were positively correlated with HbA1c ( $R=0.612$ ,  $P<0.01$  and  $R=0.537$ ,  $P<0.01$ ) and ABI was negatively correlated with HbA1c ( $R=-0.442$ ,  $P<0.05$ ). Conclusion The cf-PWV, CAVI and ABI were abnormal in newly diagnosed diabetes mellitus and significantly correlated with HbA1c.

**keywords:** [Type 2 diabetes mellitus](#) [Arteriosclerosis](#) [HbA1c](#) [Pulse wave velocity](#) [Cardio-ankle vascular index](#)

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