

论文

肥胖2型糖尿病患者治疗前后apelin和TNF- α 水平变化及其意义

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摘要:

目的 探讨初诊肥胖2型糖尿病(T2DM)患者治疗前后血清Apelin与肿瘤坏死因子- α (TNF- α)水平变化及其意义。方法 收集初诊肥胖T2DM患者(T2DM组, n=61), 随机接受二甲双胍(Met组, n=31)和罗格列酮(Rog组, n=30)治疗, 健康体检者为正常对照组(NC组, n=30)。检测治疗前后血清Apelin、TNF- α 、空腹血糖(FBG)、空腹胰岛素(FIN)、糖化血红蛋白(HbA1c)水平及体质指数(BMI)的变化, 以稳态模型计算胰岛素抵抗指数(HOMA-IR)。结果 肥胖T2DM患者Apelin、TNF- α 水平均显著高于NC组(P均<0.05), 且与BMI、FIN、FBG、HOMA-IR均呈正相关(P均<0.05); 治疗后Apelin、TNF- α 、FBG、HbA1c水平均显著下降(P均<0.05), 其中Rog组Apelin、TNF- α 水平较Met组下降更为显著(P<0.05), Met组BMI显著下降(P<0.05), Rog组无显著变化(P>0.05); 相关分析显示治疗前后Apelin与TNF- α 均密切相关(P均<0.05)。结论 肥胖T2DM患者血清高水平Apelin、TNF- α 可能参与胰岛素抵抗的发生发展过程。

关键词: 2型糖尿病; 肥胖; Apelin; 肿瘤坏死因子- α

Significance of Apelin and TNF- α level changes in obese patients with type 2 diabetes mellitus before and after treatment

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Abstract:

Objective To investigate the effects of treatment with insulin-sensitizing agents on serum Apelin and tumor necrosis factor- α (TNF- α) levels in obese patients with type 2 diabetes mellitus(T2DM), and to assess the significance of Apelin and TNF- α level changes. Methods 61 newly-diagnosed obese patients with T2DM were enrolled in this study, and they were randomly divided to receive either metformin (the Met group, n=31) or rosiglitazone (the Rog group, n=30) treatment. 30 healthy individuals were included as the normal control group (NC group, n=31). Serum Apelin, TNF- α , fasting blood glucose (FBG), fasting insulin (FIN), glycosylated hemoglobin (HbA1c) and body mass index (BMI) were measured before and after treatment. The insulin resistance index (HOMA-IR) was assessed by a homeostasis model (HOMA). Results Both serum Apelin and TNF- α levels in obese patients with T2DM were significantly higher than those in the control group, and they were positively correlated with BMI, FIN, FBG and HOMA-IR(P<0.05). Apelin, TNF- α , FBG and HbA1c significantly decreased after treatment compared to those before treatment (P<0.05). Moreover, the Rog group showed lower Apelin and TNF- α levels than those in the Met group (P<0.05). BMI was significantly decreased in the Met group(P<0.05). But had no significant change(P>0.05) in the Rog group. Apelin level was positively correlated with TNF- α both before treatment (P<0.05) and after treatment (P<0.05). Conclusion High levels of serum Apelin and TNF- α in obese patients with T2DM may be involved in the occurrence and development of insulin resistance.

Keywords: Type 2 diabetes mellitus; Obesity; Apelin; Tumor necrosis factor- α

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