

论著

洛沙坦治疗糖尿病的气相色谱代谢组学

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摘要 摘要: 目的 建立基于气相色谱的“全”组分代谢物代谢组学分析方法, 评价洛沙坦对糖尿病的治疗效果。方法 取服药后患者尿样, 样品被预处理和色谱分析后, 经峰匹配进行多变量代谢组学分析。同时测定患者服药前后不同时间的血压、尿蛋白、尿中8-羟-2-脱氧鸟苷含量和血肌酐浓度。结果 患者服药8~12周后洛沙坦对糖尿病的治疗效果不明显, 常规生化指标未发生显著性变化, 代谢组学研究显示葡萄糖醇和肌醇等代谢物发生变化。结论 代谢组学能利用机体不同时间点代谢组的变化轨迹描绘药物疗效的发展过程。

关键词 [代谢组学](#) [气相色谱](#) [疗效](#) [洛沙坦](#) [糖尿病](#)

分类号

Assessment of Therapeutic Effect of Losartan on Diabetes Mellitus with Gas Chromatography-based Metabonomics

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Abstract ABSTRACT: Objective To assess the therapeutic effect of losartan on type 2 diabetes mellitus (DM2) with gas chromatography (GC)-based metabonomics. Methods DM2 patients were dosed with losartan (100 mg/d) and urines were collected at week 8 and 12. The biochemical criteria (blood pressure, urinary albumen, urinary 8-hydroxy-2'-deoxyguanosine and blood creatinine) were analyzed. Urine samples were derivatized and analyzed by GC. Multivariate metabonomics analysis was performed after peak alignment. Results After 8-12 weeks, losartan showed little curative effect and no remarked changes of biochemical criteria were observed. However, metabonomics analysis revealed that some biomarkers such as glucitol and inositol changed. Conclusion GC-based metabonomics analysis enables the rapid identification of metabolic differences and provides information concerning therapeutic effect of losartan.

Key words [metabonomics](#) [gas chromatography](#) [therapeutic effect](#) [losartan](#) [diabetes mellitus](#)

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