论著

ROC曲线法分析糖化血红蛋白在妊娠糖尿病诊断中的作用

搜索

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摘要

目的：采用接受者操作特性曲线(receiver operating characteristic，ROC)曲线统计学方法分析糖化血红蛋白(glycosylated hemoglobin Alc，HbAlc)在妊娠糖尿病(gestational diabetes mellitus，GDM)的筛查与诊断中的作用。方法：整理统计湖南省妇幼保健院2014年上半年2 283例24~28周产检孕妇的OGTT、HbAlc结果，根据OGTT结果将受试者分为正常组和GDM组，采用2组独立样本的T检验统计学方法分析2组HbAlc数据的差异性。以HbAlc值绘制诊断ROC曲线，分析HbAlc对于筛查诊断GDM的作用；以≥5.7%为阳性标准，将HbAlc分成阴性、阳性结果，绘制诊断ROC曲线，分析HbAlc对于诊断筛查 GDM的作用。结果：正常组与GDM组HbAlc值的差异有统计学意义(P<0.05)；以HbAlc值绘制诊断 ROC曲线，曲线下面积(area under curve，AUC)为0.661，95%置信区间范围为0.620~0.702；将HbAlc 值分成阴性、阳性结果绘制诊断ROC曲线，AUC为0.545，95%置信区间范围为0.502~0.588。结论： HbAlc只能考察检测前2月内的血糖平均水平，不能用作GDM早期筛查与诊断的标准。

关键词： ROC曲线　妊娠糖尿病　糖化血红蛋白

Exploring the medical diagnostic performance of glycosylated hemoglobin to gestational diabetes mellitus using receiver operating characteristic plots

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Abstract

Objective: To evaluate the accuracy of glycosylated hemoglobin A1c (HbA1c) for the diagnosis of gestational diabetes mellitus (GDM) using receiver operating characteristic (ROC) plots. Methods: Collected the value of OGTT and HbA1c of 2 283 pregnant women of 24~28 gestation week, distributed the subjects into normal pregnancy group and GDM group, compared the difference between the 2 groups using independent-samples T test, analyzed the diagnostic performance of HbA1c by ROC plots. Results: The difference of the HbA1c of normal pregnancy group and GDM group was significant ($P<0.05$). The area under curve (AUC) of ROC plots calculated by HbA1c value was 0.661, with the 95% confidence interval of 0.620~0.702. Set ≥5.7% as the positive criteria, the AUC of ROC plots was 0.554, with the 95% confidence interval of 0.502~0.588. Conclusion: HbA1c was not a sensitive test to the screening and diagnosing of early gestational diabetes mellitus.

Keywords: ROC plots GDM HbA1c

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引用

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