

عنوان مقاله:

Decreased Threshold of Fasting Serum Glucose for Cardiovascular Events: MASHAD Cohort Study

محل انتشار:

مجله گزارش های بیوشیمی و زیست شناسی مولکولی، دوره 9، شماره 1 (سال: 1399)

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خلاصه مقاله:

Background: Cardiovascular disease (CVD) is the leading cause of morbidity and mortality globally, and specifically in Iran. Generally, diabetes mellitus is the result of impaired glucose tolerance which together with dyslipidemia are considered as important risk factors of CVD. The aim of this study was to determine the relationship between fasting serum glucose (FSG), lipid profile and CVD endpoints, and to establish an optimal FSG cut-off in the MASHAD cohort study after nearly 6 years of follow-up. **Methods:** All the participants of MASHAD study were followed up for 6 years to determine their cardiovascular status. FSG, fasting lipids, and physical examinations were all recorded. To identify the optimal cut-off point of FSG, we carried out receiver operating curve (ROC) analysis. **Results:** We determined MASHAD cutoff point of blood glucose as 90 mg/dl predicting the CVD outcome. The sensitivity and specificity of the FSG criterion were 54.34% and 71.68%, respectively. The AUC was 0.665 (95% CI 0.656-0.675, $P < 0.0001$). The adjusted hazard ratio show that FSG is associated with 2.34 increase in CVD risk using MASHAD cutoff point (HR 2.34, 95% 1.73–3.17, $P < 0.001$). **Conclusions:** These findings suggest that not only FSG and lipid profile are related to CVD outcome in the MASHAD study, but also elevated fasting glucose levels is strongly associated with cardiovascular events in this population. Besides, the fasting glucose at a threshold of 90 mg/dl can be used for screening cardiovascular events among the Iranian population.

کلمات کلیدی:

Fasting Serum Glucose, Lipid profile, Cardiovascular disease (CVD), MASHAD cohort study

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