

The association between serum lipid profile and glycosylated hemoglobin in type 2 diabetic patients

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Abstract:

Background: Patients with type II diabetes are at high risk of dyslipidemia, and subsequently, cardiovascular diseases. The present study investigates the relationship between glycosylated hemoglobin and lipid profile, and its effect as a predictive indicator of dyslipidemia in type II diabetes.

Method: The present cross-sectional study enrolled 802 patients with type II diabetes. Glycosylated hemoglobin was divided into two groups ($<8\%$ and $\geq 8\%$). GFR at two levels ($>60\%$ and $\leq 60\%$) was measured using two different techniques (EPI and MDRD). Then, the relationship of lipid profile with different levels of hba1c and GFR was separately determined.

Results: In the present study, 74% of those with $\text{hba1c} \leq 8\%$ and 71% of those with $\text{hba1c} > 8\%$ were female. Cholesterol, Triglyceride and LDL were significantly higher in patients with $\text{hba1c} > 8\%$ compared to those with $\text{hba1c} \leq 8\%$ (P value < 0.005 , 0.046 and 0.005, respectively). The relationship with HDL was not significant. Moreover, analysis of data at two levels of GFR showed a significant difference in patients with $\text{GFR} \geq 60$ only in terms of Triglyceride. This relationship was significant using both EPI and MDRD methods (P value = 0.011 and 0.017 respectively).

Conclusion: Glycosylated hemoglobin can be used as a predictor of dyslipidemia in patients with type II diabetes, and its subsequent diagnosis and treatment, and thus prevention of cardiovascular diseases.



Biography:

Mitra Kazemi Jahromi is an Assistant Professor in the department of Endocrinology at Hormozgan University of Medical Sciences, Bandar Abbas, Iran. Her Education was in General Practice at Shiraz University of Medical Sciences, Shiraz, Iran, in the Year of 2002 and Specialty of Internal



Medicine at Tehran University of Medical Sciences, Tehran, Iran in 2011. She also did sub specialty of Endocrinology and Metabolism at Shahid Beheshti University of Medical Sciences, Research institute for endocrine sciences, Tehran, Iran in the year 2018. She published 8 papers about internal medicine and now working in Clinical Research Center and Endocrine Research Center of Hormozgan University of Medical Sciences with more focus on diabetic patients.

Speaker Publications:

1. Mitra Kazemi Jahromi, Hormozgan University of Medical Sciences, Iran; The association between Glycated Hemoglobin and glomerular filtration rate in type2 diabetic patients.
2. Mehrnaz Asadi Gharabaghi, Seyed Farshad Allameh, Hossein Foroutan, Alireza Abdollahi, Mitra Kazemi Jahromi, Siamak Mehdizadeh Seraj; Tehran University of Medical Science, Hormozgan University of Medical Sciences; Blood Procalcitonin Predicts Spontaneous Bacterial Peritonitis in Patients with Cirrhosis and Ascites; <https://www.researchgate.net/publication/282127826>.

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