

Hemoglobin Glycation Index Is Associated with Incident Chronic Kidney Disease in Subjects with Impaired Glucose Metabolism: A 10-Year Longitudinal Cohort Study

Roomi Raja *

Medicine, Ziauddin University, Karachi, PAK.

***Corresponding Author:** Andrea Matteucci, Medicine, Ziauddin University, Karachi, PAK.

Received date: September 13, 2023; Accepted date: September 29, 2023; Published date: October 16, 2023

Citation: Raja Raja, (2023), Hemoglobin Glycation Index Is Associated with Incident Chronic Kidney Disease in Subjects with Impaired Glucose Metabolism: A 10-Year Longitudinal Cohort Study, *International Journal of Cardiovascular Medicine*, 2(5); DOI:10.31579/2834-796X/045

Copyright: © 2023, Roomi Raja. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

Introduction

We have in recent times read with great enthusiasm the article entitled "Hemoglobin glycation index is associated with incident chronic kidney disease in subjects with impaired glucose metabolism: A 10-year longitudinal cohort study" by Wonjin Kim et al.¹ The author's endeavours are cherished regarding this valuable topic and need to be endorsed by readers.

We acknowledge the prime conclusion of the research article that high haemoglobin glycation index is associated with increased chances of incident chronic kidney disease.¹ However, some concerns crop up, disturbing the efficacy of the study.

Even though the author pointed out the drawbacks of the study, such as not including participants on oral hypoglycemic agents or insulin and taking glucocorticoids or diuretics but there remain some factors that markedly make an impact on the findings, such as they could have left out the participants having a history of any malignant disease, heart failure and gastrointestinal diseases which regulates glucose metabolism.² Secondly, the author's should have considered the participants' ethnicity to increase the diversification within the population, Like the study of 2011 included blacks and whites that radically influenced their issues.³

Thirdly, vitamin D has many roles and major effects on our bodies. In this case, vitamin D is associated with the Hemoglobin glycation index. For example study in 2021 stated that the Hemoglobin glycation index value tends to increase in female patients having low vitamin D.⁴ Therefore, the authors should have taken into consideration the laboratory value of vitamin D. Lastly, some of the recent studies show that glycated albumin carries increased potential to identify the complications associated with impaired

glucose metabolism. Therefore authors could have included glycated albumin as a predictor.⁵

References

1. Kim W, Go T, Kang DR, Lee EJ, Huh JH. (2021). Hemoglobin glycation index is associated with incident chronic kidney disease in subjects with impaired glucose metabolism: A 10-year longitudinal cohort study. *J Diabetes Complications*. 35(1):107760.. Epub 2020 Oct 7. PMID: 33077349.
2. Fiorentino TV, Marini MA, Succurro E, Sciacqua A, Andreozzi F, Perticone F, Sesti G. (2017). Elevated hemoglobin glycation index identify non-diabetic individuals at increased risk of kidney dysfunction. *Oncotarget*. 8(45):79576-79586. PMID: 29108337; PMCID: PMC5668070.
3. Selvin E, Ning Y, Steffes MW, Bash LD, Klein R, Wong TY, Astor BC, Sharrett AR, Brancati FL, Coresh J. (2011). Glycated hemoglobin and the risk of kidney disease and retinopathy in adults with and without diabetes. *Diabetes*. 60(1):298-305. Epub 2010 Oct 26. PMID: 20978092; PMCID: PMC3012185.
4. Li Z, Wang F, Jia Y, Guo F, Chen S. (2021). The Relationship Between Hemoglobin Glycation Variation Index and Vitamin D in Type 2 Diabetes Mellitus. *Diabetes Metab Syndr Obes*. 14:1937-1948. PMID: 33958883; PMCID: PMC8096423.
5. Kim KJ, Lee BW. (2012). The roles of glycated albumin as intermediate glycation index and pathogenic protein. *Diabetes Metab J*. 2012 Apr;36(2):98-107. Epub. PMID: 22540045; PMCID: PMC3335903.

Ready to submit your research? Choose ClinicSearch and benefit from:

- fast, convenient online submission
- rigorous peer review by experienced research in your field
- rapid publication on acceptance
- authors retain copyrights
- unique DOI for all articles
- immediate, unrestricted online access

At ClinicSearch, research is always in progress.

Learn more <https://clinicsearchonline.org/journals/international-journal-of-cardiovascular-medicine>



© The Author(s) 2023. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit <http://creativecommons.org/licenses/by/4.0/>. The Creative Commons Public Domain Dedication waiver (<http://creativecommons.org/publicdomain/zero/1.0/>) applies to the data made available in this article, unless otherwise stated in a credit line to the data.