IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.53
Volume 4, Issue 4, March 2024

Glycosylated Haemoglobin Testing: A Review

Akansha Naithani[1] and Sakshi Yadav[2]
Amity University, Noida, Uttar Pradesh, India[1]
G. D. Goenka University, Sohna, Haryana, India[2]

Abstract: *The following article discusses the discovery, biochemistry, laboratory determination, clinical applications, and error for glycosylated haemoglobin. There is no one test method that is appropriate for all applications, and the development of widely recognized standards and reference ranges is unlikely in the near year. Nonetheless, the introduction of glycosylated haemoglobin tests represents a significant step forward. They provide the most accurate way of determining diabetic management. As a result of a growing awareness that chronic hyperglycemia is a substantial predictor of long-term issues, there has been a surge in interest in diabetes management monitoring. As a result, the discovery of glycosylated haemoglobin came at an ideal moment; measuring it should provide a more objective control evaluation than previously achievable. Therefore, before this promise can be fully fulfilled, technological difficulties must be solved.*

Keywords: Haemoglobin, hyperglycemia,fasting haemoglobin

REFERENCES

[1]. Skyler JS. Complications of diabetes mellitus: relationship to metabolic dysfunction. Diabetes Care 1979;2:499-509.
[2]. Tchobroutsky G. Relation of diabetic control to development of microvascular complications. Diabetologia 1978; 15:143-52.
[3]. Peacock I, Tattersall RB. Methods of self monitoring of diabetic control. Clin Endocrinol Metab 1982; 11:485-501.
[4]. Kunkel HG, Wallenius G. New haemoglobin in normal adult blood. Science 1955; 122:288.
[5]. Morrison M, Cook JL. Chromatographic fractionation of normal adult oxyhaemoglobin. Science 1955; 122:920-1.
[6]. Allen DW, Schroeder WA, Balog J. Observations on the chromatographic heterogeneity of normal adult and fetal human haemoglobin: a study of the effects of crystallization and chromatography on the heterogeneity and isoleucine content. J Am Chem Soc 1958;80: 1628-34.
[7]. Bookchin RM, Gallop PM. Structure of haemoglobinA,c: Nature of the N-terminal ,8 chain blocking group. BiochemBiophys Res Commun1968;32:86-93.
[8]. Rahbar S. An abnormal haemoglobin in red cells of diabetics. Clin Chim Acta 1968;22:296-8.
[9]. Huisman THJ, Dozy AM. Studies on the heterogeneity of haemoglobin. V. Binding of haemoglobin with oxidised glutathione. J Lab Clin Med 1962;60:302-19.
[10]. Rahbar S, Blumenfeld 0, Ranney HM. Studies of an unusual haemoglobin in patients with diabetes mellitus. BiochemBiophys Res Commun1969;36:838-43.
Krishnamoorthy R, Gacon G and Labie D. Arguments for deamidation as the modification in haemoglobin Aib. INSERM 1977; 70:309-18.
[11]. ' Worth R, Potter JM, Drury J, Fraser RB, Cullen DR. Longitudinal changes in glycosylated haemoglobin in normal studies with two independent methodologies.
[12]. Nathan DM, Francis TB, Palmer JL. Effect of aspirin on determinations of glycosylated haemoglobin. Clin Chem 1983;29:466-9.
[13]. Javid J, Pettis PK, Koenig RJ, Cerami A. Immunologic characterisation and quantification of haemoglobin A,C. Br J Haematol 1978;38:329-37.
[14]. Patient's report.

DOI: 10.48175/IJARSCT-15966