

Blood miRNA signature in type-2 diabetes mellitus? Possible futuristic molecular biomarkers



Sikandar Hayat Khan

PNS Hafeez - Naval Hospital, Pakistan

Biography

Sikandar Hayat Khan is a Medical profession. He did his fellowship in Chemical Pathology from Pakistan and later did a Post-graduate diploma in Endocrinology and Diabetes from UK. He later managed to complete my Masters in Cancer, Molecular Pathology & Genomics from UK. Over 25 years in the field of his medical profession, he managed to publish over 65 publications in the field of metabolic diseases especially type -2 diabetes mellitus, insulin resistance, lipidology. In recent years he developed specific interest in molecular pathology of metabolic diseases including type-2 diabetes mellitus.

Abstract

The disease burden associated with Type-2 Diabetes Mellitus (T2DM) on a daily basis, which makes it necessary to develop new diagnostic modalities for T2DM. The recently emerging molecular biomarkers have high predictive potential, enhanced diagnostic efficacy, therapeutic efficacy, and ability to assess progression to complications. In recent times we have some epigenetic biomarkers like miRNAs which have shown some promise in various diseases including T2DM. There are recent reports that some epigenetic biomarkers, including miRNA have the predicting the onset of various diseases including T2DM. Recent data highlight the diagnostic potential of miRNAs in the diagnosis, associated pharmacogenomics, and assessment of various microvascular and macrovascular complications in T2DM. The existing literature was reviewed as per a defined methodology, and the studies on the miRNAs in the blood samples of patients with diabetes were finally included herein. The review identified the miRNAs that are upregulated and downregulated across various stages of T2DM. A T2DM miRNA signature was finally identified which needs to be further validated by replicative data obtained from high-quality trials or advanced sequencing techniques for confirmation or annulment.

Key words: miRNA, Type-2 diabetes mellitus (T2DM), DGCR8, messenger RNA (mRNA), pri-miRNA, pre-miRNA



[3rd Global experts meet on Advanced Technologies in Diabetes Research and Therapy](#) | November 02-03, 2020

Citation: Sikandar Hayat Khan, Blood miRNA signature in type-2 diabetes mellitus? Possible futuristic molecular biomarkers, Diabetes Meet 2020, 3rd Global experts meet on Advanced Technologies in Diabetes Research and Therapy, November 02-03, 2020,05