



Hyperlipidemia and Diabetes Type 2 Genetic Variations as Cardio Vascular Disease Risk Factors in The Palestinian Population

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ABSTRACT

Chronic diseases are leading causes of death and disability; they include cardio vascular diseases, cancer, chronic respiratory diseases, and diabetes, the prevalence of these chronic diseases were 35 million in 2007 worldwide, and more than 15 million occur in people younger than 70 years. The WHO has proposed a global goal which is an additional 2% reduction per year in age-specific rates of death caused by these diseases to prevent and control chronic diseases, it is estimated that by the year 2030, 23.6 million people will die due to cardiovascular diseases. Hyperlipidemia can be genetic, environmental or both, genetic studies suggested that variation in lipids are due to specific variants at numerous gene loci and this may contribute to the variation of these levels between different populations, moreover type 2 diabetes (T2D) is the result of interaction between environmental factors and a strong hereditary component. Genetic association of numerous variants at several gene loci involved in the lipid metabolic and transport pathways and variants involved in diabetes have been studied. Sample from 71 participants, were taken to interview to their family risk of Blood sugar, and lipids. Palestinians have a high prevalence rate of hyperlipidemia and type 2 diabetes risk factors, making it imperative to investigate their genetic basis. Also in comparison to the world, our frequency of Palestinian lipids genes and diabetes genes have many differences from international and many observations could strongly suggesting that Palestinians may also carry disease-associated alleles at frequencies different from other ethnic groups.

In conclusion, unraveling the genetic basis of cardiovascular disease risk in the Palestinian population with hyperlipidemia and type 2 diabetes is a crucial step towards improving health outcomes in this population. Further research is needed to validate these findings and explore their clinical implications.