JMSCR Vol||05||Issue||10||Page 28969-28976||October 2017

www.jmscr.igmpublication.org
Impact Factor 5.84
Index Copernicus Value: 71.58
ISSN (e)-2347-176x ISSN (p) 2455-0450
crossref DOI: https://dx.doi.org/10.18535/jmscr/v5i10.84

IGM Publication
Journal Of Medical Science And Clinical Research
An Official Publication Of IGM Publication

Role of family history and other metabolic factors in Diabetes in Asian Indian population

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Abstract
Introduction: *Type 2 diabetes mellitus (T2DM) is a type of metabolic disorder, which is currently imposing a serious threat to the well-being of the world population. Globally, an estimated 422 million adults are living with T2DM, according to the latest 2016 data from WHO, and the number is likely to be doubled by 2030. Variation in the incidence and prevalence of the disease has been associated with the contribution of multigenic predisposition towards it. One such gene is the CRP, where the increased level of CRP has been correlated with the symptoms of T2DM.*
Objectives: *To determine the prevalence of T2DM among the Indian obstetric population, To determine the pervasiveness of the gentic polymorphisms in CRP gene in subjects with/without having family history of T2DM (FHD) and to find out any role of the mothers with/without having family history to the newborn babies.*
Method: *The investigation has been carried out upon 180 pregnant women and their newborns. Their anthropometric measurements, blood pressure and metabolic profiles were estimated. Alongside, their DNA was isolated for genotyping for CRP followed by statistical analyses.*
Result: *A population trend was noticed where individuals with positive family history of diabetes(FHD) had significantly higher prevalence of metabolic risk factors and its confounding factors as compared to their counterparts during pregnancy, which is also affecting their next generation which may lead to childhood obesity.*
Conclusion: *Positive FHD and CRP (GG polymorphism) SNPs play an important role in triggering the activation of metabolic risk factors during the pregnancy, and this could be one of the major factors for development of T2DM and metabolic syndrome in the next generations. These findings suggest that family history could be used as a tool for genomic studies among the Asian Indians.*
Keywords: *Type 2 diabetes, Family history, Metabolic risk factors, CRP gene*

Introduction

Type 2 diabetes mellitus is a long term metabolic disorder that consists of an array of dysfunctions characterized by hyperglycemia and resulting from the combination of resistance to insulin action, inadequate insulin secretion, and excessive