

13th Global Diabetes Conference and Medicare Expo

August 08-10, 2016 Birmingham, UK

***KCNJ11* gene polymorphism E23K (rs5219): An association study in type 2 diabetes mellitus in Indian population of Eastern Uttar Pradesh**

Sunita Singh

Banaras Hindu University, India

Despite a very large burden of type 2 diabetes in India, insight into the genetic architecture of Type 2 Diabetes (T2D) in Indian population of Eastern Uttar Pradesh is currently lacking. Genome-Wide Association Scan Studies (GWASs) have led to the discovery of several novel genetic markers associated to Type 2 diabetes (T2D). Multiple studies have demonstrated reproducible association of several genetic markers (SNPs) with T2D risk, each making a modest contribution to the overall risk mainly in European populations. Only a few investigations for T2D susceptibility genes have been reported in South Asia. Recent studies suggest that the *KCNJ11* gene, which encodes the Kir6.2 subunit of the ATP-sensitive potassium (KATP) channel, can also be a diabetogenic gene. The E23K KATP channel polymorphism has received much attention recently due to its higher frequency in the Caucasian type-2 diabetic population. The variant E23K (rs5219) of *KCNJ11* has been demonstrated to have modest association with T2D in European, Japanese and North Indian populations. In the present investigation, we have studied the association of *KCNJ11* (E23K) (rs5219) gene polymorphism to T2D in the Indian population of Eastern Uttar Pradesh in 240 cases and 229 ethnically matched control subjects. Our data show weak association to T2D with odds ratio 1.086 (95% CI 0.832-1.416; P = 0.544) and it also shows the association to T2D under co-dominant model only.

Biography

Sunita Singh is an Associate Professor in Banaras Hindu University, India. She did her PhD in Biochemical and Evolutionary Genetics and Post-doctoral studies in Population Genetics from Banaras Hindu University. Her current research work involves genetics of complex diseases, including genetics of type 2 diabetes and molecular pathology of multiple cancers. She has authored/co-authored 23 papers in the field of molecular evolution, type 2 diabetes and carcinogenesis.

sunitasinghvns@gmail.com

Notes: