

# 13<sup>th</sup> Global Diabetes Conference and Medicare Expo

August 08-10, 2016 Birmingham, UK

## Obesity and the incidence of apolipoprotein E polymorphisms in an assorted population from Saudi Arabia population

**Khalid K Alharbi**

King Saud University, Saudi Arabia

Obesity is known to be a complex disorder caused by both genetic and environmental factors. Patients with obesity tend to develop cardiovascular disease and type 2 diabetes. Earlier studies have revealed that obesity is associated with genetic variations like those found in apolipoprotein E (APOE), a genetic determinant of obesity-related factors and lipid profiles. Hence, in the present study we aimed to perform a molecular characterization of APOE gene polymorphisms found in obese patients within a Saudi population. A case-control study was performed on 198 cases and 198 controls, selected from participants at the King Saud University. TaqMan genotyping was performed to investigate polymorphisms in the APOE gene. The present study identified that APOE polymorphisms were significantly associated with obesity in a Saudi population with the  $\epsilon 4$  allele ( $p=0.0001$ ). We found a statistically significant difference in the genotype distribution between cases and controls [for E3/E4: OR, 2.16 (95% CI: 1.19-3.91);  $p=0.009$ ]. A significant difference was observed in the lipid profile parameters like triglycerides, low-density lipoprotein, and APOE alleles ( $p<0.001$ ). Our results confirm that APOE variants are associated with obesity in a Saudi population.

### Biography

Khalid K Alharbi has completed his PhD in 2004 from University of Southampton. He is a Professor and Chairman of Saudi society for clinical laboratory sciences in College of Applied Medical Sciences at King Saud University. He has published more than 50 papers in reputed journals and has been serving as an Editorial Board Member of repute. He is actively involved in Deanship of Scientific Research and National Plan for Science and Technology projects. His area of interest is type 2 diabetes, obesity, familial hypercholesterolemia and consanguineous problems.

[khari@KSU.EDU.SA](mailto:khari@KSU.EDU.SA)

### Notes: