

Null association of aldosterone synthase (cyp11b2) gene-344 c > t promoter polymorphism in type 2 diabetic patients among Indian population

Pulakes Purkait¹, B.N. Sarkar² and J.M. Naidu³

¹DNA laboratory unit, Anthropological Survey of India, India

²Anthropological Survey of India, India

³Department of Anthropology, Andhra University, India

The Renin-Angiotensin-Aldosterone System (RAAS) is a regulator of blood pressure as well as kidney functions and is suggested to play an important role in the development of nephropathy in Type 2 Diabetes. Aldosterone is an important component of RAAS, and plays an important role in controlling blood pressure, water and electrolyte homeostasis in the body. Aldosterone synthase gene (CYP11B2) polymorphism has been reported to be associated with serum aldosterone level, blood pressure, and diabetic complication such as nephropathy and left ventricular size and mass. The aim of this study was to evaluate the relation between CYP11B2 gene (-344 C>T) promoter polymorphism and type 2 diabetic patients in the Indian population. The present study was carried out among 323 subjects of both sexes, consisting of 205 type 2 diabetes patients (T2DM) and 118 healthy controls. Genotyping was performed by polymerase chain reaction -restriction fragment length polymorphism analysis (PCR-RFLP). The frequencies of CYP11B2 gene CC, CT, TT genotypes among the cases T2DM, and Controls are (13.17 %, 51.70 %, and 35.12 %. T2DM; 16.95 %, 38.14 %, 44.91 % controls) respectively. Our study failed to identify any association of CYP11B2 gene (-344 C>T) promoter polymorphism with type 2 diabetic patients in Indian population.

Biography

Pulakes Purkait is a doctoral student under Dept. of Anthropology, Andhra University. He is also as Senior Research Fellow under Anthropological Survey of India, WRC, Udaipur. He has a number of publications in National and International reputed journals.

pulakes.purkait28@gmail.com