

F830

Variability of *Amylin* Gene in Korean Subjects

Hyun Seon Eo*, Seung Ho Hong¹, Byung Yong Kang, and Chung Choo Lee
Department of Biology, and Molecular Biology¹, Seoul National University

Many *in vitro* and *in vivo* studies suggest that amylin is a biologically active peptide and modulates glucose metabolism. Therefore, Amylin is a good candidate for insulin resistance and essential hypertension. To determine whether the mutation of the amylin gene is associated with essential hypertension, we scanned the amylin gene for mutations in Korean hypertensives and normotensives by single-strand conformational polymorphism (SSCP), found a single heterozygous missense mutation (AGC^{Ser} to GGC^{Gly} : S20G mutation) in 2 hypertensive patients (frequency 2.3%, n=87) and an unknown mutation in 3 normotensive control (frequency 3.6%, n=83). Our data suggests that the S20G mutation in the coding region of the amylin gene may be associated with susceptibility to essential hypertension, but is not a major determinant of amylin function or of the pathophysiology of essential hypertension.

F831

Polymorphisms of the Water and Electrolyte Metabolism-associated genes in Hypertensives

Ju Hyung Oh*, Seung Ho Hong, Hyun Seon Eo¹, and Chung Choo Lee¹
Department of Molecular Biology and Biology¹, Seoul National University

Complex quantitative traits such as Blood pressure are influenced by genetic and environmental factors. Candidate genes that blood pressure variation includes renin-angiotensin system, kallikrein kinin system, natriuretic peptide system, and so on. Thus, we performed case-control studies using genetic markers in Korean normotensives and hypertensives, respectively. Allele frequencies were not significantly different between the two groups ($P > 0.05$). We also performed SSCP analysis for renin gene. Abnormal band did not detected. But, The allele frequency of *ScaI* RFLP at the atrial natriuretic peptide (ANP) gene in Koreans (0.12) was similar to those of Mauritian Indians (0.10). Thus, *ScaI* RFLP at the ANP may be useful as the genetic marker to study on the ethnic or racial groups.