

F839 **Association of *apolipoprotein(a)* gene variations with essential hypertension in Koreans**

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Apolipoprotein(a)(*apo(a)*) gene contains two sequence polymorphisms. The TTTTA repeat constitutes the first sequence polymorphism at the *apo(a)* locus, other than the polymorphism of KIV37 Met/Thr, which is associated with plasma concentrations of lipoprotein(a)(Lp(a)). High level of Lp(a) is a risk factor for the development of essential hypertension, and plasma Lp(a) concentration is attributable to sequences at or closely linked to the *apo(a)* locus. To evaluate relationship between the genetic variations in the *apo(a)* gene loci and essential hypertension in Koreans, we carried out case-control studies. We investigated the frequency distributions of polymorphic sites of the *apo(a)* gene in 71 Korean essential hypertensives and 211 normotensives, using a PCR-based method. We did not find significant differences between polymorphic sites of the *apo(a)* gene and essential hypertension in Koreans($p>0.05$). However, the Met allele frequency of Koreans(0.60) was significantly higher than that of Caucasians(0.35) ($P<0.05$). Therefore, *apo(a)* Met/Thr polymorphism may be useful as genetic marker for population study.

F840 **CONSTRUCTION OF SEX CHROMOSOMAL STR LOCI TYPING SYSTEM**

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We introduce the development of sex-linked quadruplex system (DYS390-DYS389 I -HPRTB-DYS389 II) for the gender determination. It is necessary to use multiplex systems which fit Korean population. Amelogenin typing is very useful tool for forensic gender typing with its high sensitivity. But in case of mixed forensic sample, it is hard to interpret the result. Two Y linked marker (DYS389, DYS390) and one X linked marker (HPRTB) were selected and consequently quadruplex system was made which enables the correct discrimination between male and female at one PCR. In case of no band on gel with Y-marker alone, it is impossible to interpret if absence of band was caused from DNA degradation or female sample. Besides these advantages, the constructed system can be efficiently used for the study of paternal inheritance which are meaningful in Korea where lineage is regarded as to be important.