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| 제 목             | 당뇨와 고지혈증을 가진 대상에서 Calpain 10 의 유전자 다형이 고혈압에 미치는영향<br>Genetic Polymorphisms of Calpain 10 Affects the Risk of Hypertension with Diabetes<br>Mellitus or Hypercholesterolemia   |
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Hypertension is an important risk factor for a variety of cardiovascular-related diseases and is known to have a polygenic etiology. However, identification of the specific genes involved in the development of hypertension has not been very successful. Calpain 10 genetic polymorphisms have been reported to be associated with diabetes mellitus, but association of these polymorphisms with hypertension has not been evaluated. In this study, we analyzed the effects of Calpain 10-43, 10-19, 10-63 polymorphisms and haplotype on the risk of hypertension alone as well as combinational disease with diabetes mellitus or hypercholesterolemia.

Three hundred nine patients diagnosed with hypertension and the same number of age-sex matched control was included in this study. No significantly increased risk of hypertension by Calpain 10 polymorphism was found when we considered hypertension only.

In the analysis of the combinational diseases, Del/Delgenotype of Calpain 10-19 was shown to increase risk of hypertension with diabetes mellitus significantly. In addition, the effects of Calpain 10-19 and Calpain 10-63 polymorphisms were observed to alter the risk of hypertension with hypercholesterolemia. In the analysis of haplotype with Calpain 10, the 43G19Ins63C was the most frequent haplotype and the other haplotypes showed increased risk significantly compared to it.

In conclusion, we found that Calpain 10 genetic polymorphisms altered the risk of hypertension with diabetes mellitus or hypercholesterolemia, whereas there was no significant relation between Calpain 10 polymorphisms and risk of hypertension alone.