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IL-18, TGF-β 및 VEGF 유전자 다형성이 IgA 신병증 및 얇은 사구체기저막병의 발생에 미치는 영향

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The Impact of Gene Polymorphisms of Interleukin-18, Transforming Growth Factor-β and Vascular Endothelial Growth Factor on Development of IgA Nephropathy or thin Glomerular Basement Membrane Disease

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Purpose: We investigated the effects of gene polymorphisms on the development of IgA nephropathy and thin glomerular basement membrane (GBM) disease by analyzing polymorphisms in the interleukin (IL)-18, transforming growth factor (TGF)-β, and vascular endothelial growth factor (VEGF) genes in Korean patients.
Methods: The study included 146 normal subjects (control group) and biopsy-proven 69 IgA nephropathy and 44 thin GBM disease patients. The gene polymorphisms A-607C and G-137C in IL18, C-509T and T869C in TGFB1, and C-2578A and C405G in VEGF were investigated in DNA extracted from peripheral blood.
Results: The frequencies of the IL18 -607CC genotype (p=0.002) and the VEGF 405GG genotype (p=0.002) were significantly increased in the IgA nephropathy group compared with the control group. No significant differences in genotype frequency were observed between the thin GBM disease and control group. There were no significant differences in genotype and allele frequencies between IgA nephropathy and thin GBM disease groups.
Conclusion: Significant differences of genotype and allele frequencies were observed only between IgA nephropathy and control group. However, because of the small size of the IgA nephropathy and thin GBM group, additional extensive studies are required to clarify the potential role of gene polymorphism to discriminate IgA nephropathy and thin GBM disease.

Key Words: 유전자다형성, IgA 신병증, 얇은사구체기저막병
Polymorphisms, IgA Nephropathy, Thin GBM disease