

〔原著論文〕 Association between HLA class II genotypes and IgA nephropathy in Japanese patients

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Summary

Background. The association between IgA nephropathy (IgAN) and serologically determined HLA-DR4 has been firmly established in various ethnic groups. The recent development of DNA typing of the HLA class II system has allowed precise determination of HLA genotypes, and provided new insights into the pathogenesis of this disorder. Here we analyzed HLA class II genotypes in Japanese patients with IgAN to determine the role of genetic factors in pathogenesis of this disease.

Patients and Methods. HLA class II genes were analyzed in 165 unrelated Japanese patients with biopsy-confirmed IgAN using polymerase chain reaction (PCR)-based sequence-specific oligonucleotide probe hybridization.

Results. HLA-DR4 correlated with IgAN in Japanese patients. DNA typing also showed a significant correlation between IgAN and HLA-DRB1*0405 and HLA-DRB1*1501 genotypes. We also found the correlation between the frequency of HLA class II genotypes and various clinical parameters. We found that HLA-DRB1*0405 and DQB1*0303 were associated with a broad range of clinical features including severity of renal dysfunction, and that HLA-DRB1*1501 was associated with proteinuria of >1g per day, and with high serum IgA concentrations.

Conclusion. We report here the association of IgAN with HLA-DRB1*0405, -DRB1*1501 and -DQB1*0303 in Japanese patients. The presence of these alleles correlated with distinct clinical findings, which may reflect heterogeneity of both the pathogenesis and genetic background of the disease.

Key words : IgA nephropathy, HLA class II, DNA typing, nephritogenic genes.