

## **THE INVESTIGATION OF HLA ANTIGENS OF AUTOIMMUNE HEPATITIS IN TAIWAN**

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**BACKGROUND/AIMS:** Genetic predisposition is known to be an important etiopathogenic factor of autoimmune hepatitis (AIH). Increased frequency of HLA-B8, DR3 and DR4 has been well-studied in western countries and Japan, but no HLA-typing data of AIH patients in Taiwan has been investigated. We therefore investigated the HLA phenotypes and its frequency associated with the AIH patients.

**METHODS:** 22 AIH patients were enrolled as group 1. All were born in Taiwan, and had no history of blood transfusion. Group 2 consisted of 19 patients with chronic liver disease. Group 3 consisted of unrelated healthy subjects who were normal blood donors. All three groups were tested for HLA phenotypes (HLA-A, B, C, DR, DQ) using PCR-SSOP reverse technique. The statistical method used was Fisher's exact test.

**RESULTS:** (1) In group 1, more frequent HLA phenotypes were HLA DQ5 (50% ), CW7 (50%), All (50%), DR4 (36% ). (2) Only HLA-DQ5 was significantly more frequent in the AIH group compared with the control group (RR2.03, p=0.034). (3) In comparing group 1 and group 2, CW7, CW8, B60 and DQ5 appeared more frequently among AIH patients but were not statistically significant.(4) In our study, low frequency of A1 (n=2/22), B8 (n=1/22) and DR3(n=0/22) were noted compared with the reports from western countries. Only HLA-DR4 showed a higher rate in our AIH patients (n=8/22). (5) A2 DQ5 was the most common haplotype in AIH patients.

**DISCUSSION/CONCLUSIONS:** HLA-DQ5 was significantly more frequent among AIH patients in Taiwan, and HLA-A2DQ5 was the common haplotype. Except for HLA-DR4, the wellknown HLA-A1, B8 and DR3 reported in western countries were rare in our AIH patients.

**Key words:** Autoimmune hepatitis , HLA antigens.