

## **HLA-DRB1\*15021 Is the Predominant Allele in Japanese Patients with Juvenile Dermatomyositis.**

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**OBJECTIVE:** To investigate HLA molecules and genes in Japanese patients with juvenile dermatomyositis (JDM).

**METHODS:** Twelve patients (8 girls and 4 boys) with ages of onset between 3 and 15 years were included. HLA class I antigen phenotypes were serologically typed by the Terasaki-NIH standard method. DNA was extracted from peripheral blood leukocytes using the phenol-chloroform extraction procedure, and stored at -70 degrees C until use. Genomic DNA for HLA-DRB1, HLA-DQA1, and HLA-DQB1 alleles in JDM patients and controls was determined by the direct sequence method.

**RESULTS:** HLA-A24 and B52 were each detected in 7 cases (OR = 0.86, 5.02,  $p = 0.930$ ,  $0.006$ , respectively). HLA-DRB1\*15021 was observed in 7 patients. This was significantly more frequent than occurred in the controls (OR = 5.72,  $p = 0.002$ ). Seven patients out of 12 (58%) had the combination HLA-B52, DRB1\*15021, DQA1\*0103, and DQB1\*0601.

**CONCLUSION:** Our results suggest that the susceptibility gene for JDM either is HLA-DRB1\*15021 or is present near the HLA-DRB1 locus. This differs from previous reports that describe the association with HLA-DQA1\*0501 in Caucasian patients with JDM. The combination HLA-B52, DRB1\*15021, DQA1\*0103, and DQB1\*0601 may contribute to the pathogenesis of JDM in Japanese patients.