

In Vitro Identification and Activation of Lymphocytes Specific for Melanocytes

Rebat M. Halder, M.D.
*Professor, Department of Dermatology
Howard University School of Medicine*

Our laboratory has recently completed a study on HLA-DB31 associations with vitiligo. HLA typing can give information on a person's or ethnic group's susceptibility to certain diseases including vitiligo.

DRBI alleles were evaluated in a cohort of vitiligo patients at Howard University Hospital, and controls from the local community. The patient group was predominantly African American (73%). Using Logistic Regression analysis, our data showed statistically significant associations of vitiligo with DRBI*04, *15, *13, and *07. These results are consistent with other reports of a significant positive association of vitiligo with DRBI*04, *06, and *07. This is the first report of a DRBI*02 association with this disease. No significant differences were found between the African American and the Non-African American vitiligo patients in the distribution of DR associations. The most significant association was with DRBI*04. The most frequent DR4 allele in African Americans was DRBI*041, occurring in 50% whereas DRBI*047 was most frequent among Non-African American vitiligo patients. In DRB associations, the DRBI*1031 was the most frequent allele (42%); *1503 was frequent among DR15 (47%). The non-DR4 associations with vitiligo were not maintained when the patient populations were evaluated in ethnic groups. The finding of no significant differences between ethnic groups in the association of DRBI with vitiligo is consistent with reports of other investigations. Although 74% of our patients had a positive family history of autoimmune disease, we found no significant association of DRBI alleles with family history of autoimmune disease, or age of disease onset. The consistent finding of DR associations with vitiligo across different ethnic groups strongly support an autoimmune etiology in a subset of patients with this disease.