

INCREASED PLASMA LEVELS OF SOLUBLE HLA-DR (sHLA-DR) IN PATIENTS WITH ANTERIOR UVEITIS (AU). ((A. Neubert#, V. Rebmann*, K.-P. Steuhl#, A. Heiligenhaus#, H. Grosse-Wilde*)) #Department of Ophthalmology and *Department of Immunology, University Essen, Germany.

Purpose: Serum sHLA-II antigen levels are found to be increased in various inflammatory and autoimmune diseases, and are discussed to modulate the immune response. Therefore, we studied sHLA-DR plasma levels in 54 patients with AU and in 14 cases with Fuchs heterochromic cyclitis (FHC) and in a panel of 86 healthy individuals. The data obtained were correlated to disease activity.

Methods: The sHLA-DR plasma levels were measured by a standard ELISA format using affinity purified HLA-DR1 molecules as standard reagent. HLA class I typing of the patients was performed by serological techniques and HLA class II by DNA analysis. **Results:** Nineteen out of 54 AU patients (35.2%), none of FHC patients (0%) and 4 out of 86 healthy individuals (4.7%) were HLA-B27 positive. The HLA class II allele frequencies of the patients did not significantly differ from that of healthy controls. The mean sHLA-DR plasma levels of AU patients with $2.9 (\pm 0.41 \text{ SEM}) \mu\text{g/ml}$ were significantly ($p < 0.01$) increased compared to the control panel ($1.48 \pm 0.19 \text{ SEM } \mu\text{g/ml}$) and to the patients with FHC ($1.56 \pm 0.3 \mu\text{g/ml}$). However, sHLA-DR levels did not correlate with AU disease activity and were not found to be influenced by corticosteroid therapy. There was no difference in sHLA-DR levels between HLA-B27 positive and negative AU patients. **Conclusions:** In AU patients the sHLA-DR levels are significantly elevated compared to patients with FHC and healthy individuals. This might indicate a systemic immune activation in this diseases.