



THE OCULAR IMMUNOLOGY
AND UVEITIS FOUNDATION

Dedicated to Eye Disease Cure and Education

Immunohistochemistry of Vitreous Cells from Patients with Posterior Uveitis

C. Stephen Foster, MD

We analyzed vitreous specimens from 4 patients undergoing diagnostic and/or therapeutic pars plana vitrectomy, employing immunohistochemical staining of the vitreous cells with monoclonal antibodies directed against T and B cell subsets, anti-CD 25 (activation marker) molecule, and the adhesion molecule, VCAM-1. T cells were abundant in all 4 specimens, and in specimens from 2 of the patients who had retinal vasculitis, Interleukin 2 receptor was significantly expressed on the cells. VCAM-1 was expressed on the cells from all of the samples.

We conclude that these locally activated vitreal inflammatory cells play an important role in the pathogenesis of immunologically mediated posterior uveitis, and, further, believe that the finding of such cells additionally supports the idea that therapeutic vitrectomy in the care of patients with frequently recurrent, chronic posterior uveitis may exert much of its therapeutic benefit through the removal of such cells which reside on the vitreous fibrils and elaborate amplifying inflammatory cytokines.