150

Effect of Ganciclovir on Cytomegalovius Disease in Renal Transplant Recipients

K.Meigata, R.Hondo, S.Inoue, H.Sugimoto, T.Nagao, H.Uchida.
Department of Organ Transplantation, Institute of Medical Science, University of Tokyo, Department of Microbiology, Institute of Public Health, Tokyo, Japan

Cytomegalovirus (CMV) is frequently reactivated in immunosuppressed patients, and produces various clinical manifestations including low grade fever, interstitial pneumonia, and hepatitis. We report our experience with the use of Ganciclovir (GCV) for CMV disease following renal transplantation, and serial estimation of viral DNA copy number (VCN) in fresh urine specimens using polymerase chain reaction amplification and hybridization-fluoroscan technique. In a seropositive patient with acute rejection, we added GCV (3-6mg/kg/d for 6 weeks) to steroid pulse therapy. VCN decreased from $10^{1.7}$/ml to less than $10^{0.7}$/ml and increased to $10^{4.7}$/ml over 4 months, and the patient developed pneumonia. VCN remained over $10^{4.0}$/ml for 2 months after CMV hyper-immune globulin treatment (5g/d for 8 days). It was approximately 9 months before VCN was reduced to $10^{1.7}$/ml. In a case with elevated liver enzymes, VCN reached $10^{4.3}$/ml and fell to less than $10^{1.7}$/ml after GCV administration (3 mg /kg/d for 2 weeks), in pararell with normalization of liver enzymes. A seropositive patient with persistent low grade fever posttansplant was given GCV (11mg/kg/day for 2weeks), and VCN decreased from $10^{2.7}$/ml to less than $10^{1.7}$/ml; however CMV was reactivated to $10^{2.7}$/ml 2 months later. In conclusion, GCV causes suppression of CMV activity. Serial estimation of VCN in fresh urine samples has proved to be a reliable method for detection of CMV reactivation. In patients with severe clinical manifestations, VCN was greater than $10^{4.0}$/ml.