Objective: To describe sign, symptom, ocular manifestations, T-lymphocyte CD4 level, treatment, visual acuity and complication of CMVR in HIV-infected pediatric patients in Chiang Mai University Hospital.

Design: Retrospective Cohort Study

Methods: The patient records of 36 HIV-infected pediatric patients who had ophthalmologic examination between January 2002 and December 2012 were reviewed.

Results: Of 41 eyes of 36 patients, 14 eyes (11 patients) had CMVR, 21 eyes (21 patients) had normal eye and 6 eyes (4 patients) had other eye diseases (optic nerve atrophy, papilledema, Toxoplasmosis and HIV retinopathy). The average age (mean±SD) was 128.0±45.9 months in CMVR group and 114.3±43.2 months in normal group. The mean T-lymphocyte CD4 level were 23.7 cell/mm³ (range 5 – 49) in CMVR group (new diagnosis), and 232.1 cell/mm³ in normal group. The log MAR visual acuity was 1.27±1.1 in CMVR group and 0.11±0.1 in normal group. Patients received highly active antiretroviral therapy in 81% of CMVR group and 95% of normal group. Visual impairment was the most common presentation. The clinical manifestations were opacification of the retina with areas of hemorrhage, exudate and necrosis, periphlebitis, frosted branch angiitis and vitritis.

Conclusion: CMVR is associated with T-lymphocyte CD4 < 50 cell/mm³. Visual impairment is the most common presentation. Routine eye screening should be done for early diagnosis and treatment to decrease complications and improve the quality of life.