

# Cytomegalovirus (CMV) Retinitis in HIV - Infected Pediatric Patients in Chiang Mai University Hospital

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**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 $\pm$ SD) was 128.0 $\pm$ 45.9 months in CMVR group and 114.3 $\pm$ 43.2 months in normal group. The mean T-lymphocyte CD4 level were 23.7 cell/mm<sup>3</sup> (range 5 – 49) in CMVR group (new diagnosis), and 232.1 cell/mm<sup>3</sup> in normal group. The log MAR visual acuity was 1.27 $\pm$ 1.1 in CMVR group and 0.11 $\pm$ 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/mm<sup>3</sup>. 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.