

## Clinical Outcome and Prognostic Factors of Retinoblastoma Patients in Siriraj Hospital

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**Background:** Outcome of retinoblastoma in Thailand is unfavorable compared to that of developed countries. This study aims at determining whether the clinical outcome of patients with retinoblastoma significantly improved after the implementation of new therapeutic approaches and which clinical factors affecting survival and globe-saving outcome.

**Methods:** The medical records of patients newly diagnosed with retinoblastoma and treated at Siriraj Hospital between January 2005 and December 2018 were retrospectively reviewed. The clinical data, treatments and outcomes were collected and analyzed.

**Results:** Of all 144 patients (194 eyes), leukocoria was the most common presenting features (72%); 140 eyes were in group E (72%). The median age of presentation was 22.7 months. Of all 149 enucleated eyes, 35 eyes had high-risk histopathological feature, mostly massive choroidal invasion; 45 eyes (23.2%) can be salvaged. The 5-year overall survival rate was 90.3%, improving compared to the previous study (73.1-78%). The estimate enucleation-free was 49% at 1 year, and 22% at 5 years. In non-advanced stage eyes (Group A,B,C) the enucleation-free rate was 97% at 1 year, and 88% at 5 years. Factors associated with survival rate were delayed diagnosis, HR was 5.8(95%CI 1.637, 20.579) and buphthalmos, HR was 12.57(95%CI 3.936, 40.153). Factors associated with enucleation free rate were visual acuity, ectopion uveae, retinal detachment HR

was 1.98(95%CI 1.068, 3.667), 2.63(95%CI 1.146, 6.039), and 2.15(95%CI 1.396, 3.302) respectively.

**Conclusion:** Survival rates and globe saving rate appeared to improve. However, the presentation with advanced stage was still the major hindrance. Further studies in larger cohort and longer follow up are warranted.

