Incidence, Trends and Long-Term Follow up outcome of Retinoblastoma in Thailand 1990-2010

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Background and objective : Retinoblastoma is rare but the most common primary intraocular malignancy in childhood. To elucidate the true incidence, trend and survival, we study retinoblastoma in a large population and long-term population-based cancer registration study. This study aim to describe the incidences, trends and survival characteristics in Khon Kaen, Songkhla and Chiang Mai during 1990-2010.

Methods: Data of children with retinoblastoma diagnosed during 1990-2010 from data set of Khon Kaen, Songkhla and Chiang Mai cancer registries were retrieved. Retinoblastoma was defined by using the International Classification of Disease for Oncology version 3 code 9510/0-9510/3. Incidence rate was analyzed using the standard method according to the International Association of Cancer Registry. The Kaplan-Meier method was used to calculate the cumulative survival rate.

Result: A total of 131 cases were included (Khon Kaen 32, Chiang Mai 73, Songkhla 26). The respective ASRs in Chiang Mai, Khon Kaen in Songkhla are 15.5, 5.4,nd 6.1 per million. The overall ASRs of was 5.4 per million. There was no change of incidence trend. The 5-year overall survival rate was 55 [95%CI 0.45-0.66]

Conclusion: The incidence of retinoblastoma in Chiang Mai was higher than those of Songkhla and Khon Kaen with unclear explanation. The ASR and survival in Thailand was less than those in resource-rich countries.