Inferior clinical outcomes of pediatric rhabdomyosarcoma in Thailand: A 16-year experience in a single tertiary institution

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April 16, 2024

Abstract

Abstract Background: There is limited data available on the treatment outcomes of pediatric rhabdomyosarcoma (RMS) in Asian populations. Therefore, we aimed to review the baseline characteristics, clinical outcomes, and prognostic factors in children with RMS from Thailand. Methods: The data of children under 15 years of age diagnosed with RMS between 2003 and 2019 from a large tertiary hospital in Southern Thailand were retrospectively reviewed. Descriptive statistics were utilized to describe the clinical characteristics. The Kaplan–Meier method was utilized to estimate survival. Cox proportional hazards regression analysis was utilized to determine prognostic factors that affect survival. Results: A total of 42 children RMS were included in this study. The median age at diagnosis was 6.4 years (IQR, 2.4–10.2). Among these patients, 11 (26%) were older than 10 years, and 13 (31%) presented with metastatic disease at diagnosis. The 5-year overall survival (OS) rate was 39% for all children. Age greater than 10 years (hazard ratio (HR): 3.3, 95% CI: 1.2–9.2) and metastatic disease at diagnosis (hazard ratio (HR): 2.8, 95% CI: 1.1–7.5) were independently associated with poorer survival. The 3-year OS for children with metastatic disease (stage IV) was 15% (95% CI: 4.3–55). Conclusion: The percentage of metastatic disease in our cohort was higher than that in previous reports and may have contributed to a poorer outcome. Age greater than 10 years and metastatic disease at diagnosis were noted as adverse prognostic factors.

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