Clinical study of retinoblastoma in Mongolia

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Aim: This study aims to describe the clinical characteristics and treatment outcome of retinoblastoma in Mongolian children.

Methods: Data of all children diagnosed with retinoblastoma at the National Center for Maternal and Child Health of Mongolia from 1987 to January 2017 were reviewed retrospectively and prospectively. The ICRB classification was used. Survival characteristics of the cohort were analyzed.

Results: Retinoblastoma was diagnosed in 100 eyes of 79 cases during the study period. Median age of diagnosis was 23.2±5.8 months. There were no differences in sex ratio, and 21 cases (27%) were bilateral. 52 (66%) patients were from rural areas. The more frequent clinical presentations were leukocoria in 64 (82%) patients, strabismus in 34 (44%) patients, and unilateral mydriasis in 35 (42%) patients and glaucoma in 26 (32%) patients. 69 (87.3%) patients were diagnosed with classification D or worse when presented to us. Due to late diagnosis in the majority of cases, unilateral and bilateral enucleation were performed in 58 (58%) eyes and 26 (26%) eyes, respectively; exenteration was done in three (3%) eyes, intravenous chemotherapy was done (11%) eyes and laser was done (3%) eyes. At the time of last follow-up, 72 (93.1%) patients were alive, six (7%) patients were dead, and seven (9%) patients had lost to follow-up or unknown vital status. The mean follow-up period was 144.1±16.3 (95% CI 122.6-165.5) months (range, 15-365 months). In five cases with immunohistochemistry analysis in the eye specimen, neuron-specific enolase-, Ki-67 protein, and B-cell lymphoma 2-positive cells were found in all five (100%) cases and Rb protein was detected in three (60%) cases.

Conclusion: These data show the importance of early pediatric eye examinations and better treatment of retinoblastoma in children younger than three years in Mongolia.

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