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Second primary tumors in retinoblastoma survivors: a study of 7 Asian Indian patients

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Abstract

Purpose: To assess the incidence, types, and outcomes of second primary tumors (SPT) in cases of retinoblastoma (RB) from a referral Tertiary eye care center METHODS: Retrospective chart review of 7 cases RESULTS: All 7 (100%) cases had bilateral RB at presentation. The mean age at diagnosis of RB was 16 months (median 7 months; range 5-72 months). Treatment of RB with intravenous chemotherapy was noted in 3 (43%) patients, 1 (14%) patient had received external beam radiotherapy (EBRT) to the orbit, 1 (14%) patient had received a combination of chemotherapy and orbital EBRT, while 4 (57%) patients had undergone primary enucleation of the worse eye and focal treatment of the better eye. The mean age at detection of SPT was 15 years (median 8 years; range 6-46 years). The mean time interval between diagnosis of RB and SPT was 13 years (median 7 years; range 1-41 years). The SPT's included osteosarcoma of long bone (n = 2), eyelid sebaceous gland carcinoma (n = 2), ventricular ependymoma (n = 1), orbital neuroblastoma (n = 1), and acute lymphoblastic leukemia (n = 1). All patients received treatment for the SPT with either surgical excision (n = 2), intravenous chemotherapy (n = 1), or a combination of

surgery/chemotherapy/radiotherapy (n = 4). Over a mean follow-up period of 8 years (median 8 years; range 4-11 years), one (14%) patient died, while other 6 (86%) patients are alive and well.

Conclusion: Though the incidence of SPT's in cases of RB is rare, life-long follow-up is mandatory in at-risk patients.

Keywords: Eye; Retinoblastoma; Second cancer; Second primary tumor; Tumor.

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