Outcome of Retinoblastoma with Vitreous Seeds

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Purpose: To analyze the outcome of retinoblastoma with vitreous seeds managed with high-dose chemotherapy coupled with periocular chemotherapy.

Method: Retrospective interventional series of 137 consecutive eyes with retinoblastoma with vitreous seeds managed with high-dose chemotherapy (carboplatin +etoposide + vincristine) and periocular carboplatin over 10 years. Tumor and vitreous seeds regression were the outcome measures. After excluding the better eye of bilateral tumors with vitreous seeds, 101 eyes were included for the final analysis.

Results: Chemotherapy cycles ranged from 6 to 12 (median 9); 63 (47%) eyes with diffuse vitreous seeds received concurrent periocular carboplatin injections (median 6). The mean follow-up duration was 44 months. Complete regression of the tumor and vitreous seeds was seen in 77 (77%) at the final follow-up, while 24 underwent enucleation.

Conclusion: Protocol-based intensive management with high-dose chemotherapy and periocular carboplatin provides for gratifying outcome in advanced retinoblastoma with vitreous seeds.