Varied toxicity profile of intravitreal melphalan in two retinoblastoma eyes

Çaliş Karanfil, Feyza; Gündüz, Ahmet Kaan; Atilla, Huban; Şahli, Esra

Department of Ophthalmology, Ankara University Faculty of Medicine, Ankara, Turkey

Anti-Cancer Drugs ():10.1097/CAD.0000000000001646, July 17, 2024. |

DOI: 10.1097/CAD.0000000000001646

Abstract

Retinoblastoma (RB) is the most common primary intraocular malignant tumor of childhood. Persistent or recurrent vitreous seeding is the most common reason for therapeutic failure in advanced RB. Intravitreal chemotherapy has emerged as an effective therapy for vitreous seeding in RB, with a generally acceptable safety profile. However, intravitreal chemotherapeutics, especially melphalan, can cause toxicity that may progress to total retinal atrophy. In this report, we present two cases with retinal melphalan toxicity that had varied clinical findings. One of the cases had extensive retinal atrophy that was demonstrated by hand-held spectral domain optical coherence tomography (HHSD-OCT), while the other had normal retinal anatomy on HHSD-OCT but markedly diminished retinal function on flash electroretinography.