Purpose: The aim of this study is to show our first experience and results of the use of super selective intra arterial chemotherapy (SIAC) with melphalan in the treatment of patients with advanced retinoblastoma.

Methods: Review of medical records of 2 patients who were diagnosed retinoblastoma and subsequently treated with SIAC in Cerrahpasa Medical Faculty Ophthalmology Department.

Results: Both patients showed complete regression after 2 cycles of. Case 1, a 12 month old female, had a unilateral sporadic macular cavitary retinoblastoma which was classified as group D according to international classification of retinoblastoma (ICRB) showed diffuse choroidal nonperfusion after second treatment. Case 2, a 14 month old female, who had diagnosed as unilateral sporadic group E retinoblastoma (ICRB) with diffuse vitreous seeds. The tumor thickness decreased from 9.50 mm to 3.00 mm and all vitreous seeds calcified. No systemic or cranial side effects were observed.

Conclusion: Recently, treatment of retinoblastoma with SIAC gained popularity in developed countries. Our initial results show that SAIC could be applied successfully in developing countries and SIAC is an option for unilateral advanced retinoblastoma patients to avoid enucleation or systemic chemotherapy.