Retina Roundup

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1.Retina 2024 Jan 1;44(1):144-150. doi: 10.1097/IAE.0000000000003923.

Secondary salvage intravenous chemotherapy for refractory/ Recurrent Retinoblastoma- A Study of 41 Eyes

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Purpose:

To determine the efficacy of secondary salvage intravenous chemotherapy (IVC) for refractory/recurrent retinoblastoma.

Methods:

Retrospective, nonrandomized interventional case series of 41 eyes of 33 patients with recurrent retinoblastoma.

Results:

Of the 33 patients, mean age at the time of commencement of salvage IVC was 5 years (median, 5 years; range, 2–8 years). At presentation, recurrent retinoblastoma in 41 eyes of 33 patients was classified by the International Classification of Retinoblastoma as Group B (n = 7; 17%), Group C (n = 3; 7%), Group D (n = 16; 39%), and Group E (n = 15; 37%). All patients received 6 cycles of IVC as primary treatment. The indication for secondary salvage IVC with focal treatment included recurrent solid tumor (n = 36; 88%), subretinal seeds (n = 22; 54%), or persistent solid tumor (n = 2; 5%). Mean number of cycles of salvage IVC were 8 (median, 6; range, 6–18). Over a mean follow-up period of 43 months (median, 43 months; range, 12–96 months) after completion of salvage IVC, globe salvage was achieved in 22 (54%) eyes, 1 (3%) patient had histopathology-proven bone metastasis, and 1 (3%) patient died because of presumed metastasis.

Conclusion:

Secondary salvage IVC with appropriate focal treatment allows globe salvage in 54% eyes with refractory/recurrent retinoblastoma and thus serves as an alternative to intraarterial chemotherapy or enucleation.

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2.Retina. 2024 Jan 1;44(1):175-178. doi: 10.1097/IAE.0000000000003985.

Modification of the Suprachoroidal Buckling Technique for the Treatment of Rhegmatogenous Retinal Detachment

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Abstract

Purpose:
To describe modification of the suprachoroidal buckling technique for the treatment of rhegmatogenous retinal detachment (RRD), which may improve the safety profile.

Methods:
A single-surgeon foot-pedal-controlled automated suprachoroidal injection (SCI) of sodium hyaluronate 1%, namely ProVisc (Alcon Laboratories, Fort Worth, TX) was used for the treatment of RRD. MicroDose Injection Kit (MedOne Surgical, Sarasota, FL) including a connector and a 1-mL syringe, designed for subretinal injection, was used to adapt Constellation Vision System (Alcon Laboratories) console for SCI of ProVisc from the 1-mL syringe.

Results:
This approach enables better surgeon control during SCI. Three highly myopic eyes of three patients with primary macula-on RRD and single superior peripheral retinal break were treated. Complete retinal reattachment was achieved in all eyes without complications.

Conclusion:
Injecting ProVisc under foot-pedal control provides a more precise and potentially safer suprachoroidal buckling technique compared with the manual technique with more variable injection speed and pressure.

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Implications of complete posterior vitreous detachment in eyes with central retinal vein occlusion.

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Background/Purpose:
To evaluate the status of the posterior vitreous hyaloid on presenting optical coherence tomography images of the macula and its relationship to clinical characteristics, treatment patterns, and outcomes in eyes with central retinal vein occlusion.

Methods:
This is a retrospective longitudinal cohort study of consecutive patients with acute, treatment-naive central retinal vein occlusion diagnosed between 2009 and 2021 who had at least 12 months of follow-up. Clinical characteristics, treatment patterns, and outcomes were analyzed between eyes stratified based on the presence or absence of a complete posterior vitreous detachment (PVD) on optical coherence tomography at presentation.

Results:
Of 102 acute, treatment-naive central retinal vein occlusions identified, 52 (51%) had complete PVD at presentation and 50 (49%) did not. Central subfield thickness was significantly lower in those with complete PVD (12 months: 284.9 ± 122.9 μm vs. 426.8 ± 286.4 μm, $P < 0.001$; last follow-up: 278 ± 127.9 vs. 372.8 ± 191.0 μm, $P = 0.022$). One-year intravitreal injection burden was significantly less for those with a complete PVD than those without (5.1 ± 3.6 injections vs. 6.7 ± 3.3 injections, $P = 0.013$).

Conclusion:
Central retinal vein occlusion with complete PVD on presentation had significantly lower central subfield thickness and 1-year injection burden. Assessment of the vitreomacular interface in central retinal vein occlusion may serve as a prognostic imaging biomarker.

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Familial retinoblastoma: variations in clinical presentation and management based on paternal versus maternal inheritance

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Abstract

Background:

Several studies have demonstrated the effect of parent-of-origin on retinoblastoma penetrance. The purpose of the current study was to assess differences in clinical presentation of paternally versus maternally inherited retinoblastoma.

Methods:

The clinical records of all children with familial retinoblastoma treated on a tertiary Ocular Oncology Service between December 1975 and May 2020 were reviewed retrospectively.

Results:

A total of 179 patients with familial retinoblastoma were included. Paternal inheritance (PI) was identified in 109 (61%) patients and maternal inheritance (MI) in 70 patients (39%). A comparison (PI vs MI) revealed PI patients were older at presentation (57.2 vs 24.4 months [P = 0.002]) with no difference in patient sex (53% females vs 57% males [P = 0.606]) or number of family members affected (3.2 vs 3.0 family members [P = 0.255]). PI patients had more advanced classification according to the International Classification of Retinoblastoma (ICRB) (group E: 31% vs 8% [P = 0.012)] and greater largest tumor in basal diameter (9.0 vs 6.2 mm [P = 0.040]) and thickness (5.6 vs 4.0 mm [P = 0.038]); they were also less likely to be located in the macula (40% vs 60% [P = 0.004]). There was no difference in tumor laterality (69% vs 64% bilaterality [P = 0.530]). PI patients required enucleation more frequently (34% vs 14% [P = 0.007]). There was no difference in need for plaque radiotherapy (P = 0.86) or chemotherapy (P = 0.85). One PI patient developed metastatic retinoblastoma, and there were no retinoblastoma-related deaths.

Conclusions:

Patients with paternally inherited retinoblastoma presented at an older age, with larger, more peripheral tumors and more advanced ICRB group, and were more likely to require enucleation compared to those with maternally inherited retinoblastoma.

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Long-term results of treatment of neovascular age-related macular degeneration using antiangiogenic drugs: A review of the literature

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Abstract

Age-related macular degeneration (AMD) is one of the main causes of visual acuity (VA) loss in people over 50 years of age worldwide, with neovascular AMD (nAMD) accounting for 80% of cases of severe vision loss due to this disease. Anti-vascular endothelial growth factor (anti-VEGF) drugs have been used for the treatment of this disease for more than a decade, changing drastically the visual prognosis of these patients. However, initial studies reporting data on outcomes were short term. Currently, there are different series published on the long-term results of AMD after treatment with anti-VEGF, and the aim of this review is to synthesize these results. The mean follow-up of the included studies was 8.2 years (range 5-12 years). The mean initial VA was 55.3 letters in the Early Treatment Diabetic Retinopathy Study (ETDRS) (range 45.6-65) and the mean final VA was 50.1 letters (range 33.0-64.3), with a mean loss of 5.2 letters. At the end of follow-up, 29.4% of the patients maintained a VA > 70 letters. The 67.9% of patients remained stable at the end of follow-up (< 15 letter loss), with a severe loss (≥ 15 letters) of 30.1%. Fibrosis and atrophy were the main causes of long-term VA loss, occurring at the end of follow-up in 52.5% and 60.5%, respectively.

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