

Ophthalmology[®]

Retina

Volume 2, Number 3, March 2018

www.opthalmologyretina.org

Pneumatic Displacement of Submacular Hemorrhage with Subretinal Air and Tissue Plasminogen Activator: Initial United States Experience

Sumit Sharma, MD, Jaya B. Kumar, MD, Judy E. Kim, MD, John Thordsen, MD, Pouya Dayani, MD, Michael Ober, MD, Tamer H. Mahmoud, MD, PhD

Purpose: To present the initial multicenter experience of using subretinal air injection in combination with tissue plasminogen activator (tPA) at the time of pars plana vitrectomy (PPV) to displace submacular hemorrhage (SMH).

Design: Retrospective, noncomparative, interventional case series.

Participants: Patients with SMH resulting from age-related macular degeneration or polypoidal choroidal vasculopathy.

Methods: Chart review of patients who underwent displacement of SMH with PPV, subretinal injection of air and tPA (125 mg/mL), partial fluid–air exchange with gas tamponade, and preoperative, intraoperative, or postoperative intravitreal injection of anti–vascular endothelial growth factor agent at 5 sites in the United States. None of the surgeons had prior experience with using subretinal air.

Main Outcome Measures: Frequency and extent of SMH displacement, preoperative and postoperative visual acuities and retinal thickness, and postoperative complications.

Results: Twenty-four eyes of 24 patients were included (11 men; mean age, 79.1 years) with a mean follow-up of 12.5 months (range, 3–28 months). At 3 months after surgery, complete displacement of SMH from the foveal center was achieved in 24 eyes (100%), displaced beyond the arcades in 75% and beyond the equator in 20%. Residual subretinal pigment epithelial hemorrhage was seen in 5 eyes (20.8%). Mean preoperative and postoperative visual acuity was 1.95 logarithm of the minimum angle of resolution (logMAR; Snellen equivalent, 20/1783) and 0.85 logMAR (Snellen equivalent, 20/141; $P < 0.0001$), respectively. Visual acuity improved in 23 eyes (95.8%) and was unchanged in 1 eye. Mean central retinal thickness improved from 463.7 μm before surgery to 311.3 μm at the final visit ($P = 0.026$).

Conclusions: This initial experience of injecting subretinal air at the time of tPA injection during PPV showed the technique to be effective, with high consistency to displace SMH away from the fovea and even out to the periphery, and resulted in improved VA and retinal thickness. Some cases of subretinal pigment epithelial hemorrhage also benefit from this technique.

Ophthalmology Retina 2018;2:180-186.

Increased Reoperation Rate in Surgical Treatment of Rhegmatogenous Retinal Detachment with Coexistent Macular Hole

Mehdi Najafi, MD, PhD, Jamin S. Brown, MD, Kevin I. Rosenberg, MD

Purpose: To examine the surgical outcomes in patients with coexistent macular hole (MH) and rhegmatogenous retinal detachment (RRD).

Design: Retrospective case series.

Participants: All patients who underwent surgical repair of concomitant MH and retinal detachment (MHRD) between January 2014 and December 2016 in our facility were examined. At least 1 retinal break was noted in all MHRD cases. Exclusion criteria included MHRD related to high myopia without peripheral retinal tears.

Methods: Retrospective chart review.

Main Outcome Measures: Data collected included presence of proliferative vitreoretinopathy (PVR) and classification at time of surgical repair, details of surgical repair including whether internal limiting membrane (ILM) peeling was achieved, type of ILM staining used, presence of retinal detachment (RD) in the fellow eye, and duration of follow-up. Outcomes evaluated included visual acuity comparisons, reoperation rate, final anatomic success, and MH closure rate.

Results: Over the study period, MHRD cases accounted for 17 of 745 (2.3%) of all repaired RDs in our practice. Proliferative vitreoretinopathy was present in 53% of MHRD cases. Reoperation rates for MHRD were significantly higher than our practice average for all RD repairs (29% vs. 9.7%; $P = 0.01$). Final anatomic success with RD was achieved in 100% of patients. Internal limiting membrane peeling was performed in 15 of 17 patients. Macular hole closure rate was 71% after initial surgery. Although 82% of patients experience equal or improved vision, only 24% of patients achieved visual acuity better than 20/80. Retinal detachment in the contralateral eye was noted in 3 of 16 patients (19%) included before initial presentation or during the follow-up period.

Conclusions: Visual outcomes in MHRD cases were underwhelming because of high rates of presentation with PVR macula-off RRD, high reoperation rates, and relatively low MH closure rates. We suggest aggressive surgical techniques to repair MHRD.

Ophthalmology Retina 2018;2:187-191.

Surgical Outcomes of Epiretinal Membranes in Patients with a History of Well-Controlled Preoperative Uveitis

Prethy Rao, MD, MPH, Bozho Todorich, MD, PhD, Yoshihiro Yonekawa, MD, Jay Wang, MD, Lucia Sobrin, MD, MPH, Lisa J. Faia, MD

Purpose: To determine surgical outcomes in patients with uveitis who underwent surgery for epiretinal membrane.

Design: Multicenter, interventional, retrospective, consecutive case series.

Subjects: Patients with a history of controlled uveitis and concurrent visually significant epiretinal membrane.

Methods: All eyes underwent 23-gauge pars plana vitrectomy with membrane and internal limiting membrane peeling between 2011 and 2015. Demographic data, visual acuity, slit lamp and fundoscopic examination, and optical coherence tomography were reviewed preoperatively and postoperatively.

Main Outcome Measures: Visual acuity, mean central foveal thickness, macular cube volume, and uveitic activity preoperatively and postoperatively at 1, 3, and 6 months.

Results: Fifteen patients (17 eyes) were included. The mean follow-up duration was 23.2 months. Seventeen eyes (88.2%) received intravenous methylprednisolone and 10 eyes (58.8%) received intraocular steroids at the time of surgery. There was a significant improvement in mean central foveal thickness (517 vs. 371 microns; $P = 0.01$) and macular cube volume (12.1 vs. 9.4 mm³; $P = 0.01$) 6 months postoperatively. There were no epiretinal membrane recurrences. There was a trend toward improved mean postoperative visual acuity at 6 months (0.8 [± 0.6] vs. 0.6 [± 0.6] logarithm of the minimum angle of resolution units; $P = 0.36$). All eyes were inactive at the final visit, but 5 eyes (29.4%) required further immunomodulatory therapy postoperatively. One eye developed increased intraocular pressure that required topical therapy.

Conclusion: Eyes with a history of controlled uveitis have low surgical recurrence rates that are comparable with those without uveitis. Most patients do not require escalation of immunomodulatory therapy after surgery.

Ophthalmology Retina 2018;2:192-196.

Persistent Diplopia in Primary Position after Pars Plana Vitrectomy with Encircling Band in Rhegmatogenous Retinal Detachment

Javier Navarrete-Sanchis, MD, PhD, Leticia Ortega-Evangelio, MD, FEBO, Juan Miguel Tomás-Torrent, MD, PhD

Purpose: To evaluate the incidence of persistent diplopia in primary position after encircling band procedures with pars plana vitrectomy (PPV) and to report the outcomes.

Design: Observational, retrospective study.

Participants: One hundred sixteen patients who underwent successful rhegmatogenous retinal detachment (RRD) at our center from 2009 through 2014.

Methods: We studied all patients with RRD who underwent successful PPV with an encircling band. Patients reporting diplopia more than 2 months after retinal surgery were identified and evaluated by our strabismus colleagues.

Main Outcome Measures: Outcome measures included near and far deviation in prism diopters, degree of anisometropia, and visual acuity.

Results: Six of 116 patients reported persistent diplopia in primary position (5.2%). The diplopia most often was related to vertical microdeviations from 3 to 5 prism diopters, and it was managed adequately with prisms. The deviation remained unchanged during the follow-up, except in 1 patient.

Conclusions: Persistent diplopia associated to PPV with an encircling band has a low incidence and a small angle of deviation, and in our cases, it could be corrected successfully with prisms.

Ophthalmology Retina 2018;2:197-200.

Morphological and Angiographic Peripheral Retinal Changes in Patients with Age-Related Macular Degeneration

Zoran Vatavuk, PhD, Biljana Andrijević Derk, PhD, Tamara Knežević, MD, Marin Belak, MD, Milan Milošević, PhD, Thomas R. Friberg, MS, MD

Objective: To show morphologic and angiographic changes in the peripheral retina in patients with age-related macular degeneration (AMD) using wide-field fundus imaging, and to compare these findings with those from healthy controls.

Design: Cross-sectional clinical study.

Participants: In total, 152 patients with clinical AMD and 150 healthy controls (without AMD in either macula) were studied. Subjects were ≥ 50 years of age. Exclusion criteria were diabetic retinopathy, previous retinal surgery, high myopia, or dense cataract, as well as any retinal inflammatory, degenerative, or occlusive disease.

Methods: For both groups of patients, color fundus images were captured with the Optos P200 MA camera (Optos, Dunfermline, Scotland). Image analysis software was used to characterize each image. Angiography was performed on the AMD group only. Morphological and angiographic peripheral retinal changes were studied per the frequency of their occurrence, the affected peripheral retina (clock hours), and the localization of peripheral changes with regard to the eye equator. Statistical significance was defined at a level of $P < 0.05$.

Main Outcome Measures: Peripheral changes in both groups according to their type and frequency (percentage of eyes with detected retinal changes), the number of clock hours of affected peripheral retina, and their localization with regard to the equator of the eye.

Results: Drusen, reticular pigmentary changes, and paving stone degeneration occurred more frequently in the AMD group than in controls ($P < 0.001$, $P < 0.001$, and $P < 0.001$ respectively), whereas white without pressure occurred more frequently in the control group ($P = 0.027$). In both groups, peripheral retinal changes were observed peripheral to the equator in more than 40% of analyzed eyes. In control Croatian subjects, peripheral drusen were seen in 38% of subjects compared with 68% of AMD subjects.

Conclusion: Drusen, reticular pigmentary change, and paving stone degeneration occur significantly more frequently in subjects with AMD compared with controls. White without pressure degeneration was present in a high percentage of control subjects.

Ophthalmology Retina 2018;2:201-208.

Download English Version:

<https://daneshyari.com/en/article/8794027>

Download Persian Version:

<https://daneshyari.com/article/8794027>

[Daneshyari.com](https://daneshyari.com)