**INTRODUCTION**

Proliferative vitreoretinopathy (PVR) is characterized by cellular proliferation over and under the retina, leading to the formation of the epiretinal membranes, intraretinal fibrosis, and subretinal bands. PVR is the main reason of redetachment following successful surgery for rhegmatogenous retinal detachment (RRD). Various conditions such as trauma, large retinal breaks or giant retinal tears, and chronic retinal detachment are correlated with an increased risk of PVR.

Complete pars plana vitrectomy (PPV) and meticulous membrane peeling are necessary for successful management of PVR; however, residual traction or retinal shortening may lead to failure of the surgery for PVR. To achieve anatomical success in
these cases, relaxing retinotomies with/without retinectomy are often required. The procedure includes incision of the contracted retina, typically in the peripheral area to facilitate the attachment of normal retina, supported by silicon oil or long-standing gas tamponade with/without an encircling band. These cases, relaxing retinotomies with/without retinectomy are often required. The procedure includes incision of the contracted retina, typically in the peripheral area to facilitate the attachment of normal retina, supported by silicon oil or long-standing gas tamponade with/without an encircling band.3,6

The purpose of this study was to evaluate the anatomical and visual outcomes in the eyes that underwent retinotomy with/without retinectomy during PPV for RRD-associated advanced PVR.

Methods

This was a noncomparative retrospective study that was conducted based on patients’ chart reviews from 2010 to 2018 in Rassoul Akram Hospital, Tehran, Iran. Patients with RRD associated with advanced PVR (grade C) who underwent retinotomy and/or retinectomy during their PPV surgery was included. The PVR grading was based on the updated Retina Society Classification system.7 Patients with <3 months of the follow-up period, age <18 years, nonrhegmatogenous types of RD, and ocular inflammatory diseases were excluded. For all patients, best-corrected visual acuity (BCVA) measurement, slit-lamp biomicroscopy, checking intraocular pressure (IOP) by Goldmann tonometry, and fundus indirect ophthalmoscopy were performed at baseline and follow-up visits. The Ethics Committee of the Iran University of Medical Sciences approved the study (Ethics Committee code: IR.IUMS.REC.1397.622).

The four experienced vitreoretinal surgeons (K.G.F., M.M.P., A.S., F.A.) performed the surgeries. The surgery included standard PPV, including complete posterior vitreous removal and peripheral vitreous shaving. All preretinal membranes were peeled by micro forceps. Subretinal membranes were removed if it was necessary. Simultaneous scleral buckling (SB) surgery (placement of an encircling band, No. 240) was performed at the surgeon’s discretion. The retinotomy was performed as the last option when the retinal contracture or shortage prevented successful retinal reattachment. The retinectomy was performed anterior to the retinotomy when the retinotomy was significant and peripheral. The retinal reattachment was achieved by using perfluorocarbon liquid and silicone oil injections. Intraoperative complications, including iatrogenic retinal breaks and hemorrhages, were recorded.

All patients were followed up for at least 3 months after the surgery. The primary outcome measure was anatomical success (single surgery retinal reattachment rate), and the secondary outcome was functional (BCVA) success after the first surgery.

Statistical analysis

Data were analyzed using SPSS software version 24 (SPSS Inc., Chicago, IL, USA) and presented in form of mean ± standard deviation for continuous, and percentage for categorical variables. Data were analyzed using Fisher’s exact test to test categorical cross-distributions, and Wilcoxon signed-rank test to compare within groups. Multiple linear regression analysis was performed to evaluate the relationship and predictability of some independent variables on the recurrent RD as the dependent variable. A value of $P < 0.05$ was considered statistically significant.

Results

In total, 61 eyes of 61 patients were enrolled. Of them, 41 (67.2%) were male. The mean age was 48.56 ± 15.92 (range, 18–76) years. In 33 eyes (54.1%), the macula was detached. The mean follow-up time was 21.38 ± 23.08 (range, 3–84) months. Before the surgery, 26 eyes (42.6%) were phakic, 25 (41.0%) were pseudophakic, and 10 (16.4%) of them were aphakic. At baseline, 32 eyes (52.5%) had a history of prior RD surgery, including 26 eyes (42.6%) who had undergone previous PPV, 4 eyes (6.6%) with previous SB, and 2 eyes (3.3%) with previous PPV + SB. Preoperative BCVA was ≤6/30 in all eyes with a mean of 2.18 ± 0.63 logMAR. Baseline characteristics are summarized in Table 1.

The intraoperative factors are summarized in Table 2. Thirty-four eyes (55.7%) had SB surgery, and 21 eyes (34.4%) had phacoemulsification during the PPV surgery. Retinotomy was performed in all eyes. The mean angle of the retinotomy was 171.31 ± 79.15 (range, 90–360°). Thirty-two (52.5%) eyes had phacoemulsification during the PPV surgery. Retinotomy was performed in all eyes. The mean angle of the retinotomy was 171.31 ± 79.15 (range, 90–360°). Thirty-two (52.5%) eyes had phacoemulsification during the PPV surgery. Retinotomy was performed in all eyes. The mean angle of the retinotomy was 171.31 ± 79.15 (range, 90–360°). Thirty-two (52.5%)

| Table 1: Baseline patients and ocular characteristics |
|-------------|---|
| **n (%)**          |                |
| Age (years), mean±SD (range) | 48.56±15.92 (18–76) |
| Sex                      |                |
| Male                    | 41 (67.2)       |
| Female                  | 20 (32.8)       |
| BCVA (logMAR), mean±SD (range) | 2.18±0.63 (0.70–3.00) |
| Lens status              |                |
| Phakic                  | 26 (42.6)       |
| Aphakic                 | 10 (16.4)       |
| Pseudophakic            | 25 (41.0)       |
| RRD quadrants            |                |
| One quadrant (19 of them at the inferior quadrant) | 24 (39.3)       |
| Two quadrants           | 5 (8.2)         |
| Three quadrants         | 7 (11.5)        |
| Four quadrants          | 25 (41.0)       |
| Macular status          |                |
| Detached                | 33 (54.1)       |
| Attached                | 28 (45.9)       |
| PVR classification (Grade C) |                |
| Posterior (C, 1–12)     | 12 (19.7)       |
| Anterior (C, 1–12)      | 49 (80.3)       |
| Prior operations        |                |
| PPV                     | 26 (42.6)       |
| SB                      | 4 (6.6)         |
| PPV + SB                | 2 (3.3)         |
| Crystalline lens extraction | 35 (57.4)      |

SD: Standard deviation, n: Number, SD: Standard deviation, BCVA: Best-corrected visual acuity, RRD: Rhegmatogenous retinal detachment, PVR: Proliferative vitreoretinopathy, C, 1–12: Grade C, type posterior, 1–12 clock hours, C, 1–12: Grade C, type anterior, 1–12 clock hours, PPV: Pars plana vitrectomy, SB: Scleral buckling
Table 2: Intraoperative factors in eyes underwent retinotomy/retinectomy

| Procedures in addition to vitrectomy | n (%) |
|------------------------------------|-------|
| SB                                 | 34 (55.7) |
| Lensectomy                         | 21 (34.4) |
| Relaxing retinotomy location       |       |
| Inferior                           | 35 (57.4) |
| Temporal                           | 11 (18.0) |
| Superior                           | 4 (6.6) |
| Nasal                              | 3 (4.9) |
| All quadrants                      | 7 (11.5) |
| Missing                             | 1 (1.6) |

| Relaxing retinotomy size (°), mean±SD (range) |       |
|<180                                              | 29 (47.5) |
|≥180                                              | 32 (52.5) |
| Simultaneous retinectomy                       | 19 (31.1) |
| Intraocular tamponade                          | 61 (100) |
| Silicone oil                                    |       |
| Intraoperative complications                    |       |
| Iatrogenic retinal breaks                       | 13 (21.3) |
| Intraoperative hemorrhage                       | 0 |

n: Number, SB: Scleral buckling, SD: Standard deviation

eyes needed extensive (≥180°) retinotomy. Simultaneous retinectomy was performed in 19 eyes (31.1%).

There was no statistically significant difference for extensive retinotomy (≥180°) between preoperative anterior (27 of 49, 55.1%) and posterior (5 of 12, 41.7%) grades of PVR (P = 0.304).

Intraoperative extensive hemorrhagic complications were not reported in any eye. All of the eyes received silicone oil as intraocular tamponade.

After the first retinotomy surgery, the retina reattachment was achieved in 55 eyes, in the 1-month follow-up visit. From them, 45 eyes (73.8% of 61) remained attached (including both peripheral retina and macula together) during the next follow-up visits. RD recurrent in 16 eyes (including 6 eyes with recurrent RD at month 1 and 10 eyes with recurrent RD in the next follow-up visits, 26.2% of 61) with the mean time of 5.60 ± 4.01 (range, 1–14) months after the initial retinotomy surgery. In all eyes with recurrent RD, reattachment was achieved with the second surgery, and the retina remained attached during the mean follow-up of 13.80 ± 20.95 (range, 0–79) months after that. The mean follow-up time in this study was 21.38 ± 23.08 (range, 3–84) months from the initial surgery. In the multivariate analysis by multiple linear regression test, history of previous retinal surgery, lens status, RRD location, grade of PVR, number of posterior or anterior PVR clock hours, extension or location of retinotomy, SB surgery (in addition to PPV), and postoperation IOP did not have statistically significant relationships with the occurrence of recurrent RD [All P > 0.05, Table 3].

The final BCVA was 1.85 ± 0.71 (range, 0.50–3.00) logMAR at the last follow-up visit and increased significantly (P = 0.001, Wilcoxon signed-rank test) in comparison to the baseline (2.18 ± 0.63 logMAR). In the multivariate analysis by multiple linear regression test, the extension, and the location of retinotomy did not have statistically significant relationships with the BCVA changes (P = 0.299, and P = 0.214, respectively).

Two eyes (3.2%) had postoperative IOP of < 8 mmHg during follow-ups. However, both of these eyes were hypotonic before the surgery.

Further vitrectomy (the second operation) was performed in all eyes with recurrent RD (16 out of 61, 26.2%). In these eyes, the macula was detached in all cases.

In 21 eyes (34.4%), the silicone oil removal was performed after a mean time of 6.90 ± 5.29 (range, 1–21) months from silicone oil injection. Indications for silicone oil removal were secondary glaucoma, keratopathy, silicone oil emulsification, and the surgeon’s preference. Retina remained attached during at least 6 months of additional follow-up visits in all of these eyes.

Discussion

Retinotomy is used to relax intractable tractions and facilitate the retinal opposition to the retinal pigment epithelium. These tractions may be seen in PVR, proliferative diabetic, retinopathy, retinal incarceration, and situations with loss of retinal elasticity like high myopia. The retinotomy with/without retinectomy should be performed after complete membrane removal, because excessive retinotomy may lead to large retinal defects and subsequent retinal redetachment. In our study, the retinotomy was performed in RRD-associated advanced PVR (grade C or C) eyes during PPV surgery. In these patients after complete membrane removal, the retinotomy was performed due to retinal contracture or shortage preventing successful retinal reattachment. Relaxing retinotomy has been known as an effective surgical technique during vitrectomy in eyes with RD-associated advanced PVR. In this study, we evaluated the anatomical and functional outcomes of this surgical technique with its possible complications to assess the role of this technique in patients with RRD-associated advanced PVR.

In this study, 45 of 61 eyes (73.8%) achieved successful retinal attachment (as initial anatomical outcome) after the initial retinotomy surgery. After additional surgeries (due to recurrent RD after the initial retinotomy surgery), the final retinal reattachment (as the final anatomical outcome) was achieved in all eyes. The initial and final anatomical success rates are comparable with other similar previous studies [Table 4]. These differences may be attributed to the differences in patients’ age, follow-up duration, the extent of retinotomy in the primary procedure, grade and extent of PVR, and mechanism of RD.
Our results showed that the BCVA was significantly improved at the last follow-up visit in comparison to the baseline. Similar to this study, previous studies reported the final BCVA improved or at least remained stable in majority of the patients.  

Some previous studies showed that the size and location of retinotomy have no statistically significant effect on the rate of anatomic reattachment and final BCVA. In contrast, other studies showed retinotomy size is a risk factor against recovering visual function. In addition, excessive retinotomy may lead to large retinal defects or residual membranes and increases the likelihood of retinal redetachment. Hence, our preference was less aggressive retinotomy incisions. Here, we revealed the location and extension of retinotomy have no statistically significant effects on the rate of initial anatomical success and the BCVA changes. However, the postoperative anatomical and functional outcomes must be interpreted with consideration of the extent and severity of the baseline condition.

Previous studies revealed that tamponade with silicone oil has higher initial anatomic success rates than other tamponades (e.g., gas) in eyes that underwent retinotomy. Furthermore, some studies showed higher rates of postoperative hypotony in eyes with gas tamponade compared with silicone-injected eyes. Therefore, in this study we used silicone oil as the standard of care in all eyes. Eyes with PVR are susceptible for hypotony after vitrectomy surgery. In addition, retinotomy incisions can expose bare retinal pigment epithelium, leading to absorption of intraocular fluid and subsequent ocular hypotony. In this series, two hypotonic eyes (3.2%) remained hypotonic after the surgery during follow-ups.

Table 3: Distribution of retinal redetachment rate after the initial retinotomy surgery according to ocular characteristics and intraoperative factors

| Variable                              | Retinal redetachment after the initial retinotomy surgery | P (multiple linear regression test) |
|---------------------------------------|----------------------------------------------------------|-------------------------------------|
|                                       | No (n=45), n (%)                                         | Yes (n=16), n (%)                    |                                    |
| History of previous retinal surgery   |                                                          |                                     |                                    |
| No                                    | 22 (48.9)                                                | 6 (37.5)                            | 0.756                              |
| Yes                                   | 23 (51.1)                                                | 10 (62.5)                           |                                     |
| Lens status                           |                                                          |                                     |                                    |
| Phakic                                 | 19 (42.2)                                                | 7 (43.8)                            | 0.783                              |
| Pseudophakic                          | 19 (42.2)                                                | 6 (37.5)                            |                                     |
| Aphakic                               | 7 (15.6)                                                 | 3 (18.7)                            |                                     |
| RRD location                          |                                                          |                                     |                                    |
| Inferior                              | 13 (28.9)                                                | 6 (37.5)                            | 0.671                              |
| Temporal                              | 1 (2.2)                                                  | 1 (6.3)                             |                                     |
| Superior                              | 0                                                        | 1 (6.3)                             |                                     |
| Nasal                                 | 1 (2.2)                                                  | 1 (6.3)                             |                                     |
| Two quadrants                         | 5 (11.1)                                                 | 0                                   |                                     |
| Three quadrants                       | 7 (15.6)                                                 | 0                                   |                                     |
| Four quadrants                        | 18 (40.0)                                                | 7 (43.7)                            |                                     |
| Grade of PVR                          |                                                          |                                     |                                    |
| Anterior                              | 37 (82.2)                                                | 12 (75.0)                           | 0.643                              |
| Posterior                             | 8 (17.8)                                                 | 4 (25.0)                            |                                     |
| Number of posterior PVR clock hours, mean±SD (range) | 5.26±3.58 (1-12)                                     | 5.64±2.50 (3-12)                    | 0.967                              |
| Number of anterior PVR clock hours, mean±SD (range) | 5.82±2.89 (1-12)                                     | 5.67±2.43 (3-12)                    | 0.857                              |
| Extension of retinotomy               |                                                          |                                     |                                    |
| <180                                  | 21 (46.7)                                                | 8 (50.0)                            | 0.802                              |
| ≥180                                  | 24 (53.3)                                                | 8 (50.0)                            |                                     |
| Location of retinotomy                |                                                          |                                     |                                    |
| Inferior                              | 25 (55.5)                                                | 10 (62.5)                           | 0.671                              |
| Temporal                              | 9 (20.0)                                                 | 3 (18.7)                            |                                     |
| Superior                              | 3 (6.7)                                                  | 1 (6.3)                             |                                     |
| Nasal                                 | 1 (2.2)                                                  | 2 (12.5)                            |                                     |
| Four quadrants                        | 7 (15.6)                                                 | 0                                   |                                     |
| SB surgery (in addition to PPV)       |                                                          |                                     |                                    |
| No                                    | 19 (42.2)                                                | 8 (50.0)                            | 0.852                              |
| Yes                                   | 26 (57.8)                                                | 8 (50.0)                            |                                     |
| Postoperation IOP (mmHg), mean±SD (range) | 15.56±5.32 (0-30)                                   | 13.44±5.34 (0-22)                   | 0.553                              |

n: Number, RRD: Rhegmatogenous retinal detachment, SD: Standard deviation, PVR: Proliferative vitreoretinopathy, SB: Scleral buckling, PPV: Pars plana vitrectomy, IOP: Intraocular pressure
In our series, concurrent SB procedure was performed for 34 eyes (totally 40 eyes had SB considering 6 eyes with prior SB procedure). Although SB can provide additional support in inferior detachments and anterior PVR, some studies suggested that effective retinotomy with proper tamponade during vitrectomy may obviate the requirement of concurrent SB, resulting in less surgical time, cost, and morbidity. This series is limited by its retrospective and noncomparative nature. In addition, the sample size was small. A limited sample size may be a plausible explanation for the nonsignificant
associations in this study. Despite these limitations, this study has an acceptable sample size in comparison to the previous studies.

In conclusion, our findings reinforce the value of retinotomy incisions in managing RRD-associated PVR. We could not find statistically significant associations between multiple factors assessed in this study and the recurrent RD rate and BCVA. Further prospective studies on the outcomes of retinotomy are recommended.

**Financial support and sponsorship**
Nil.

**Conflicts of interest**
There are no conflicts of interest.

**REFERENCES**

1. Machemer R, McCuen BW 2nd, de Juan E Jr. Relaxing retinotomies and retinectomies. Am J Ophthalmol 1986;102:7-12.
2. Garweg JG, Tappeiner C, Halberstadt M. Pathophysiology of proliferative vitreoretinopathy in retinal detachment. Surv Ophthalmol 2013;58:321-9.
3. Shalaby KA. Relaxing retinotomies and retinectomies in the management of retinal detachment with severe proliferative vitreoretinopathy (PVR). In: Machemer R, McCuen BW 2nd, editors. Retinal Surgery. 2nd ed. Boston: Butterworth-Heinemann; 1988. p. 160-8.
4. Naz S, Fawad Rizvi S, Murtaza F, Shehzadi B. Outcomes of retinectomy in rhegmatogenous retinal detachment with proliferative vitreoretinopathy. J Coll Physicians Surg Pak 2018;28:848-52.
5. Han DP, Lewis MT, Kuhn EM, Abrams GW, Mieler WF, Williams GA, et al. Relaxing retinotomies and retinectomies. Surgical results and predictors of visual outcome. Arch Ophthalmol 1990;108:694-7.
6. Alturki WA, Peyman GA, Paris CL, Blinder KJ, Desai UR, Nelson NC Jr. Posterior relaxing retinotomies: Analysis of anatomic and visual results. Ophthalmic Surg 1992;23:685-8.
7. Machemer R, Aaberg TM, Freeman HM, Irvine AR, Lean JS, Michels RM. An updated classification of retinal detachment with proliferative vitreoretinopathy. Am J Ophthalmol 1991;112:159-65.
8. Eckardt C, Behrendt S, Zwick A. Results of silicone oil removal from eyes treated with retinectomies. Ger J Ophthalmol 1992;1:2-9.
9. Blumenkranz MS, Azen SP, Aaberg T, Boone DC, Lewis H, Radtke N, et al. Relaxing retinotomy with silicone oil or long-acting gas in eyes with severe proliferative vitreoretinopathy. Silicone Study Report 5. The Silicone Study Group. Am J Ophthalmol 1993;116:557-64.
10. Bovey EH, De Ancos E, Gonvers M. Retinotomies. Am J Ophthalmol 1995;120:394-8.
11. Haut J, Larricart P, Geant G, Van Effenterre G, Vachet JM. Circular subtotal retinectomy and inferior semicircular retinotomy. Material and results in 38 cases. Ophthalmologica 1986;192:129-34.
12. Haut J, Monin C, Larricart P, Van Effenterre G, Piauton JM, Flamand M. Study of a new series of large relaxing retinotomies. Ophthalmologica 1989;198:35-9.
13. Lesnoni G, Bili B, Rossi T, Stripe M. The use of panoramic viewing system in relaxing retinotomy and retinectomy. Retina 1997;17:186-90.
14. Reinking U, Lucker K, Bopp S, Laqua H. Results after retinotomy and retinectomy in the treatment of complicated retinal detachment. Klin Monbl Augenheilkd 1990;197:382-5.
15. Morse LS, McCuen BW 2nd, Machemer R. Relaxing retinotomies. Analysis of anatomic and visual results. Ophthalmology 1990;97:642-7.
16. Iverson DA, Ward TG, Blumenkranz MS. Indications and results of relaxing retinotomy. Ophthalmology 1990;97:1298-304.
17. Kimura M, Nishimura A, Saito Y, Ieda H, Sugiyama K. Retinotomy with retinal turnover to remove subretinal membranes under direct visualization for proliferative vitreoretinopathy. Clin Ophthalmol 2012;6:781-8.
18. Garnier S, Rahmi A, Grasswiil C, Kodijkian L. Three hundred and sixty degree retinotomy for retinal detachments with severe proliferative vitreoretinopathy. Graefes Arch Clin Exp Ophthalmol 2013;251:2081-5.
19. Adhi MI, Siyal N, Aziz S. Anatomical and functional outcomes of retinectomies in retinal detachments complicated by proliferative vitreoretinopathy. Saudi J Ophthalmol 2017;31:216-23.
20. Tseng JJ, Barile GR, Schiff WM, Akar Y, Vidne-Hay O, Chang S. Influence of relaxing retinotomy on surgical outcomes in proliferative vitreoretinopathy. Am J Ophthalmol 2005;140:628-36.
21. Tsai I, Schubert HD. Retinotomy and silicone oil for detachments complicated by anterior inferior proliferative vitreoretinopathy. Br J Ophthalmol 2009;93:1228-33.
22. Han DP, Rychwalski PJ, Mieler WF, Abrams GW. Management of complex retinal detachment with combined relaxing retinotomy and intravitreal perfluoro-n-octane injection. Am J Ophthalmol 1994;118:24-32.
23. Jacobs PM, Cooling RJ, Leaver PK, McLeod D. Retinal relieving incisions. Eye (Lond) 1987;1 (Pt 4):500-3.
24. Federman JL, Eagle RC Jr. Extensive peripheral retinectomy combined with posterior 360 degrees retinotomy for retinal reattachment in advanced proliferative vitreoretinopathy cases. Ophthalmology 1990;97:1305-20.
25. Quiram PA, Gonzales CR, Hu W, Gupta A, Yoshizumi MO, Kreiger AE, et al. Outcomes of vitrectomy with inferior retinectomy in patients with recurrent rhegmatogenous retinal detachments and proliferative vitreoretinopathy. Ophthalmology 2006;113:2041-7.
26. Grigopoulos VG, Benson S, Bunce C, Charteris DG. Functional outcome and prognostic factors in 304 eyes managed by retinectomy. Graefes Arch Clin Exp Ophthalmol 2007;245:641-9.
27. Hocaoglu M, Karacorlu M, Muslubas IS, Ozdemir H, Arf S, Uysal O. Peripheral 360 degree retinotomy, anterior flap retinectomy, and radial retinotomy in the management of complex retinal detachment. Am J Ophthalmol 2016;163:115-21.e1.
28. Lim AK, Alexander SM, Lim KS. Combined large radial retinotomy and circumferential retinectomy in the management of advanced proliferative vitreoretinopathy. Retina 2009;29:112-6.
29. Schubert HD. Postsurgical hypotony: Relationship to fistulization, inflammation, chorioretinal lesions, and the vitreous. Surv Ophthalmol 1996;41:97-125.
30. Barr CC, Lai MY, Lean JS, Linton KL, Tresse M, Abrams G, et al. Postoperative intracocular pressure abnormalities in the Silicone Study. Silicone Study Report 4. Ophthalmology 1993;100:1629-35.
31. Joussen AM, Walter P, Jonescu-Cuypers CP, Koizumi K, Poukai L, Bartz-Schmidt KU, et al. Retinectomy for treatment of intractable glaucoma: Long term results. Br J Ophthalmol 2003;87:1094-102.
32. Tan HS, Mura M, Oberstein SY, de Smet MD. Primary retinectomy in proliferative vitreoretinopathy. Am J Ophthalmol 2010;149:447-52.
33. Jiang Y, Oh DJ, Messenger W, Lim JI. Outcomes of 25-gauge vitrectomy with relaxing retinectomy for retinal detachment secondary to proliferative vitreoretinopathy. J Vitreoretin Dis 2019;3:69-75.
34. Deane JD, Adamson CM, Bonafele L, Regillo CD. PPV, retinectomy, and silicone oil without scleral buckle for recurrent RRD from proliferative vitreoretinopathy. Ophthalmic Surg Lasers Imaging Retina 2019;50:e278-87.