

Table. 1 The Baseline Characteristics and Treatment Outcomes for all Eyes in our Sstudy

Eye	Age(yrs)/ Gender	Symptom Duration (mos)	Prior treatment	Diagnosis	Visual acuity (before surgery)	Visual acuity (after surgery)	Recurrence	Compli- cations	Duration of follow-up (mos)	Visual acuity of fellow eye	Change
1	73/M	4	No	AMD with subfoveal CNVMs	CF/10 cm	LS (+)	No	RD	37	20/200	Worsened
2	73/M	2	Laser x 1	AMD with subfoveal CNVMs	CF/60 cm	20/400	No	No	35	HM/10 cm	Improved
3	65/M	2	No	AMD with subfoveal CNVMs	CF/80 cm	CF/80 cm	No	No	28	20/40	Stable
4	68/F	2	Laser x 1	AMD with subfoveal CNVMs	CF/20 cm	CF/50 cm	No	Cataract	31	20/60	Stable
5	68/M	3	No	AMD with subfoveal CNVMs	CF/20 cm	CF/20 cm	No	No	27	20/100	Stable
6	55/F	1	No	AMD with subfoveal CNVMs	CF/30 cm	20/200	No	No	24	20/100	Improved

long-term study is necessary to prove the efficacy of this technique.

Reasons for poor visual outcome include the loss of the foveal RPE secondary to membrane removal and possible anatomic disruption of the fovea. In our study, histopathological examination of these membranes confirmed the presence of RPE in the excised neovascular complex. Factors other than the presence of foveal RPE and ultimate visual prognosis must exist, because many eyes with clinically intact RPE did not achieve good visual results. Attempts to preserve the foveal RPE have included disconnecting without removing the membrane. Additional attempts at addressing the problem of absent foveal RPE after surgery have included the placement of RPE patches under the fovea intraoperatively.

Location of the CNVMs anterior to the RPE could allow neovascular membrane manipulation and removal without damage to the underlying foveal RPE. One of our patients (case 2) is an example of such a case, with fairly well-demarcated membrane borders against underlying blood angiographically which dis-

closed the membrane location anterior to the RPE.

Vitreous surgery in these patients is not without significant risks. Reported complications include retinal detachment, foveal avulsion, retinal tears, submacular hemorrhage, and macular pucker. Furthermore, recurrence of choroidal neovascular membranes occurred in 33% of patients as reported by Thomas et al. Our patients were observed for at least 24 months without evidence of recurrence. A Submacular Surgery Trial including surgical removal of CNVMs and macular translocation is under development. The future may see transplantation of damaged photoreceptors and retinal pigment epithelium and the use of growth factors and anti-angiogenesis factors¹⁴⁻¹⁹ to stimulate regrowth and to retard neovascularization.

Some recent studies suggest that vitamins, particularly the oxidizing vitamins A, C, and E (which protect the RPE/photoreceptor complex from oxidation), beta-carotene and other carotenoids, and the mineral, zinc and selenium, may be beneficial in AMD.²⁰⁻²⁷ Photodynamic therapy²⁸⁻³¹ and radiation therapy³²⁻³⁹ for AMD is still under evaluation. Gene therapy may be