lished reports on the management of secondary iris cysts with variations in treatment. There were no instances of any of these complications in our case series.

This case series supports the limited number of published reports on the management of secondary iris cysts with viscoelastic-assisted endophotocoagulation.\(^2,5\) We believe the adjuvant use of ophthalmic viscoelastic enables safe separation of the cyst from surrounding structures and aids controlled, external surgical drainage of the contents. This manipulation improves compression of the walls of the cyst and minimizes the potential internal cystic space between the iris tissues, optimizing the effectiveness of the endophotocoagulation. We document an excellent response to this treatment option and can recommend this technique as a minimally invasive treatment option.

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Author Contributions: Dr McGhee had full access to all of the data in the study and takes responsibility for the integrity of the data and the accuracy of the data analysis.
Study concept and design: Lockington, Altaie, McGhee.
Acquisition of data: Moore.
Analysis and interpretation of data: All authors.
Drafting of the manuscript: Lockington, Moore, McGhee.
Critical revision of the manuscript for important intellectual content: Altaie, Moore.
Administrative, technical, and material support: All authors.
Conflict of Interest Disclosures: None reported.
References:

Spontaneous Improvement in Visual Acuity in Age-Related Geographic Atrophy of the Macula

Geographic atrophy (GA) from age-related macular degeneration (AMD) is generally regarded as a monotonically worsening disorder. Unlike exudative AMD, in which improvements in visual acuity (VA) can occur as fluid resolves and neovascularization involutes, photoreceptor loss causing VA worsening in GA is irreversible. Successful therapy that stops the progression of disease will not restore function to a blind area. However, spontaneous improvement in VA can occur over time in eyes with GA. Microperimetry has shown that improvement is associated with better use of the eccentric retina in eyes that could not place the object of interest on the seeing retina at baseline.\(^1\) In a study of patients with bilateral GA followed up for 3 years, 17% improved by 2 or more lines in the worse-seeing eye on this basis, while no better-seeing eyes of the patients improved. The same phenomenon has been observed in the first-affected eye of patients with bilateral disciform scars.\(^2\)

Recent reports of VA improvement in eyes with advanced macular disease in clinical trials of stem cell–derived retinal pigment epithelial cells\(^3-4\) may be misinterpreted as indicating a true treatment effect, while the reason for visual improvement may in fact be related to using the remaining seeing retina more effectively. The data from the National Institutes of Health-funded Wilmer prospective natural history study\(^6\) of GA associated with AMD were analyzed for the occurrence of spontaneous VA improvement at the shorter time frames characteristic of clinical trials. This study was approved by the Johns Hopkins University School of Medicine Institutional Review Board. Written informed consent was obtained.

Methods | Sixty patients with bilateral GA without exudative AMD who had 2-year follow-up data are included. They were thoroughly described in previous publications.\(^3\) A protocol refraction and measurement of best-corrected Early Treatment Diabetic Retinopathy Study VA were performed at baseline and at each annual visit. Descriptive statistics of improvement of VA at 1 and 2 years are provided.

Table. Clinical Details, Treatment, and Outcomes of 4 Eyes With Secondary Iris Cysts Before and After Viscoelastic-Assisted Endophotocoagulation

<table>
<thead>
<tr>
<th>Age, y/</th>
<th>Sex</th>
<th>Cause</th>
<th>Location</th>
<th>Largest Diameter, mm</th>
<th>Visual Acuity</th>
<th>Treatment</th>
<th>Episode No.</th>
<th>Spots, No.</th>
<th>Power, mW</th>
<th>Duration, ms</th>
<th>Recurrence</th>
<th>Follow-up, mo</th>
</tr>
</thead>
<tbody>
<tr>
<td>83/F</td>
<td>F</td>
<td>Post-surgical trauma (previous BRVO)</td>
<td>Superonasal</td>
<td>4</td>
<td>HM</td>
<td>HM</td>
<td>1</td>
<td>128</td>
<td>50-150</td>
<td>50</td>
<td>No</td>
<td>31</td>
</tr>
<tr>
<td>31/M</td>
<td>M</td>
<td>Post-blunt trauma</td>
<td>Superotemporal</td>
<td>5</td>
<td>20/100</td>
<td>20/16</td>
<td>1</td>
<td>211</td>
<td>200-250</td>
<td>100</td>
<td>Yes</td>
<td>4</td>
</tr>
<tr>
<td>4/F</td>
<td>F</td>
<td>Uncertain</td>
<td>Inferonasal</td>
<td>4</td>
<td>20/20</td>
<td>20/20</td>
<td>1</td>
<td>200</td>
<td>200-440</td>
<td>100</td>
<td>No</td>
<td>36</td>
</tr>
<tr>
<td>29/M</td>
<td>M</td>
<td>Post-penetrating eye injury</td>
<td>Superotemporal</td>
<td>4.8</td>
<td>20/16</td>
<td>20/16</td>
<td>1</td>
<td>197</td>
<td>200-250</td>
<td>100</td>
<td>No</td>
<td>50</td>
</tr>
</tbody>
</table>

Abbreviations: BRVO, branch retinal vein occlusion; HM, hand motions.
* All eyes achieved postoperative visual acuity of 20/20 or better except the 83-year-old woman who had compromised vision due to a preexisting BRVO involving the macula.
VA, all eyes had further enlargement of GA during follow-up. Despite the improvement in VA, only 10 better-seeing eyes had baseline VA worse than 20/100. At 1-year follow-up from baseline, 3 of these 5 eyes improved by 10 or more letters—3 by 10 to 15 letters and 2 by 20 to 25 letters. All 5 eyes that improved had baseline VA worse than 20/100. At 1-year follow-up from baseline, 3 of these 5 eyes already had improved by 10 or more letters, and no other eyes improved to this extent at 1 year. Despite the improvement in VA, all eyes had further enlargement of GA during follow-up.

### Results

The Table presents the number of patients who had improved VA at the follow-up visit, the amount of this improvement, and the distribution of improvement as a function of baseline VA. The median baseline VA (approximate Snellen equivalent) was 20/44 for the better-seeing eyes and 20/136 for the worse-seeing eyes. At 2 years, no better-seeing eye improved by 10 or more letters, while 5 of the worse-seeing eyes improved by 10 or more letters—3 by 10 to 15 letters and 2 by 20 to 25 letters. All 5 eyes that improved had baseline VA worse than 20/100. At 1-year follow-up from baseline, 3 of these 5 eyes already had improved by 10 or more letters, and no other eyes improved to this extent at 1 year. Despite the improvement in VA, all eyes had further enlargement of GA during follow-up.

### Discussion

Five (10%) of the 48 worse-seeing eyes with baseline VA worse than 20/100 improved by 10 or more letters at 2 years. No better-seeing eye improved by 10 or more letters, although only 10 better-seeing eyes had baseline VA worse than 20/100, so the significance of an eye being the better-seeing vs worse-seeing eye is uncertain. One can anticipate that a small proportion of patients with GA in a clinical trial will have spontaneous improvement in VA. Previous work has suggested that the improvement occurs in eyes without an eccentric preferred retinal locus for fixation and is associated with better use of the seeing eccentric retina by the time of follow-up. These findings suggest that efforts should be made prior to starting a trial to document by microperimetry whether there is an eccentric preferred retinal locus for fixation. If the patient cannot put the object of interest (fixation cross) on the seeing retina, one could consider vision rehabilitation to optimize use of the eccentric retina prior to enrollment in a trial.

### Conflict of Interest Disclosures

Dr Sunness has been a consultant to the following companies for design of clinical trials for age-related macular degeneration: Acuzela, Alcon, Alexion, BioMarin, Cell Cure, Genentech, GlaxoSmithKline, Neurotech, Novartis, Ophthotech, Pfizer, ReVision, System Analytic, Sucampo, and Velocity Pharm Dev. No other disclosures were reported.

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### Additional Contributions

Dr Bressler helped with patient recruitment and design of the study, and Carol A. Applegate, COT, Richard E. Hoover Low Vision Rehabilitation Services, Greater Baltimore Medical Center, Baltimore, Maryland, helped with data acquisition. Both received funding from grant ROI EYO8552 from the National Institutes of Health for their roles in the study (coinvestigator and study coordinator, respectively).


### OBSERVATION

#### Chronic Eyelid Dermatitis Secondary to Cocamidopropyl Betaine Allergy in a Patient Using Baby Shampoo Eyelid Scrubs

The allergic role of cocamidopropyl betaine (CAPB) in contact dermatitis, including eyelid dermatitis, is well documented in the dermatology literature. Despite widespread use of this surfactant in many cosmetic and self-care products, including some commonly prescribed by ophthalmologists for eyelid hygiene, we found no mention of this allergen in the ophthalmic literature.

### Report of a Case

A 52-year-old woman was referred to our department with a 10-year history of recalcitrant blepharitis, conjunctivitis, and periorbital dermatitis. Her medical history included asthma, seasonal allergies, and atopic dermatitis. Her ocular history was significant for multiple topical and oral therapeutic regimens for her chief complaint with periods of only modest temporary relief.

On presentation, her corrected visual acuity was 20/30 OD and 20/20 OS. External examination findings were significant...