European Journal of Ophthalmology / Vol. 13 no. 6, 2003 / pp. 588-589

SHORT COMMUNICATION

Case report

Successful surgical repair and good visual outcome of a recurrent macular hole of seven years duration

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PURPOSE. *To report anatomical closure and visual improvement in a patient with seven-year history of recurrent macular hole.*
METHODS. *A 68-year-old woman underwent vitrectomy and silicone oil tamponade for a seven-year old recurrent macular hole.*
RESULTS. *Macular hole closed and visual acuity improved form 20/400 to 20/60 at 12 months follow-up.*
CONCLUSIONS. *The eyes with very-long standing macular holes may be considered for surgery. Predictors of successful visual outcome after surgery in very-long standing macular holes should be studied in larger series. (Eur J Ophthalmol 2003; 13: 588-9)*

KEY WORDS. *Macula, Macular hole, Silicone oil, Vitrectomy*

Accepted: April 2, 2003

INTRODUCTION

Duration of a macular hole is an acknowledged prognostic factor for successful anatomic repair and visual restoration. Patients with recent onset of symptoms have better anatomical and visual outcome than those with long-standing macular holes (1-4). To our knowledge, significant gain in visual acuity has been reported in only two cases with very long-standing (5 years or more) macular holes (5, 6). We report a patient with a seven-year history of recurrent macular hole whose vision improved from 20/400 to 20/60.

Case report

A 68-year-old woman presented with recurrent macular hole in the right eye and stage 3 macular hole in the left eye. The right eye had a failed macular hole surgery with gas tamponade seven years prior to this presentation. The best corrected visual acuity was 20/400 in both eyes. Slit lamp examination revealed mild nuclear sclerosis in both eyes. She underwent vitrectomy and internal limiting peeling with silicone oil tamponade first in the left eye followed nine months later by the same procedure in the right eye. Silicone oil was removed from each eye 6 weeks after the initial surgery. The macular hole closed and cataract progressed in both eyes. The patient underwent cataract surgery three months after the oil removal in each eye, and visual acuity was noted to have improved to 20/60 in the right eye and 20/50 in the left eye in the last follow-up at 12 and 21 months respectively.

DISCUSSION

Duration of a macular hole is a recognized preoperative prognostic factor. Macular holes of 6 months duration or less have more successful closure rates and improvement in visual acuity (1-3). Postmortem

1120-6721/588-02$01.00/0

studies of long-standing macular holes have shown variable photoreceptor degeneration around the hole (7, 8). For this reason, most vitreoretinal surgeons are hesitant to operate on long-standing macular holes. However, cases with good outcomes have been reported (4-6, 9).

There are very few reports of very long-standing (5 years and more) macular holes which underwent surgical repair (4-6). Significant gain in visual acuity has been reported in two cases (5, 6). Willis and Garcia-Cosio compared long-standing versus recent macular holes (5). They indicated that useful vision could be obtained even in patients with long-standing holes; the longest duration macular hole in their series was 8 years, for which they achieved visual acuity of 20/50. Roth, et al. reported that long-standing macular holes have a similar anatomic success rate, but a poorer visual prognosis than recent holes (6). One case in their series described a macular hole of 65 months duration with an improvement in visual acuity from 20/80 to 20/50. They concluded that macular hole surgery is a viable option in the presence of fellow eye pathology, despite the duration of the macular hole.

Our patient had a recurrent macular hole of 7 years duration and improved substantially after surgery with silicone oil. In the literature, the longest-duration macular hole treated by means of surgical repair with silicone oil tamponade was 2 years (10). Our case confirms the fact that very long-standing holes may show significant visual improvement with surgical repair, and suggests that silicone oil may be a better option for recurrent and long-standing cases. The eyes with very-long standing macular holes may be considered for surgery especially when the fellow eye does not have functional vision. Predictors of successful visual outcome after surgery in very long-standing macular holes should be studied in larger series.

ACKNOWLEDGEMENTS

This study was supported, in part, by an unrestricted departmental grant from Research to Prevent Blindness (RPB).

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