

[Home](#) > [Journal](#) > [Medicine & Healthcare](#) > [OJOph](#)[Indexing](#) [View Papers](#) [Aims & Scope](#) [Editorial Board](#) [Guideline](#) [Article Processing Charges](#)[OJOph](#) > [Vol.2 No.4, November 2012](#)

OPEN ACCESS

The Use of the Anterior Chamber Maintainer in Special Cataract Cases

PDF (Size: 120KB) PP. 127-130 DOI: 10.4236/ojoph.2012.24028

Author(s)

Vasileios Lakidis, Antonios Lakidis, Despoina Kolokotroni, Diamantis Almaliotis, Vasileios Karampatakis

ABSTRACT

Purpose: To point out the indications for the use of the Anterior Chamber Maintainer (ACM) in order to facilitate cataract surgery in selective cases. **Materials and Methods:** In a time interval of 4 years the ACM was used in 28 special cataract cases 17 patients had high myopia (12 - 25 dpt, axial length 28 - 34 mm), 3 patients had vitreo-retinal pathology known pre-operatively and 8 cases were previously vitrectomized with silicon oil. In these cases the ACM was introduced either from the beginning or during the surgical procedure when excessive fluctuations of the Anterior Chamber (AC) were observed. **Results:** Though the new generation phaco machines tend to maintain the stability of the AC, the use of the ACM contributed to even greater stability during the insertion and the removal of probes and during the whole procedure, eliminating the risk of complications. All these risky cases were accomplished without intraoperative complications. The surgeons experienced a sense of increased safety during the procedure. **Conclusions:** The use of the ACM in cataract cases with high risk for complications offers a much greater stability of the AC, by eliminating the fluctuations of the posterior capsule and consequently prevents intraoperative and potentially postoperative complications.

KEYWORDS

ACM; Cataract Surgery; Intraoperative Complications

Cite this paper

V. Lakidis, A. Lakidis, D. Kolokotroni, D. Almaliotis and V. Karampatakis, "The Use of the Anterior Chamber Maintainer in Special Cataract Cases," *Open Journal of Ophthalmology*, Vol. 2 No. 4, 2012, pp. 127-130. doi: 10.4236/ojoph.2012.24028.

References

- [1] M. Blumenthal, E. L. Assia, V. Chen and I. Anvi, " Using an Anterior Chamber Maintainer to Control Ointraocular Pressure during Phacoemulsificatio," *Journal of Cataract & Refractive Surgery*, Vol. 20, No. 1, 1994, pp. 93-96.
- [2] J. L. Alio, J. M Ruiz-Monero, et al., " The risk of Retinal Detachment in High Myopia after Small Incision Coaxial Phacoemulsification," *American Journal of Ophthalmology*, Vol. 144, No. 1, 2007, pp. 93-98. doi:10.1016/j.ajo.2007.03.043
- [3] S. P. Percival, " Redefinition of High Myopia: The Relationship of Axial Length Measurement to Myopic Pathology and Its Relevance to Cataract Surgery," *Developments in Ophthalmology*, Vol. 14, 1987, pp. 42-46.
- [4] H. Mondon and P. Metge, " Définitions: La Myopie Forte Masson," *, Paris, 1994.
- [5] L. Buratto, Le. Burato and C. Burato, " Phacoemulsification of the Cataract in Severe Myopia," In: L. Buratto, R. H. Osher and S. Masket, Eds., *Cat-aract Surgery in Complicated Cases*, Thorofare, New Jersey, SLACK Inc., 2000, pp. 49-63
- [6] P. S. Koch, " Phacoemulsification in Patients with High Myopia," In: L. W. Lu and I. H. Fine, Eds., *Phacoemulsification in Difficult and Challenging Cases*, Thieme Medical Publishers, Inc., New York, 1999, pp. 13-20.

[OJOph Subscription](#)[Most popular papers in OJOph](#)[About OJOph News](#)[Frequently Asked Questions](#)[Recommend to Peers](#)[Recommend to Library](#)[Contact Us](#)

Downloads: 6,128

Visits: 30,215

[Sponsors >>](#)

- [7] R. de Natale, G. Romeo, F. Fama and L. Scullica, " Humans Lens Transparence in High-Myopic Subjects," *Ophthalmologica*, Vol. 205, No. 1, 1992, pp. 7-9. doi:10.1159/000310303
- [8] L. Fernadez-Vega, J. Alfonso and T. Villacampa, " Clear Lens Extraction for the Correction of High Myopia," *Ophthalmology*, Vol. 110, No. 12, 2003, pp. 2349-2353. doi:10.1016/S0161-6420(03)00794-2
- [9] A. Kubaloglou, T. Yazicioglu and S. Tacer, " Small Incision Clear Lens Extraction for the Correction of High Myopia," *European Journal of Ophthalmology*, Vol. 14, No. 1, 2004, pp. 1-6.
- [10] G. Ripandelli, C. Scassa, V. Parisi, et al., " Cataract Surgery as a Risk Factor for Retinal Detachment in Very Highly Myopic Eyes," *Ophthalmology*, Vol. 110, No. 12, 2003, pp. 2355-2361. doi:10.1016/S0161-6420(03)00819-4
- [11] J. Colin, A. Robinet and B. Cochener, " Retinal Detachment after Clear Lens Extraction for High Myopia," *Ophthalmology*, Vol. 106, No. 12, 1999, pp. 2281-2285. doi:10.1016/S0161-6420(99)90526-2
- [12] M. A. Shousa and S. H. Yoo, " Cataract Surgery after Pars Plana Vitrectomy," *Current Opinion in Ophthalmology*, Vol. 21, No. 1, 2010, pp. 45-49. doi:10.1097/ICU.0b013e32833303bf
- [13] S. M. Pinter and A. Sugar. " Phacoemulsification in Eyes with Past Pars Plana Vitrectomy: Case-Control Study," *Journal of Cataract & Refractive Surgery*, Vol. 25, No. 4, 1999, pp. 556-561.
- [14] F. H. Koch, A. Cusumano, P. Seifert, et al., " Ultrastructure of the Anterior Lens Capsule after Vitrectomy with Silicone Oil Injection. Correlation of Clinical and Morphological Features," *Documenta Ophthalmologica*, Vol. 91, No. 3, 1995, pp. 233-242. doi:10.1007/BF01204174
- [15] A. Akinci, C. Batman and O. Zilelioglu. " Cataract Surgery in Previously Vitrectomized Eyes," *International Journal of Clinical Practice*, Vol. 62, No. 5, 2008, pp. 770-775. doi:10.1111/j.1742-1241.2007.01281.x
- [16] W. E. Smiddy, W. J. Stark, R. G. Michels, et al., " Cataract Extraction after Vitrectomy," *Ophthalmology*, Vol. 94, No. 5, 1987, pp.483-487.
- [17] Z. Biro and B. Kovacs, " Results of Cataract Surgery in Previously Vitrectomized Eyes," *Journal of Cataract & Refractive Surgery*, Vol. 28, No. 6, 2002, pp. 1003-1006. doi:10.1016/S0886-3350(02)01237-3
- [18] H. B. Chawla and A. D. Adams, " Use of the Anterior Chamber Maintainer in Anterior Segment Surgery," *Journal of Cataract & Refractive Surgery*, Vol. 22, No. 2, 1996, pp.172-177.
- [19] J. L. Alio, J. M. Ruiz-Moreno, M. H. Shabayek, F. L. Lugo and A. M. Abd el Rahman, " The Risk of Retinal Detachment in High Myopia after Small Incision Coaxial Phacoemulsification," *American Journal of Ophthalmology*, Vol. 144, No. 1, 2007, pp. 93-97. doi:10.1016/j.ajo.2007.03.043
- [20] M. Russel, B. Gaskin, D. Russel and P. J. Polkinghorne, " Pseudophakic Retinal Detachment after Phacoemulsification Cataract Surgery: Ten-Year Retrospective Review," *Journal of Cataract & Refractive Surgery*, Vol. 32, No. 3, 2006, pp. 442-445. doi:10.1016/j.jcrs.2005.12.095
- [21] H. R. Wilbrandt and T. H. Wilbrandt, " Pathogenesis and Management of the Lens-Iris Diaphragm Retropulsion Syndrome during Phacoemulsification," *Journal of Cataract & Refractive Surgery*, Vol. 20, No. 1, 1994, pp. 48-53.
- [22] C. J. Cole and D. G. Charteris, " Cataract Extraction after Retinal Detachment Repair by Vitrectomy: Visual Outcome and Complications," *Eye (Lond)*, Vol. 23, No. 6, 2009, pp. 1377-1381. doi:10.1038/eye.2008.255
- [23] C. W. Yung, A. Oliver, J. M. Bonnin and H. Gao. " Modified Anterior Capsulotomy Technique and Histopathology of the Anterior Capsule in Cataracts after Prolonged Exposure to Intravitreal Silicone Oil," *Journal of Cataract & Refractive Surgery*, Vol. 34, 2008, pp. 2020-2023. doi:10.1016/j.jcrs.2008.06.050
- [24] A. Akinci, C. Batman, E. Ozkilic and A. Altinsoy, " Phacoemulsification with Intravitreal Bevacizumab Injection in Diabetic Patients with Macular Edema and Cataract," *Retina*, Vol. 29, No. 10, 2009, pp.1432-1435. doi:10.1097/IAE.0b013e3181b77422
- [25] S. Androudi, P. Brazitikos, N. T. Papadopoulos, D. Derekliis, S. Lake and N. Stangos. " Posterior Capsule Rupture and Vitreous Loss during Phacoemulsification with or without the Use of an Anterior

