A universal liquid contact lens for vitrectomy

**Purpose:** Usually we use different kinds of contact lens to perform vitrectomy. The contact lens changing during vitrectomy is tedious and labor consuming. To facilitate more efficient vitrectomy, we developed a contact lens universally substituting all kinds of contact lens for vitrectomy.

**Materials & Methods:** We developed a unique way utilizing the concave contact lens for vitrectomy. By installing perfluorocarbon fluid into the concave chamber and sealing it with a transparent shield, we invented a novel liquid contact lens for vitrectomy. The lens was applied in conventional 3-port vitrectomy for vitreous hemorrhage and retinal detachment patients.

**Results:** The liquid lens could be put flat and served as a plano or concave contact lens. While tilted, it became a prism contact lens. With different angle of tilting, it can be used as a prism contact lens with a designated prism diopter. It could also be used under gas tamponade. While doing vitrectomy, the liquid contact lens could be applied all the way without changing.

**Conclusion:** Universally, this unique liquid lens can replace plano, concave, 15 degree prism contact lens, 30 degree prism contact lens, and 45-degree prism contact lens for vitrectomy.

**Biography**

Po-Kang Lin has completed his MD from National Yang Ming University, Taiwan and PhD from Institute of Bioelectronics and Bioinformatics, National Taiwan University, Taiwan. Currently, he is an Associate Professor of National Yang Ming University and Clinical Professor of National Defense Medical University, Taiwan. He also serves as an Attending Physician at the Department of Ophthalmology, Taipei Veterans General Hospital, Taiwan and as the Director of Ophthalmological Ward. He is also a Researcher at Biomedical Electronic Translation Research Center of National Chiao Tung University, Taiwan.

pklin123@hotmail.com

Po-Kang Lin, National Yang Ming University, Taiwan

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