MEANWHILE, ON EYETUBE...

A late-night IOFB leads to a new trick, and hyaloid removal prompts a Shakespearian query.

BY MICHAEL A. KLUFAS, MD

Bandage Lens Technique for Corneal Clarity During Vitrectomy

Video submitted by Jeffrey J. Tan, MD; Meesa S. George, MD, PhD; and Lisa C. Olmos de Koo, MD, MBA



Jeffrey J. Tan, MD; Meesa S. George, MD, PhD; and Lisa C. Olmos de Koo, MD, MBA, describe the use of a novel combination of a bandage contact lens and an ophthalmic viscosurgical device (OVD), which they term the *bandage lens technique* (BLT), for maintaining or improving corneal clarity during pars plana vitrectomy (PPV).[1] This practical technique, presented at VBS|004, the 4th annual meeting of the Vit-Buckle Society (VBS), in Miami Beach, Fla., earned the Fellows' Foray best video prize.

At the VBS meting, Dr. Tan explained that the technique was born at Los Angeles County + USC Medical Center during a late-night encounter. A patient presented with an intraocular foreign body (IOFB) with a sutured but incompetent corneal wound that continuously sprayed fluid onto the BIOM viewing system (Oculus). Rather than resorting to using a different contact lens viewing system such as the AVI lens (Advanced Visual Instruments), Dr. Tan and colleagues stumbled upon the BLT. During the VBS presentation, moderator Tarek Hassan, MD, noted that the improved view may be partially due to the osmolality of the OVD used, Viscoat (chondroitin sulfate, hyaluronic acid; Alcon), and to a secondary deturgescence of the cornea.

In the video, the authors describe a modification of the technique, BLT 2.0, with the potential for use during many vitreoretinal surgical procedures, including IOFB removal and surgery to address proliferative vitreoretinopathy. This technique may have particular benefit for diabetic patients who often have fragile epithelium, may require tamponade pressure to achieve hemostasis, or are at high risk of prolonged epithelial defect and potential corneal ulcer formation if the corneal epithelium is removed intraoperatively. A

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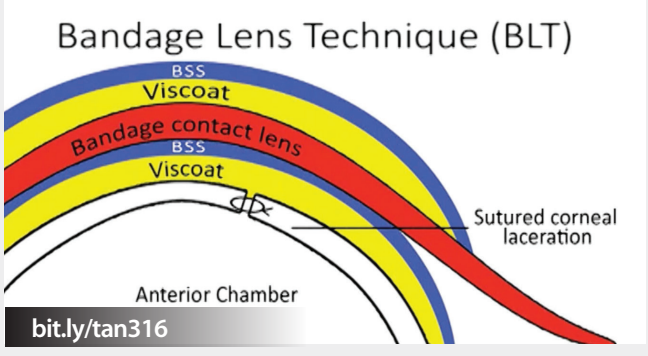

study by Garcia-Valenzuela and colleagues compared the use of the ocular lubricant GenTeal gel (Novartis) versus the hydroxypropyl methylcellulose lubricant Goniosol (Alcon, Novartis); the authors found that the former resulted in a decreased incidence of epithelial debridement during vitreoretinal surgery.[2] Garcia-Valenzuela and colleagues hypothesized that this was due to the different preservative agents (sodium perborate and benzalkonium chloride, respectively) in the two lubricants.

The high osmolality of Viscoat (325 mOsm/kg) compared with the osmolality of hydroxypropyl methylcellulose (305 mOsm/kg) and the ability of Viscoat to clear the cornea when placed in the anterior chamber have been reported by Colin McCannel, MD, in the setting of PPV for retained lens fragments.[3]

1. Tan JJ, George MS, Olmos de Koo LC. The bandage lens technique: a novel method to improve intraoperative visualization and fluidic stabilization during vitrectomy in cases of penetrating ocular trauma. *Retina*. 2016;36(7):1395-1398.
2. Garcia-Valenzuela E, Abdelsalam A, Eliott D, et al. Reduced need for corneal epithelial debridement during vitreo-retinal surgery using two different viscous surface lubricants. *Am J Ophthalmol*. 2003;136(6):1062-1066.
3. McCannel CA. Improved intraoperative fundus visualization in corneal edema: the Viscoat trick. *Retina*. 2012;32(1):189-190.

Reoperation for Incomplete Hyaloid Removal After Initial Diabetic Vitrectomy

Video submitted by Pradeep S. Prasad, MD, and Michael A. Klufas, MD


Pradeep S. Prasad, MD, and I present a video of two patients with recurrent nonclearing vitreous following incomplete hyaloid removal during initial vitrectomy for proliferative diabetic retinopathy.

To pull the hyaloid, or not to pull the hyaloid—that is the question. Some argue for a minimalist approach in order to retain vitreous and potentially prolong the efficacy of anti-VEGF agents. Others insist that a primary goal of diabetic surgery is complete hyaloid removal to decrease the incidence of persistent traction and rebleeding. Hyaloid removal may be difficult in young diabetic patients and eyes without panretinal photocoagulation; such eyes lack areas of tacked-down retina from which to pull the hyaloid. Intraoperatively and postoperatively, particularly in diabetic cases, surgeons may encounter vitreoschisis, which can be a surprise to those who thought the hyaloid had already been removed.[1-3]

Surgeons often question whether a posterior vitreous detachment should be induced during procedures such as macular pucker surgery or floaterectomy. An attached hyaloid can result in contraction and act as a scaffold for fibrovascular proliferation. In 2000, Peyman and colleagues reported the use of triamcinolone acetonide to aid in visualization of vitreous and posterior hyaloid.[4] Dyes (ie, lutein, trypan blue, indocyanine green), techniques, and instruments (eg, pics, adjustable tip brush) have been described and are in development to improve visualization of vitreous and aid in hyaloid removal.[5] ■

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3. Sebag J. Vitreoschisis. *Graefes Arch Clin Exp Ophthalmol*. 2008;246(3):329-332.
4. Peyman GA, Cheema R, Conway MD, Fang T. Triamcinolone acetonide as an aid to visualization of the vitreous and the posterior hyaloid during pars plana vitrectomy. *Retina*. 2000;20(5):554-555.
5. Peyman GA, Livir-Rallatos C, Canakis C, Conway MD. An adjustable-tip brush for the induction of posterior hyaloid separation and epiretinal membrane peeling. *Am J Ophthalmol*. 2002;133(5):705-707.

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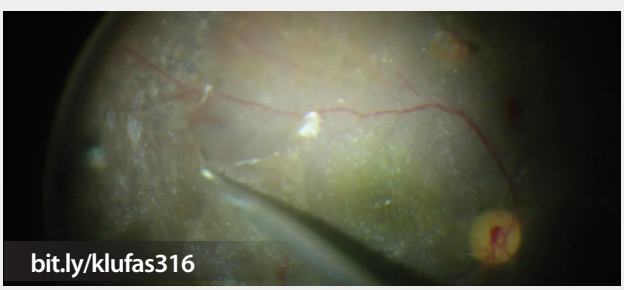

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WHAT IS YOUR PREFERRED TECHNIQUE FOR PVD VISUALIZATION AND INDUCTION?

Login at **Eyetube.net**, watch this video, and share your preferred technique in the comments section.