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

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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). 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 meeting, 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.
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. 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.