

A brief note on visconeeding.

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Description

Visconeeding is a new technique that delivers a 6.0 polypropylene suture inside the eye with only a 30 gauge needle and an OVD syringe.

Two 30 gauge needles are used: One attached to an OVD syringe, bent 20 degrees at 12 mm from tip, and the other attached to an insulin syringe, and bent 45 degrees at 7 mm from tip. A 4-5 cm long 6.0 polypropylene suture is fully introduced inside the OVD syringe (Figure 1). The needles are inserted inside the eye 2 mm from limbus. The two tips are put close to each other and, then, the plunger of the OVD syringe is pushed until the suture starts to penetrate the lumen of the insulin needle at least 7 mm (Figure 2).

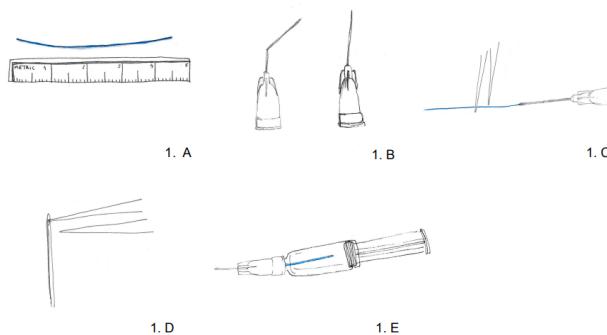


Figure 1. Preparing the suture for Visconeeding. 1A: 4.5 cm long 6-0 polypropylene; 1B: 30-gauge needle bent 20 degrees 12 mm from tip (top), and 30-gauge needle bent 45 degrees 7 mm from tip (bottom); 1C: Introducing the 6-0 suture into the 30-gauge ultrathin wall needle; 1D: Suture fully inside needle; 1E: Syringe of ophthalmic viscosurgical device with polypropylene 6-0 inside.

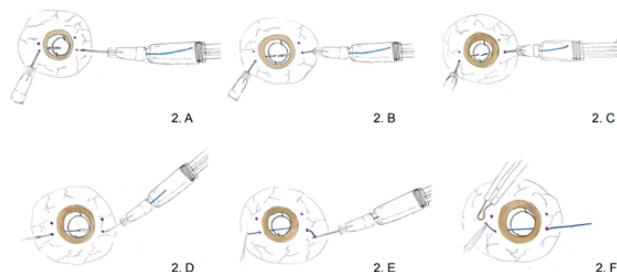


Figure 2. 2A: The two 30 gauge needles are inserted transconjunctivally 2 mm from the limbus parallel to the iris; 2B: The tips are close to each other, and the plunger is pressed; 2C: The Prolene suture is inserting into the lumen of the insulin needle and advanced about 7 mm; 2D: Removing the first

needle from the eye; 2E: Holding the end of the suture and removing the other needle outside the eye; 2F: With a high-temperature ophthalmic cautery deform, at least 2 mm of the suture builds a flange.

After that, the 30 gauge needle attached in an insulin syringe is removed from the eye. It is important to hold the end of the suture when it comes out before removing the other needle, so that the suture remains inside the eye. With the help of a high-temperature ophthalmic cautery, the tips of the suture are deformed in order to create a flange (Figures 3 and 4).

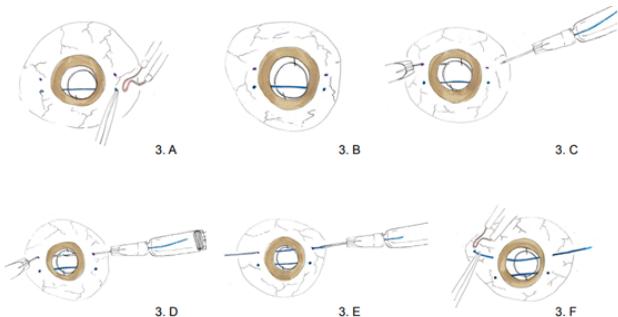


Figure 3. 3A: At the opposite side of the suture, we made a second flange with a cautery; 3B: The first suture in place; 3C: Inserting the needle in the anterior chamber; D-F: ViscoNeedling and making a flange of the second suture.

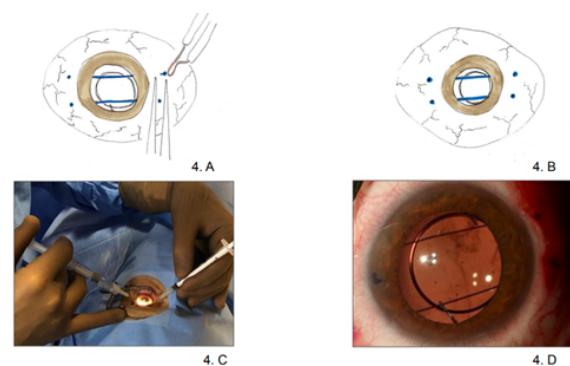


Figure 4. 4A: Adjusting the suture tension with a counter pressure; 4B: Flanges are covered with the conjunctiva; 4C: Position of the hands, the surgeon sitting temporal; 4D: Burying the 4 flanges with the conjunctiva.

This principle of injecting a suture in the eye without any special needle or micro forceps could be a good alternative for many steps of surgeries that involve passing a suture inside the eye. This study, explain a procedure used in two cases after several attempts to minimize iris capture of the IOL (iridotomy, miotic medicine, and mechanical push) failed to result in

permanent iris capture reduction. The Yamane procedure was used in the first case on a 58-year-old man who had been injured and had his capsular bag–IOL complex dislocated. The second procedure was carried out on a 49-year-old man who had undergone vitrectomization and was suffering from the same problem.

We have been using visconeedling for 2 years in cases of IOL iris capture, the most common complication of Yamane's technique [1,2] (Figures 2-4).

It is also possible to use it in “Safety-Basket Suture” technique, by Maskit and Nicole Fram, where a safety net is used for surgical management of malpositioned PC IOL in post-vitrectomy eyes [3].

We think that, with visconeedling, it could be quicker and simpler to pass the horizontal and vertical sutures of 6.0 polypropylene than the way proposed by the authors.

Considering the “Novel Double-Flanged technique for managing Marfan syndrome and Microspherophakia” by Canabrava, et al. we believe that it's possible to place the 5.0/6.0 polypropylene into the lumen of 30 gauge needle using only visconeedling instead of microforceps [4,5].

Conclusion

Furthermore, we suppose that visconeedling could facilitate to penetrate the iris and to manage the 6.0 suture inside the eye, regarding Masayuki Akimoto's technique, “Repairing iridodialysis by riveting”. In all these techniques that use flanges it is of paramount importance to adjust the tension of the suture and cover them with conjunctiva and tenon in order to avoid the exposure of the flanged sutures.

References

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