REFERENCES

Trocar anterior chamber maintainer: Will it withstand the “test of time”?

In a recent article, Agarwal et al. described a trocar anterior chamber maintainer (ACM) that cannot inadvertently extrude during the surgical procedure. It is absolutely true that a sudden loss of the anterior chamber during the surgical procedure can lead to serious consequences. Another infrequent if not rare complication not mentioned by Agarwal et al. is a sudden hydrodissection of Descemet membrane, which can result if the tip of the maintainer does not extend beyond the membrane itself.

Agarwal et al. also state that with other ACMs (including those with “annular rings”), suturing the incision is often required to prevent postoperative hypotony and to minimize the continuous leak and the induced postoperative astigmatism. I have to say that after 34 years of using an ACM that has annular rings, which is the Lewicky ACM, I cannot recall the last time I had to suture the infusion site incision. I have presented my ACM at many meetings, including the III International Conference on Advances in Ophthalmology held in Mumbai, India, in 2000, which Dr. Agarwal attended.

The self-retaining Lewicky ACM has withstood the test of time. First designed by me in 1982, my ACM uses concentric rings or threads to stay securely fixed within the corneal stroma throughout the procedure when inserted through a properly constructed corneal tract using a properly sized microvitreoretinal blade knife for the particular gauge Lewicky ACM used.

Andrew O. Lewicky, MD
Chicago, Illinois, USA

REFERENCES

OTHER CITED MATERIAL

Reply: We appreciate the interest our work has generated, and we take this opportunity to address your concerns. The self-retaining Lewicky ACM is an excellent device, but Dr. Lewicky admits in his letter it needs a “properly constructed corneal tract using a properly sized microvitreoretinal blade knife.” In our paper, the authors highlighted the same issue that suturing an incision is required if leakage is observed and that is most commonly perceived when there is a mismatch in the size of the side-port incision created with a knife and the diameter of the ACM. The annular rings snugly fit onto the side-port incision and are self-retaining; however, if the paracentesis is larger for any reason, leakage can be observed. Trocars are also self-retaining, but suturing the sclerotomy site might be needed if the surgeon fails to create a biplanar/valvular incision that can leak in the postoperative period. It is essential and mandatory to suture a leaking wound, although suturing a sclerotomy can be more forgiving than the cornea in regard to induced astigmatism.

We do agree that Descemet membrane detachment can occur if the tip of ACM does not extend well beyond Descemet membrane itself. But this complication is not observed with the trocar ACM because it is introduced 0.5 mm from the limbus, creating a biplanar incision, and it does not tend to disturb any layer of the cornea.

The trocar ACM is feasible to use in complicated cases, leaving the anterior surface of the cornea entirely at the surgeon’s disposal because it prevents overcrowding of the cornea and can be used in endothelial keratoplasty surgeries for air–fluid infusion, preventing inadvertent engagement of the corneal graft at the tip of the ACM because it does not encroach on the corneal surface. It can also be used for infusion by retinal surgeons in cases of cloudy media in which it is difficult to visualize the tip of
trocar infusion cannula introduced from the pars plana site. Looking at the specific advantages that a trocar ACM offers, the question of whether the trocar ACM will withstand “the test of time” cannot be answered now because science is constantly evolving and the only thing that is constant is change.—

Priya Narang, MS, Amar Agarwal, MS, FRCS, MS, FRCOphth

REFERENCE