

CEDARS/ASPENS DEBATES

Tips and tricks to ease implantation of the iStent

P. Dee Stephenson, MD, FACS, ABES, FSEE, and Cathleen M. McCabe, MD, explain how they have modified their techniques as they gained experience with the device.

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P. Dee Stephenson, MD, FACS, ABES, FSEE; Cathleen M. McCabe, MD

Welcome to another edition of CEDARS/ASPENS Debates. CEDARS/ASPENS is a joint society of cornea, cataract and refractive surgery specialists, here to discuss some of the latest hot topics in ophthalmology.

Minimally invasive glaucoma surgery (MIGS) has received much attention over the past year. With an aging population and growing incidence of glaucoma, the ability to treat this condition with a powerful yet lower-risk therapy has become of paramount importance. This month, **P. Dee Stephenson, MD, FACS, ABES, FSEE**, and **Cathleen M. McCabe, MD**, discuss their methods of implementing MIGS into their practices. We hope you enjoy the discussion.

Kenneth A. Beckman, MD, FACS
OSN CEDARS/ASPENS Debates Editor

iStent techniques and pearls

I have now been doing MIGS surgery with the iStent (Glaukos) for about 1 year. There are techniques and pearls that come with experience and seeing enough cases so that you can give advice to others starting out. I have modified my technique several times by listening to others and utilizing new instrumentation.



**P. Dee
Stephenson**

Anatomy

Know how to use the gonioscope, and know your landmarks. Remember, all eyes vary, and in diabetic eyes, the anatomy is like tissue paper. If the stent is not placed on the first attempt, sometimes it is very hard to place it at all.

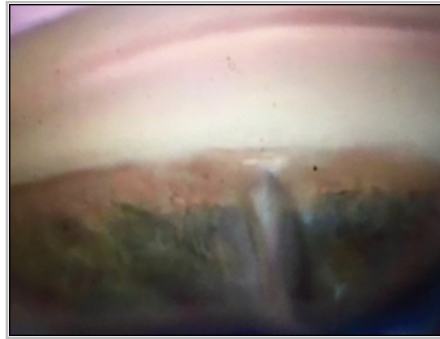
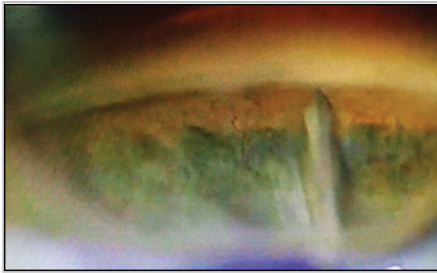
Positioning

There is one thing I do that is a little different. I am a microincision cataract surgeon who uses a 12 o'clock primary incision. So instead of turning the patient's head to the left or right and making another incision, I place the bed in reverse Trendelenburg and have the patient put his chin down. Then I adjust the microscope. I have found this to work nicely because it allows my hands to be in my normal operating position.

New instrumentation

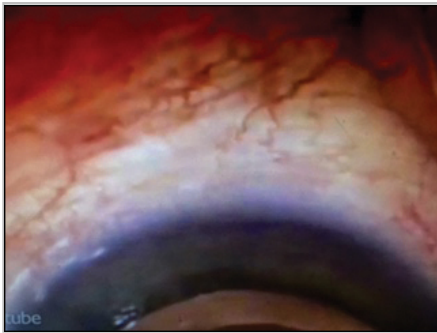
I use the 25-gauge MST micro-forceps to place the stent instead of the current injector. The injector is

improved from the first version, but if I ever have to regrasp or retrieve the stent, these forceps make it easy. I reload the stent with the MST forceps before even attempting the insertion because it is just easier.



Figures 1 and 2. A 25-gauge MVR blade is used to bisect the trabecular meshwork for about 1 clock hour, similar to a goniotomy. This opens the canal like a landing strip before placement of the iStent.

Images: Stephenson PD



Figures 3 and 4. After firming up the eye with balanced salt solution through paracentesis, there will be blanching of the vessels in the area of the stent, indicating that it is placed correctly, due to the flow through the stent into Schlemm's canal.

Another technique

I have also tried using a 25-gauge MVR blade to bisect the trabecular meshwork for about 1 clock hour, similar to a goniotomy. This opens the canal like a landing strip. I then place the iStent, which has been helpful in difficult cases (Figures 1 and 2).

Correct placement

I also think it is important to make sure that the iStent is in the proper position and working correctly. After placement, all of the viscoelastic is removed, and the eye is softened to allow the aqueous veins to dilate. Then, after firming up the eye with balanced salt solution through paracentesis, you will see blanching of the vessels in the area of the stent, indicating that it is placed correctly, due to the flow

through the stent into Schlemm's canal (Figures 3 and 4).

If you always do what works best in your hands, then the iStent will be an easy transition, which is of great benefit to your patients.

For more information:

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