PHACOEMULSIFICATION FOR COMPLEX CASES

Choosing a system to meet your practice's needs.

BY JOHNNY L. GAYTON, MD

When it comes to wrestling with complex cataract cases, one might say I have spent quite a bit of time in the ring. I encounter dense, hypermature white, black, or deep brown cataracts on an almost daily basis. In addition, a large percentage of my patients have intraoperative floppy iris syndrome. These unique circumstances place heavy demands on my surgical technique, surgery team, and our equipment.

When it came time to upgrade my phaco system 2 years ago, I decided to review a variety of the advanced phaco platforms to ensure that I had the best system for my practice and my patients. I went into this evaluation process with some specific criteria. Because I was performing more femtosecond laser-assisted cases and continued to see a large number of hypermature cataracts, I needed a platform that had exceptional fluidic control paired with efficient ultrasound energy to facilitate the removal of all densities of lens material with the least amount of energy required. I also operate in my own ambulatory surgery center, so I wanted a system that provided maximum cost-efficiency and excellent service. After researching and testing most available systems and consulting colleagues about their experiences, it became clear to me that the Stellaris Vision Enhancement System (Bausch + Lomb) met all of these requirements. Since converting to this device, I have performed more than 2,500 surgeries with the platform.

FEATURES I FAVOR

Stellaris provides the robust performance I require to groove and cut dense cataracts. It enhances my ability to remove lens material efficiently with low phaco energy and exquisite vacuum control. Its vacuum aspiration capabilities allow me to pull segments out after manual or laser cataract fracturing better than I had experienced with my previous machine.

In addition to power and efficiency, safety is, of course, paramount. The features and flexibility of the Stellaris platform have enhanced my ability to deliver excellent postoperative outcomes, even in the most challenging cases, by minimizing the amount of phaco energy I need to use in the eye. I like that the wireless dual-linear foot pedal can be configured to provide separate linear control of both aspiration and ultrasound power, because it allows me to increase vacuum or apply a phaco burst instantly, when necessary. For epinuclear removal/cleanup, I just use vacuum; I do not even have ultrasound on unless I need it. If a little ultrasound is needed, I simply move my foot to the right to get a burst of controlled energy. Many surgeons are now considering infusion control for their procedures. In my hands, the Stellaris, with the Digiflow infusion control system (designed to digitally control the fluid flow), has allowed me to obtain excellent chamber stability. All of these factors combine to allow me to complete cases more safely and efficiently than ever before.

My staff has noticed the efficiency of Stellaris as well. Many of them were initially reluctant to switch after using the same platform for 13 years. Because we operated with both our

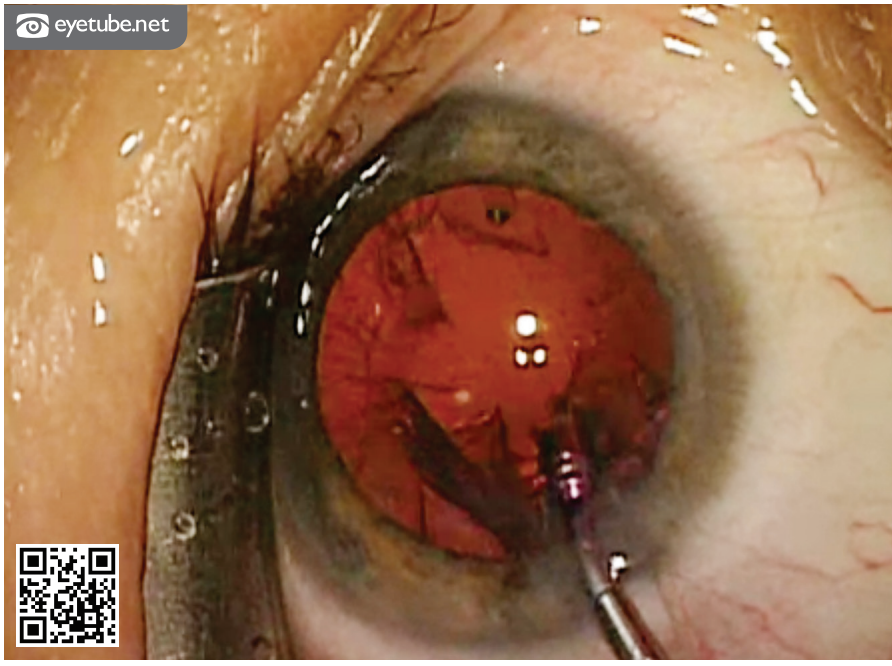

Figure 1. In the video (eyetube.net/?v=obiru), I use Stellaris to remove a red cataract.

new and old machines during the transition period, it quickly became obvious to everyone that the more difficult cases were completed more easily and smoothly on Stellaris. They soon began diverting the more difficult cases to the Stellaris Vision Enhancement System. Even the newest observers, including a nurse anesthetist who joined our staff just 2 months prior, noticed the difference.

Many of the points I have described here are further demonstrated in the video (Figure 1) in which I am using Stellaris to remove a red cataract. First, I use phacoemulsification to groove and then continue grooving and chopping. Stellaris removes individual nuclear segments very well, with no chatter and excellent chamber control. I am then able to remove epinuclear material with vacuum and engage ultrasound when needed, which adds safety and efficiency. Next, I use a J-cannula to hydrodissect subincisional cortex and residual epinucleus, a technique I have used since starting to perform phacoemulsification. I find that it is especially helpful with laser cataract surgery and that it makes the cortex much easier to remove. Finally, irrigation and aspiration of the cortex proceeds very efficiently, and then an enVista IOL (Bausch + Lomb) is inserted (Figure 2).

In addition to its performance, the cost-efficiency of the device has really hit home for my practice. It is one of the least expensive systems to operate due to its relatively inexpensive equipment maintenance and pack options. I find that the platform handles the densest cataracts and performs beautifully for patients who choose a premium lens and laser procedure. While I selected Stellaris based on my practice's needs, another version of the platform performs both cataract and vitreoretinal procedures, offering an additional cost-efficiency for ambulatory surgery centers that have retinal specialists on staff.

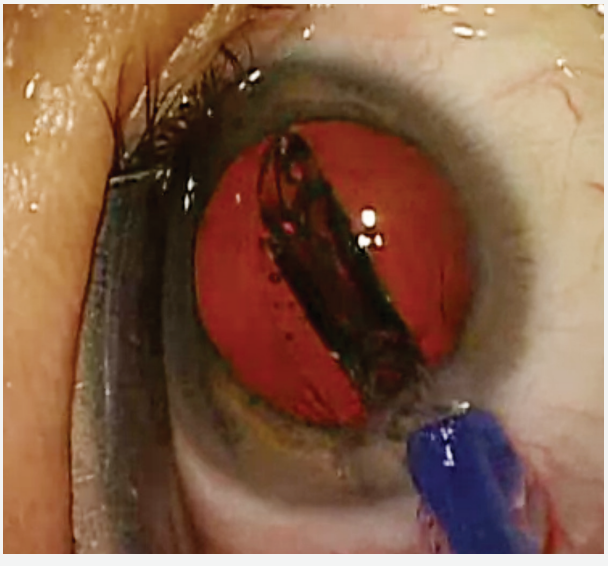

Figure 2. Irrigation and aspiration of the cortex proceeded very efficiently, and then an enVista IOL was inserted.

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In thinking about this conversion experience, it is clear that employing the combination of cutting-edge technologies like Stellaris and femtosecond laser platforms has allowed me to continue advancing my techniques. After 31 years and more than 50,000 cataract surgeries, I feel like I am doing the best surgery of my career.

CONSIDERATIONS

If you are considering changing your phaco platform, I would suggest you consider the following:

No. 1. Know your practice. Know your patients. You need to have a machine that will do well for what you are doing. I knew I needed something that would handle a high proportion of challenging cases as well as a growing volume of laser surgeries, so I evaluated each system's capabilities based on criteria that were specific to my practice and my patients.

No. 2. Talk to your colleagues, including those in your area. You want a system that will do the job and provide cost-efficiency, but good service is equally important. Talking to colleagues about their experiences can give you insight into the type of service you can expect. Time is extremely valuable to you, your staff, and your patients, and having your system out of service for even a day can have a big impact.

No. 3. Take a "test drive." While conferring with colleagues can help, nothing can give you better perspective on a platform's performance than having a machine brought in to try out for yourself. Every surgeon has his or her own techniques and preferences, so trying several different systems can help you determine which fits yours best. ■

Johnny L. Gayton, MD
- Eyesight Associates, Warner Robins, Georgia
- (478) 923-5872; jlgayton@aol.com
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