



## The Annual ACES/SEE Caribbean Eye Meeting delves into hot topics for anterior segment surgeons and health care professionals.

From February 5 to 8, 2021, the upcoming Caribbean Eye Meeting promises to be as engaging as in previous years. This one-of-a-kind meeting, held at Hyatt Regency Grand Reserve in Puerto Rico, will gather well-known leaders in ophthalmology to discuss important topics in eye care against the breathtaking backdrop of the Caribbean Sea. The American College of Eye Surgeons (ACES) and the American Board of Eye Surgery (ABES) were started in 1989, with ACES as the educational arm. ACES and ABES, along with the Society for Excellence in Eyecare (SEE), are proud to be entering the 31st annual meeting! Together, ACES, ABES, and SEE share a commitment to the belief that the primary focus for today's ophthalmologist must, and should, be to promote, encourage, and enhance quality ophthalmic surgical care for the benefit of all patients.



### PEARLS FROM THE DEEP: EFFECTS OF THERMAL PULSATION ON PRESURGICAL PLANNING

By Cynthia Matossian, MD, FACS

The accuracy of IOL calculations depends on the accuracy of the preoperative measurements. An unstable tear film reduces the quality of corneal reflections and can compromise keratometry readings,<sup>1,2</sup> which, in turn, can negatively affect IOL calculations and result in suboptimal refractive outcomes.<sup>1-5</sup> To measure the extent of the problem, I conducted a pilot study to determine whether thermal pulsation treatment with LipiFlow (Johnson & Johnson Vision) affected keratometry readings and surgical planning. The results were surprising.<sup>6</sup>

The study included 25 eyes of 23 patients with meibomian gland dysfunction who were scheduled for cataract surgery. Preoperative measurements were obtained at the first visit. They included keratometry readings with the IOLMaster 700 (Carl Zeiss

Meditec) and topography measurements with the OPD-Scan III (Nidek). IOL calculations were performed based on these measurements, and a plan for astigmatism management was created. Patients then received thermal pulsation treatment. Six weeks later, at visit 2, measurements were repeated by the same technician using the same equipment, and IOL calculations and astigmatism management planning were performed again.

Based on the second set of preoperative measurements, 40% of cases required a change in the surgical plan. Specifically, in 28% of cases, my surgical plan changed from no intervention for astigmatism to a limbal relaxing incision (LRI) or placement of a toric IOL. In 8% of cases, my plan changed from an LRI or toric IOL to no intervention. In 4% of cases, my surgical plan changed from a toric IOL to an LRI

(Table). In addition, 32% of cases required a change in axis orientation. Based on data obtained after thermal pulsation treatment, final refractive outcomes were precisely on target in 60% of eyes, within  $\pm 0.25$  D of the intended refraction in 88% of eyes, and within  $\pm 0.50$  D in 92% of eyes. ■

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Pre-TPS Plan	Count	POST-TPS PLAN			Total
		None	LRI	Toric	
None	7	7	6	1	14
LRI	2	2	4	0	6
Toric	0	0	1	4	5
Total	9	9	11	5	25

Table. Change in planned intervention after thermal pulsation (TPS).

- Seven eyes: plan changed from no intervention to limbal relaxing incisions (LRIs) or toric lenses after TPS treatment
- Two eyes: plan changed from LRI or toric lenses to no intervention
- One eye: plan changed from toric lenses to LRI
- 15 eyes: planned intervention unchanged

To learn more about the 2021 Caribbean Eye Meeting and register to attend, visit

[caribbeaneyemeeting.com](http://caribbeaneyemeeting.com)