Presbyopic Surgery: Reaching the 'Point of No Return'

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By the time I turned 55, I was wearing spectacles when driving and also when reading. In every corner of my practice and in my own home, I had readers lying around. I had mixed astigmatism of +0.63 -1.00 X 103° in my right eye and simple myopic astigmatism 0.00 -0.50 X 93° in my left. My UDVA was 20/12.5 binocularly, yet there was no denying my presbyopia. With increasing frequency, my patients asked me why I continued to wear reading glasses.

My so-called "point of no return" was when I lost my readers during the ZEISS Refractive Laser Symposium in June 2016. While attempting to take notes on a lecture by Dan Z. Reinstein, MD, MA, FRCSC, DABO, FRCOphth, FEBO, on PRESBYOND, I had to change the font size on my laptop from 12 to 16 and make the text bold in order to read it. After the symposium, I asked Dan to perform PRESBYOND surgery on my eyes, as I wanted the procedure to be done by the surgeon in that field with the most experience worldwide.

THE BIG DAY

Dan performed my surgery in November 2016, the day before a course on PRESBYOND and SMILE being held at London Vision Clinic. The procedure time was 11 minutes, and I did not feel any pain or pressure from the contact glass and suction ring. It was like entering a black tunnel, where at the end I could clearly see the green blinking light. Once the air bubbles reached the center of my pupil, the spot disappeared and it was very easy to keep my eye still. Dan talked to me throughout the procedure, which gained my confidence.

After only 2 hours, I sent my first whatsapp to my wife—without glasses! Instilling the artificial tears into my eyes every 15 minutes was uncomfortable, as it burned slightly. By nightfall, however, the discomfort wore off and I was able discover London's nightlife without glasses.

On day 1 postoperative, my visual acuity was 20/40+1 in the right eye, 20/20 in the left eye, and 20/16 binocularly. My near vision was N4, allowing me to read extremely small print, and the manifest spherical equivalent refraction was -1.50 D (20/16) in the right eye and 0.25 D (20/16+2) in the left. The topography showed nice centration, with corneal spherical aberrations of almost 0 in both eyes. I attended the course on PRESBYOND that day and was able to watch the lectures, take notes, and present slides on my experience to the attendees.

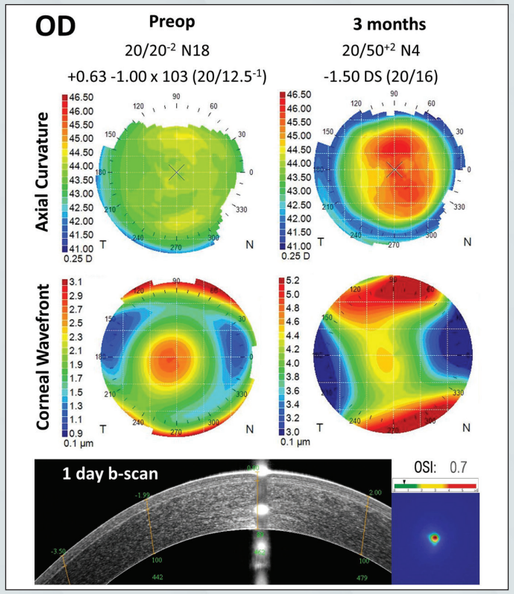

Figure 1. UDVA, UNVA, manifest refraction, CDVA, corneal topography, and corneal wavefront before and 3 months after PRESBYOND in the right eye. The OCT B-scan at 1 day and HD Analyzer optical scatter index at 3 months are also shown.

I was well instructed that I would face a neural adaptation period of about 1 month to get used to the cross blur, a phenomenon that I did experience. It was amazing to witness how flexible our brain is to compensate for this blur. Another side effect of the procedure that I experienced was some fuzziness around light sources. This effect dissappeared after about 6 weeks. Because I also had some meibomian gland dysfunction preoperatively (25% decrease of meibomian gland function), I needed to use artificial tears every 30 minutes for 6 weeks. I also had transient light sensitivity for some weeks, but this completely disapeared. I did not, however, notice any halos.

PERSONAL ENDORESMENT

Undergoing PRESBYOND and no longer needing to wear glasses has made me feel younger again. It is practical in my daily work—when I have to find a nylon 10-0 suture in the surgical field, when I have to type on my mobile phone, when I have to probe a lacrimal punctum, when I am positioning the patient interface in ReLEx SMILE surgery or the liquid interface optic in Catalys (Johnson & Johnson Vision) surgery, when I have to put fluorescein on the cornea, or when placing my tri-mirror glass.

In my leasure time, I enjoy running and golfing, and I can now see the details on my watch and fill in my score card on the golf course with ease. The only countereffect I still feel is blurred distance vision when something blocks my left dominant eye, but turning my head automatically solves this issue.

WHY PRESBYOND?

Besides PRESBYOND, I offer laser-assisted lens exchange to presbyopic patients, with patient selection criteria depending on many factors including age, prescription, transparency of the natural lens/cataract, and patient expectations. My first choice in a hyperopic patient with more than 4.00 D and in myopic patients with lens opacities visible on slit-lamp examination is lens-based surgery. For all other patients with myopia and/or myopic astigmatism and for plano presbyopes, we believe that they are ideal candidates for PRESBYOND surgery. Therefore, PRESBYOND Laser Blended Vision is proposed to those patients, who are usually between the ages of 45 and 60—the patient group I belonged to.

PRESBYOND was the right choice for me, and I am happy with the outcomes. Now that I have undergone PRESBYOND, I more enthusiastically suggest the procedure to my patients, and my patients feel more confident in me because I have had the procedure in my own eyes. What better proof can you have than a doctor considering the risks and benefits to be good enough for himself on a procedure he recommends to patients? I nominate all surgeons who perform LASIK and are still wearing reading glasses or varifocals to take the 'ice bucket challenge' and take his own medicine.

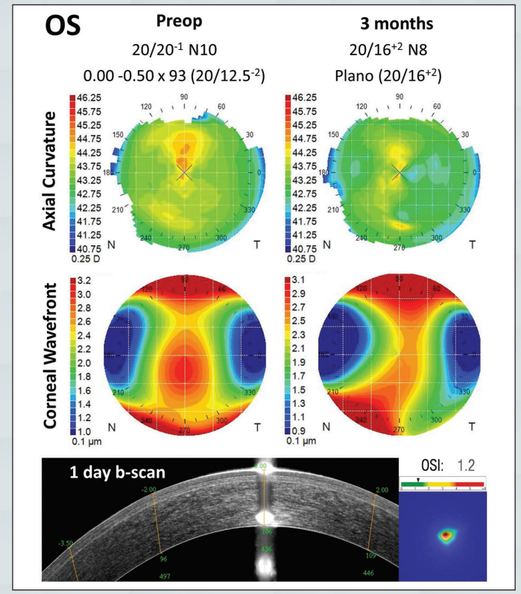

Figure 2. UDVA, UNVA, manifest refraction, CDVA, corneal topography and corneal wavefront before and 3 months after PRESBYOND in the left eye. The OCT B-scan at 1 day and HD Analyzer optical scatter index at 3 months are also shown.

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