Binovision – A new Approach for Seeing without Glasses

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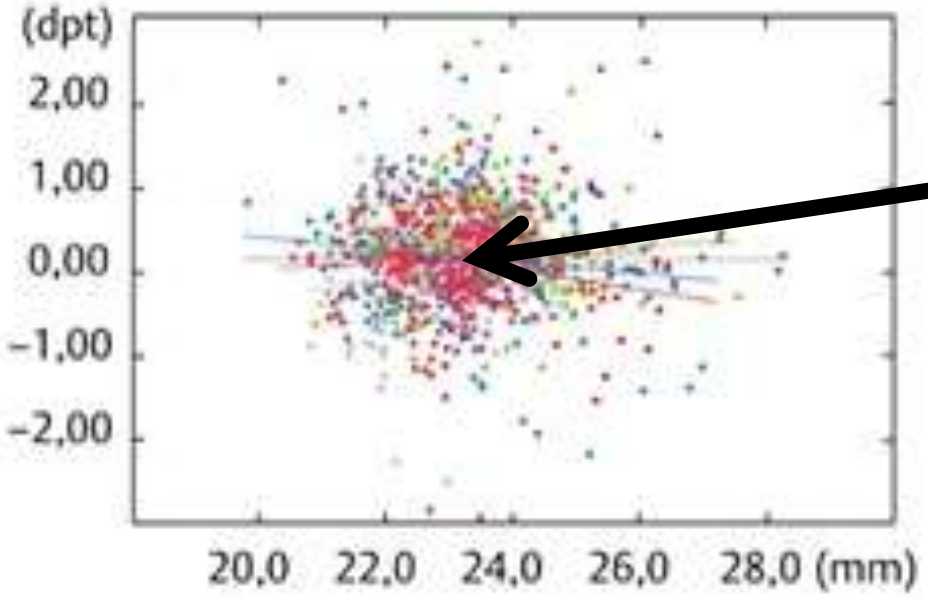
Why did I need the Light Adjustable Lens?

I, like most of us, was far away from a precise achievement of targeted refraction in all cases.



targeted refraction
(standard lenses, multifocal lenses)

Courtesy of Preussner, Mainz 2007

The Light Adjustable Lens allows

- a correction of astigmatism up to 2.00 D
- a correction of residual refractive errors of up to +/- 2.00 D spherical

post-operatively.

From October 2008 until Jan. 2012, I have implanted the Light Adjustable Lens into 183 eyes

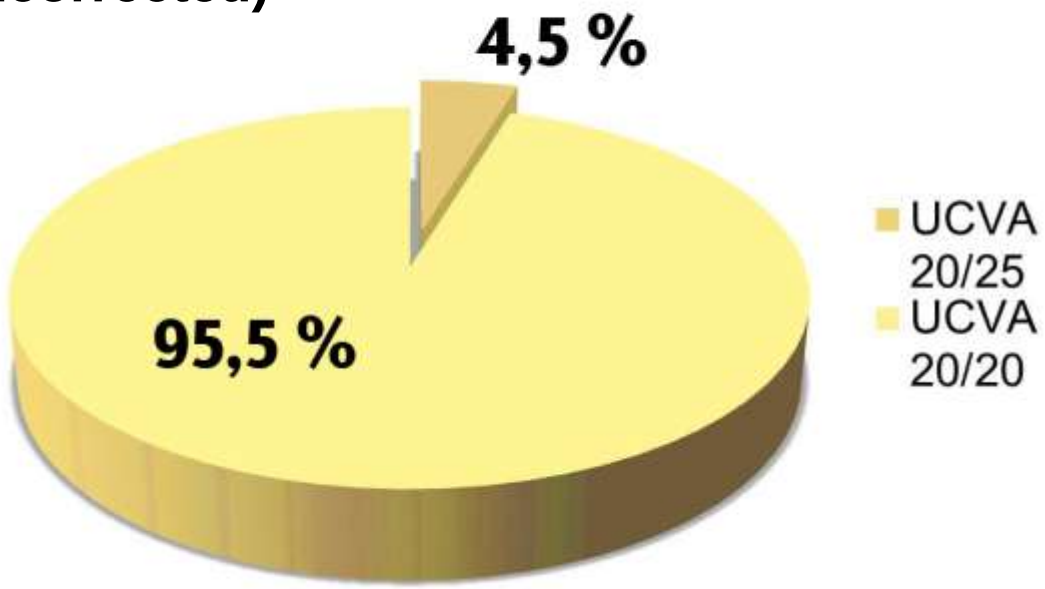
- with 93 eyes adjusted for distant vision
- with 55 eyes adjusted for near vision.

164 eyes are presented here, 4 patients (8 eyes) are still waiting for the adjustment.

We found 27 eyes with a complicated initial situation like amblyopia, strabism or AMD (future presentation).

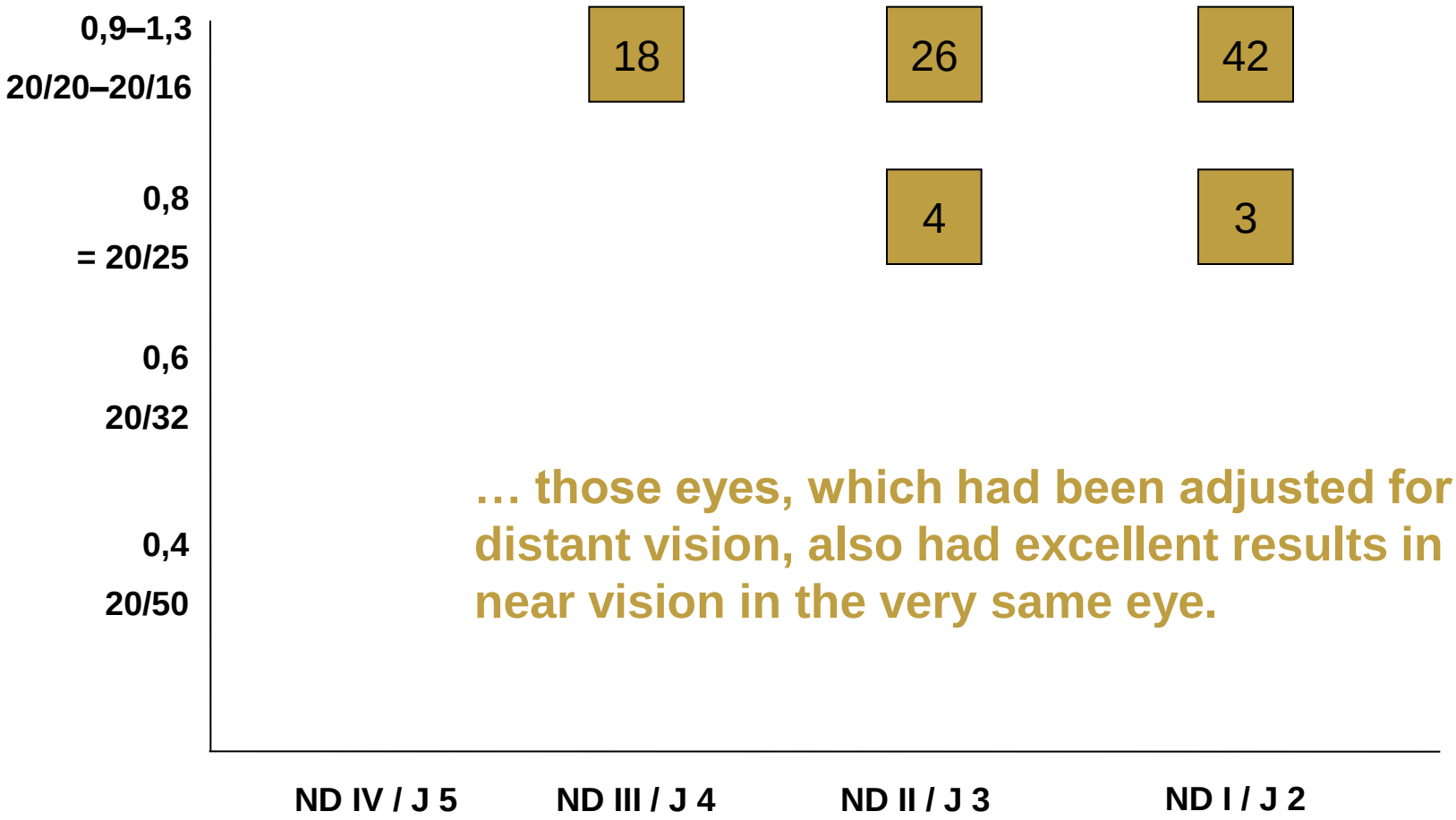
Adjustment of Distant Vision

(uncorrected)



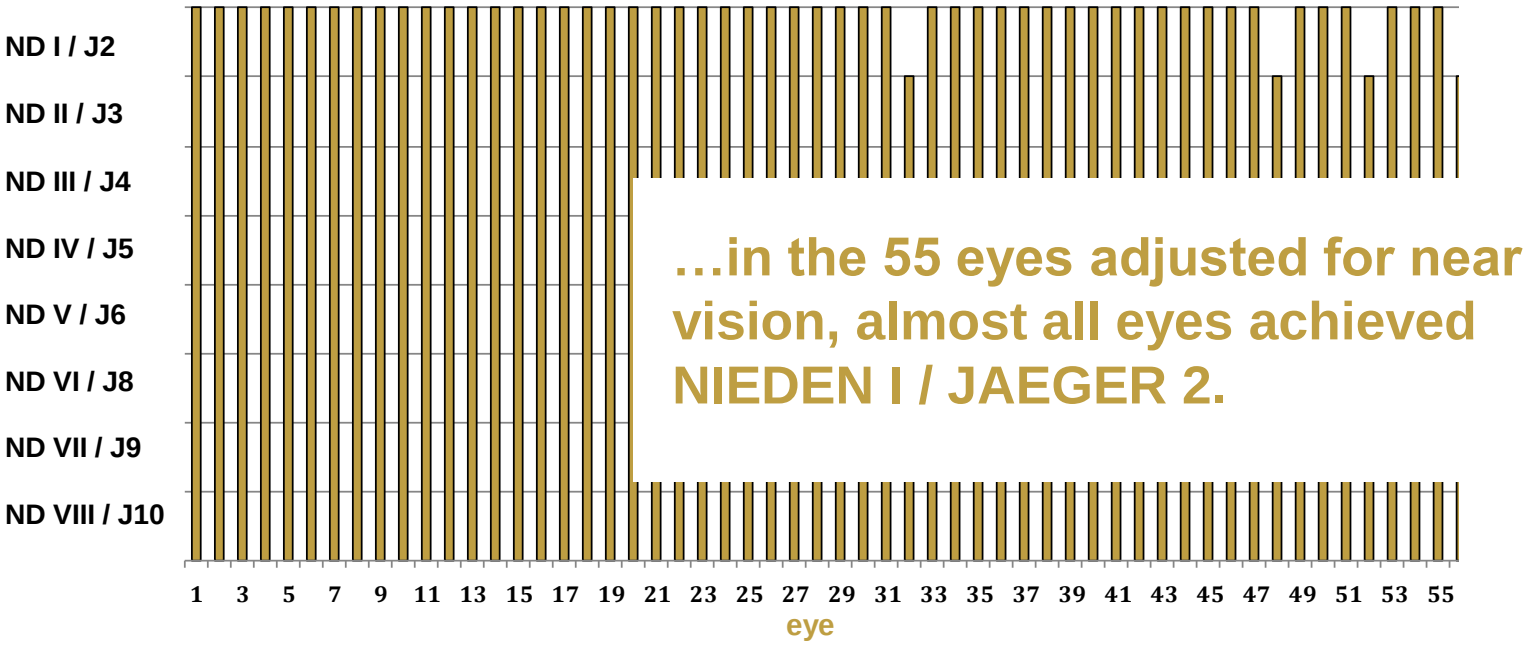
In the 93 eyes adjusted for distant vision, almost all eyes (86 out of 93), had an UCVA of 20/20 or better…

Distant Vision versus Near Vision
(uncorrected)



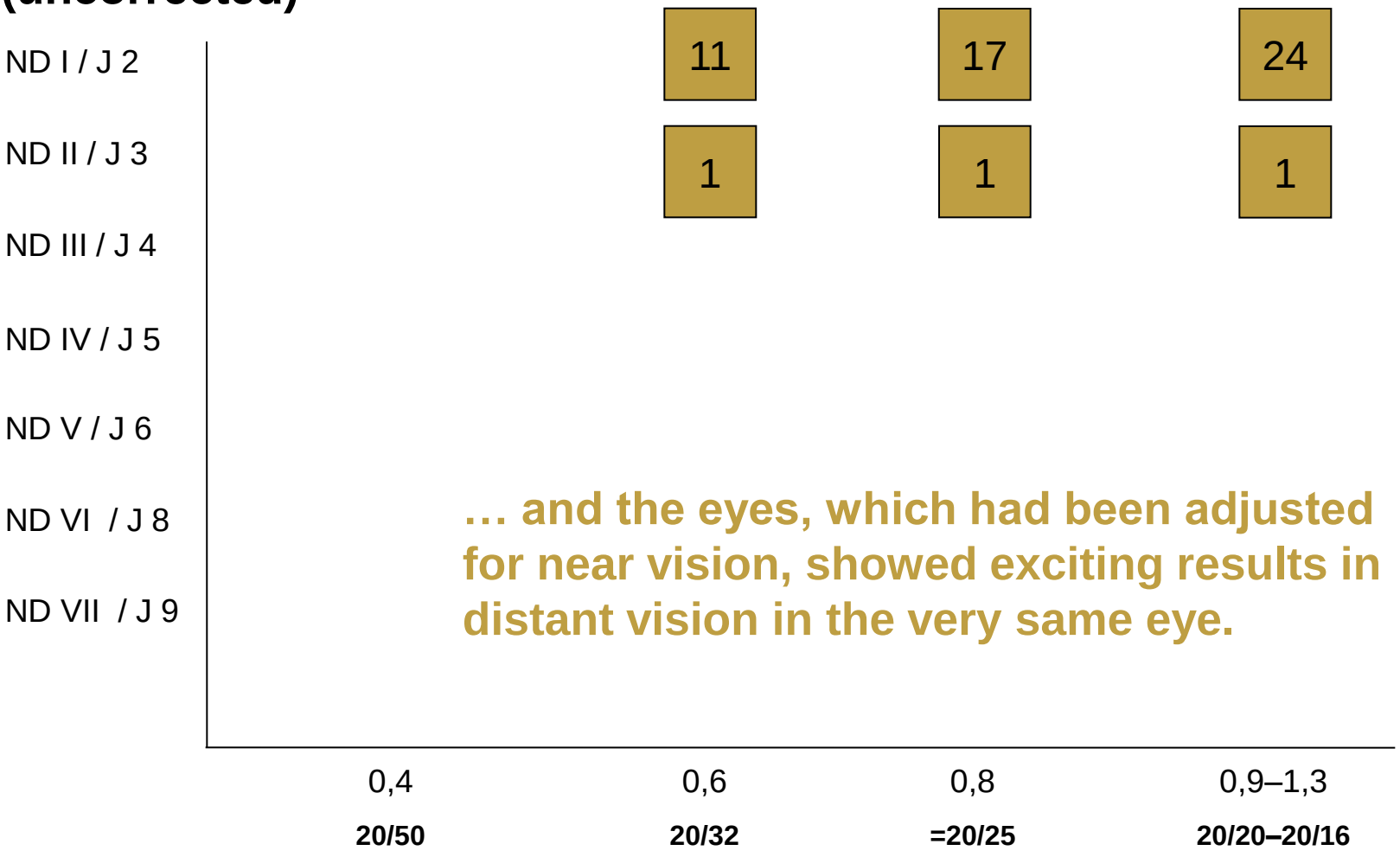
… those eyes, which had been adjusted for distant vision, also had excellent results in near vision in the very same eye.

Adjustment of Near Vision
(uncorrected)



Near Vision versus Distant Vision

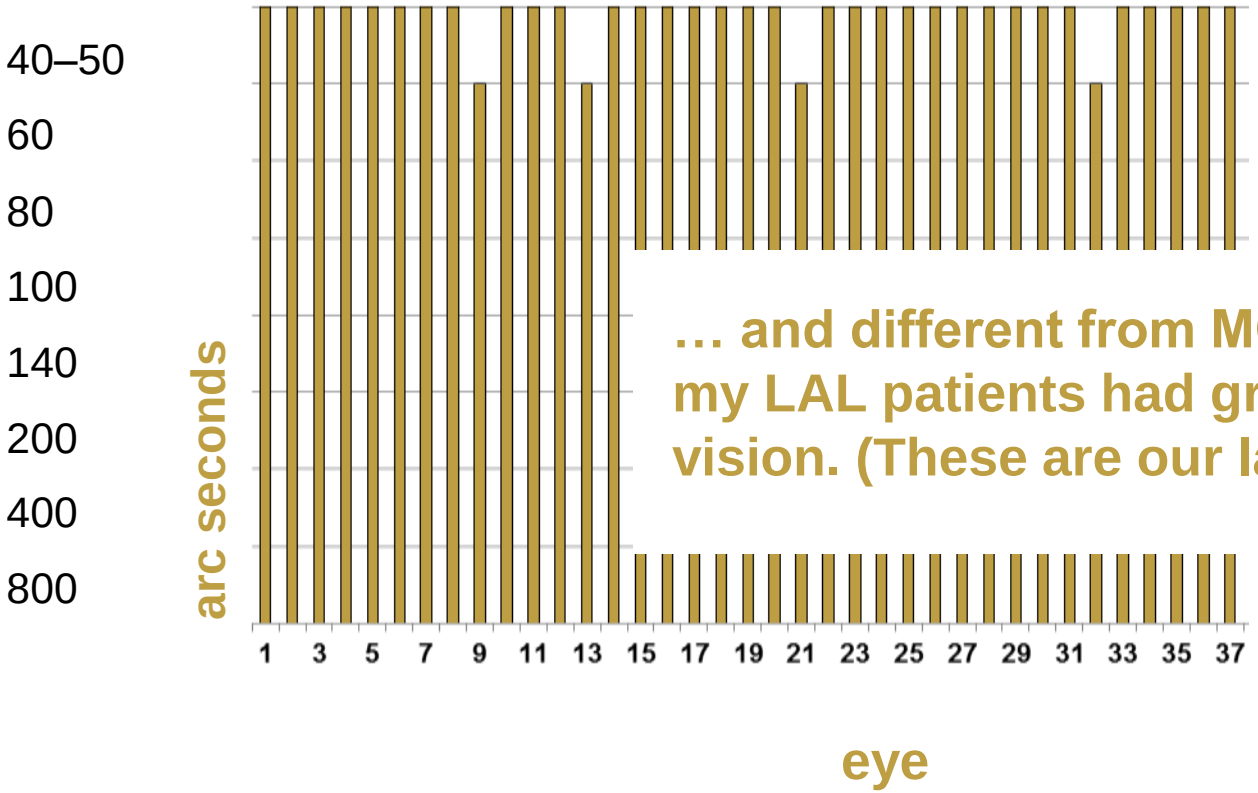
(uncorrected)



… and the eyes, which had been adjusted for near vision, showed exciting results in distant vision in the very same eye.

Stereoscopic Vision

Titmus-Test

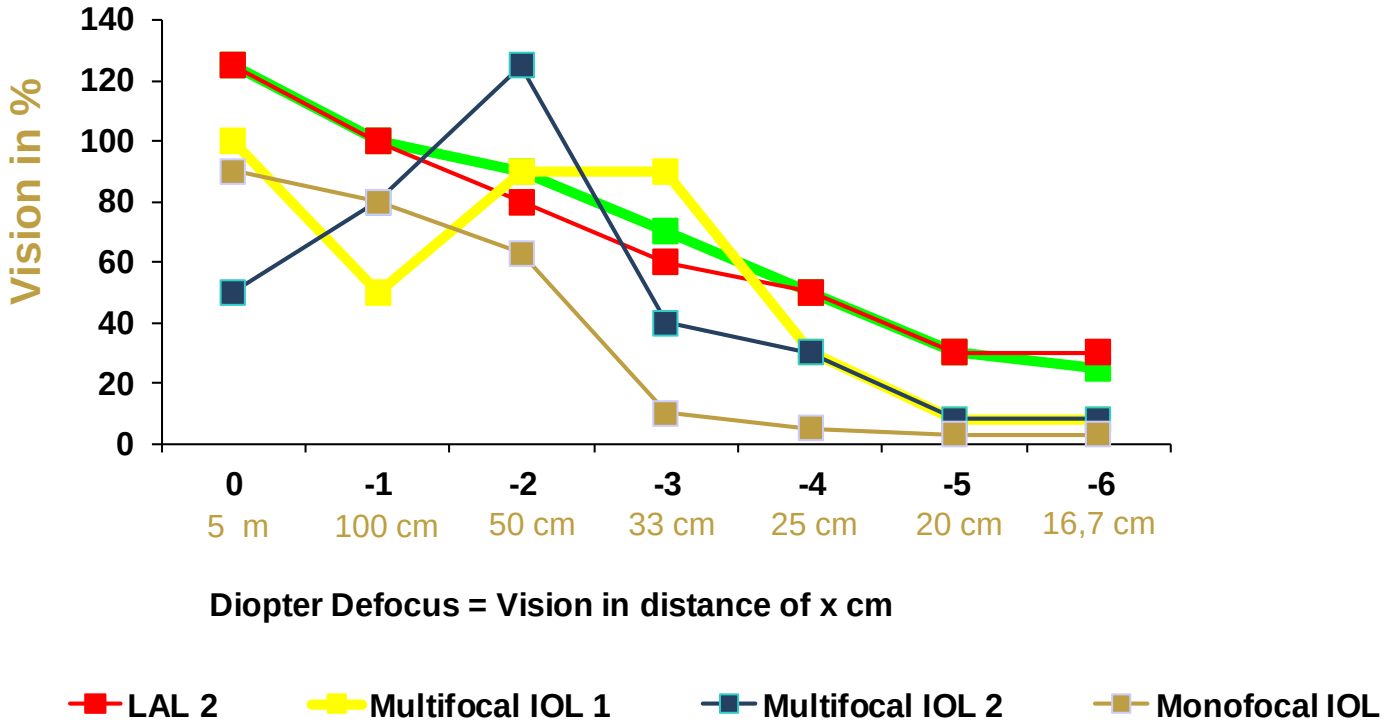


… and different from MONOVISION, my LAL patients had great stereoscopic vision. (These are our last 37 patients)

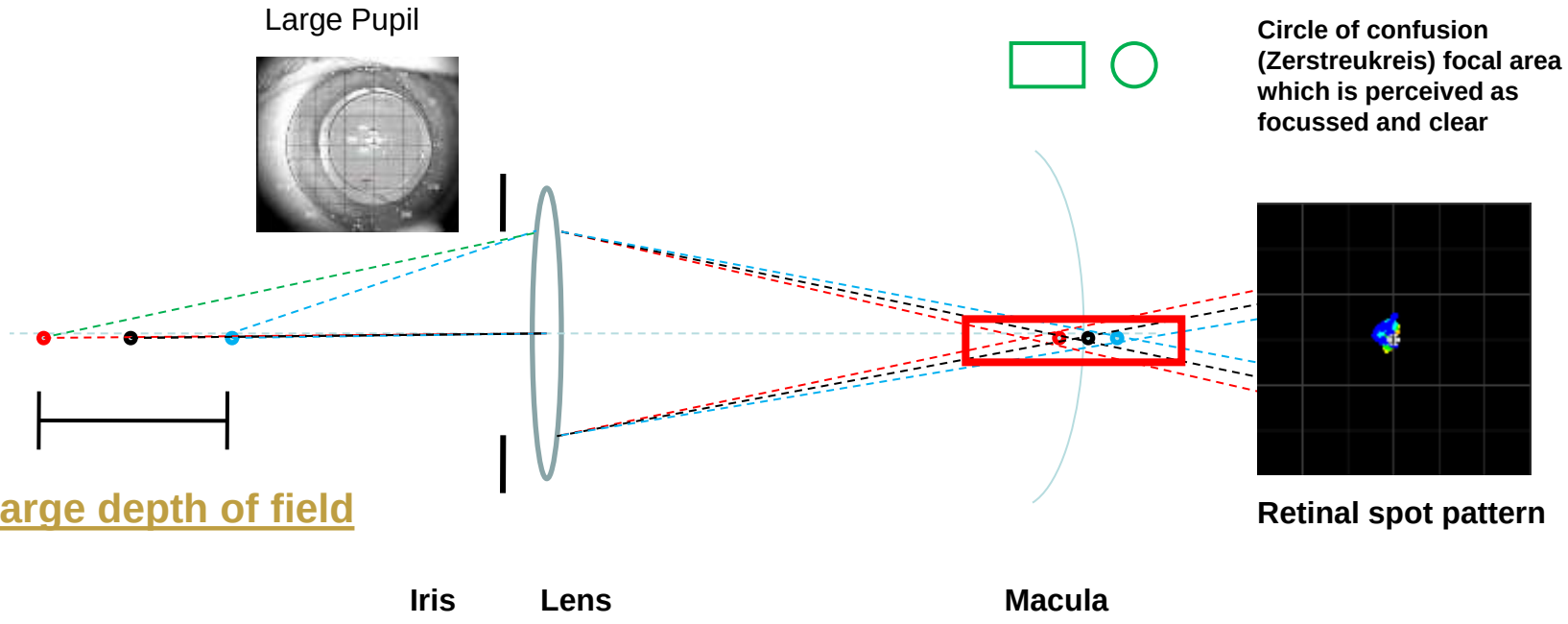
The LAL seems to create Asphericity

Defocus Curves

… different from the multifocal and standard IOLs, the defocus curves of the LALs indicate asphericity, repeatability and are superior to standard IOLs at all distances.

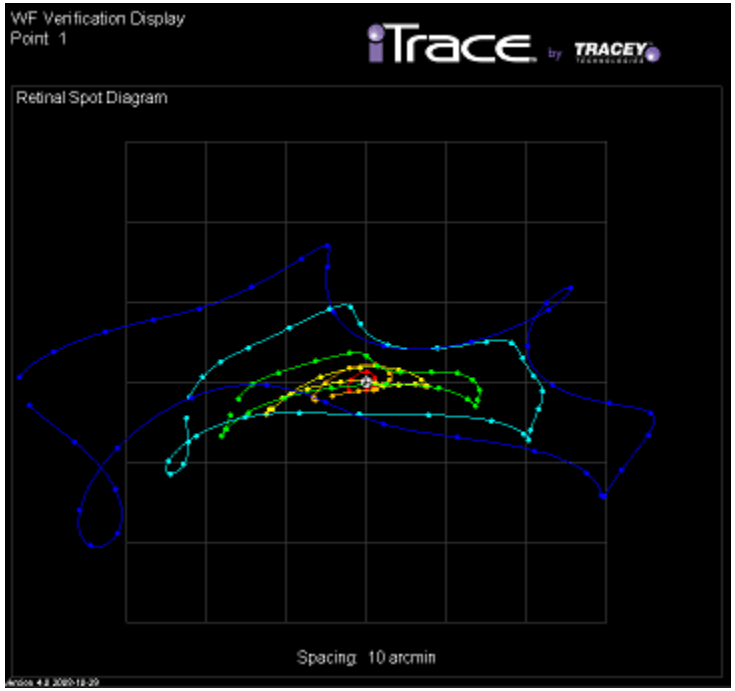


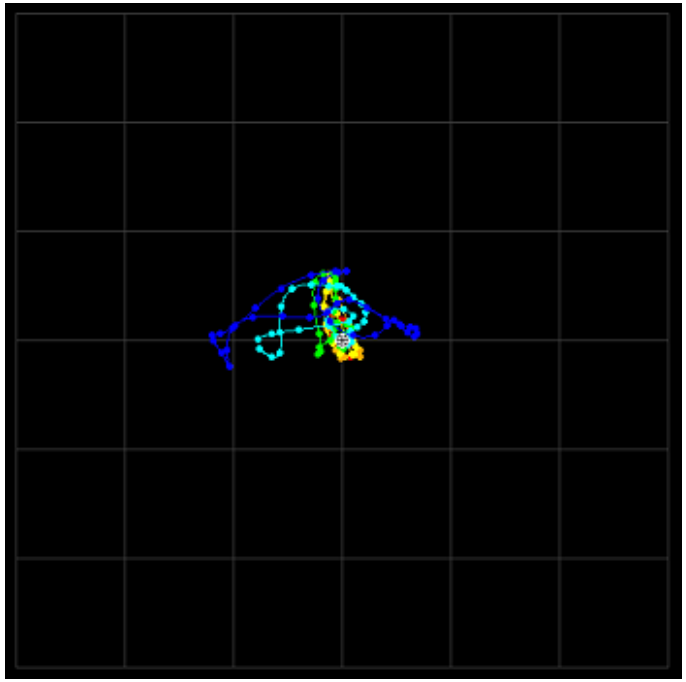
iTrace demonstrates good Depth Perception of Calhoun LAL



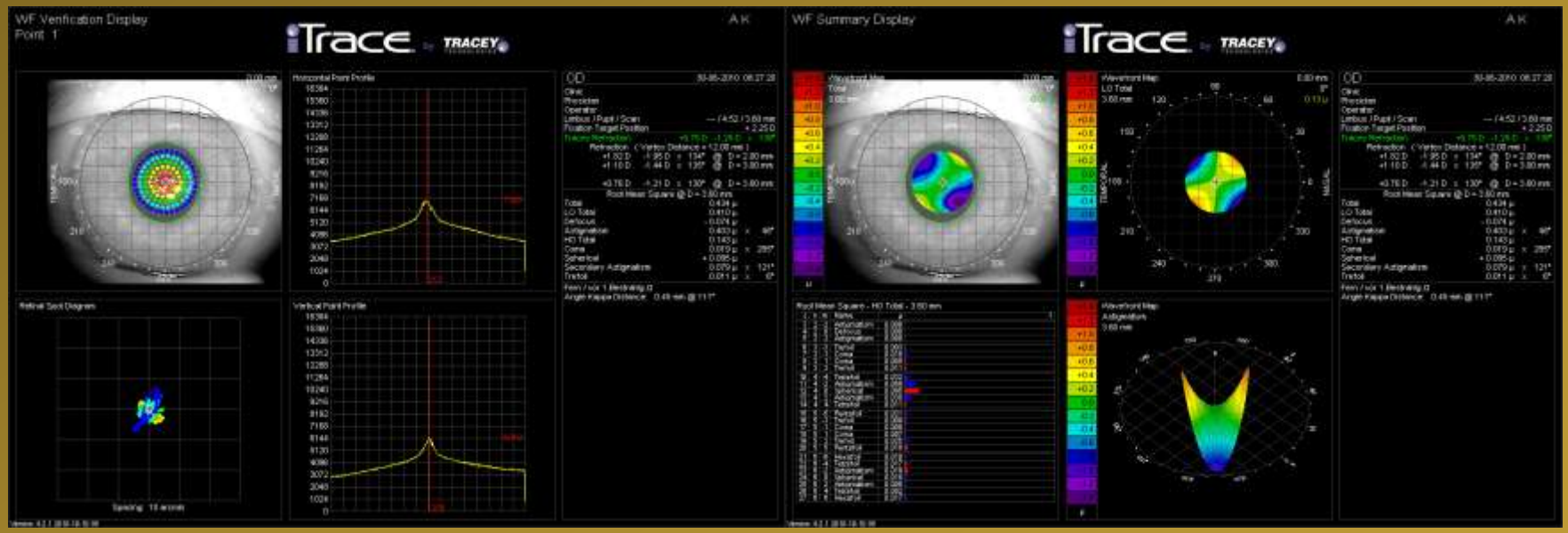
With a large aperture (Iris) a sharp image depends on the optimized curvature (asphericity) of the lens.

Ray Tracing Aberrometry (Tracey iTrace) was done before and after Light Adjustment.



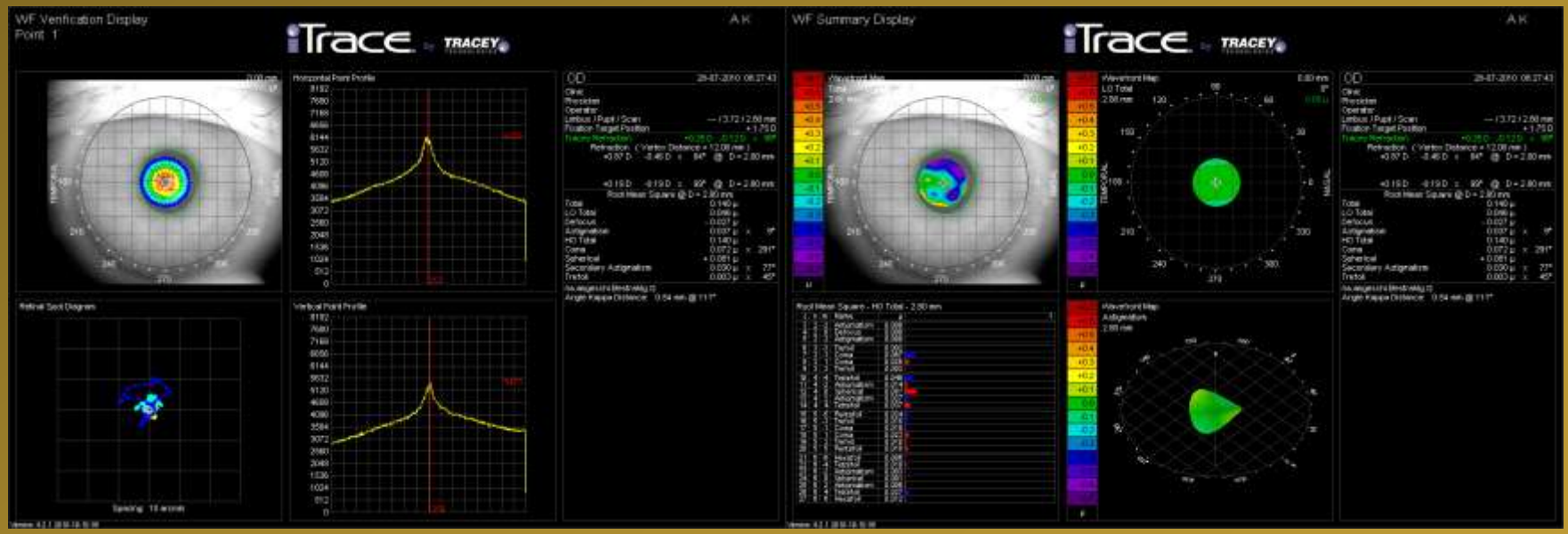


Patient 1: prior to 1st adjustment

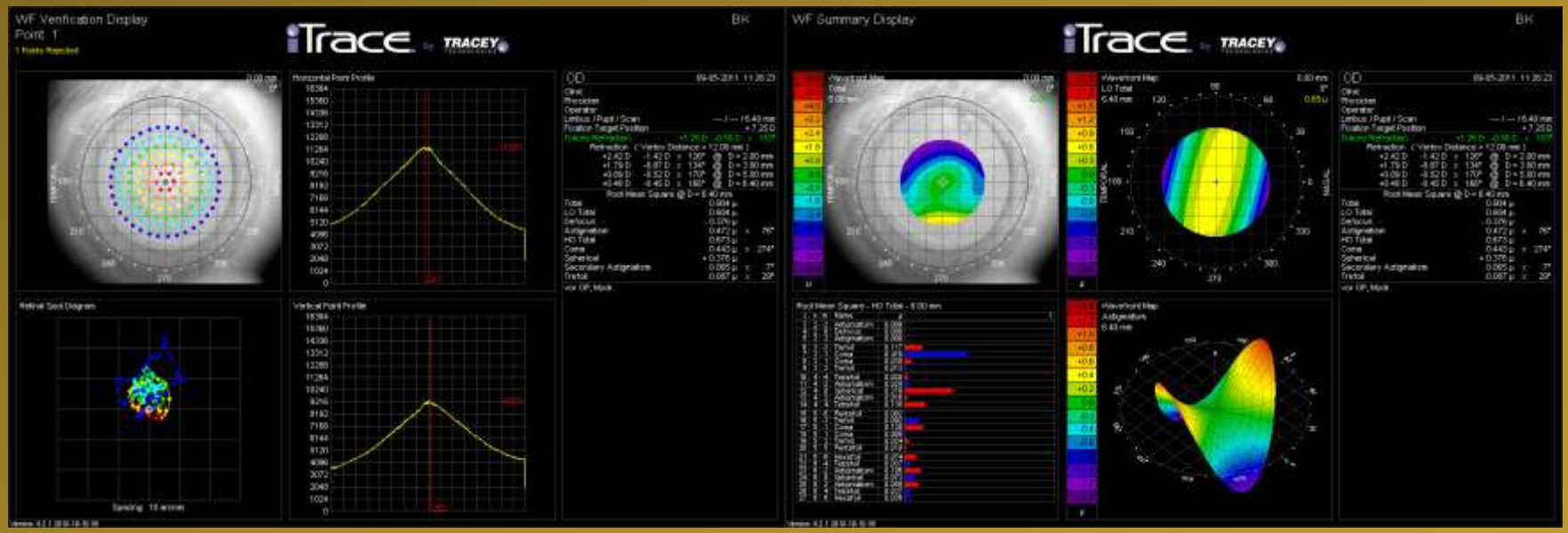


Patient 1: after 1st adjustment

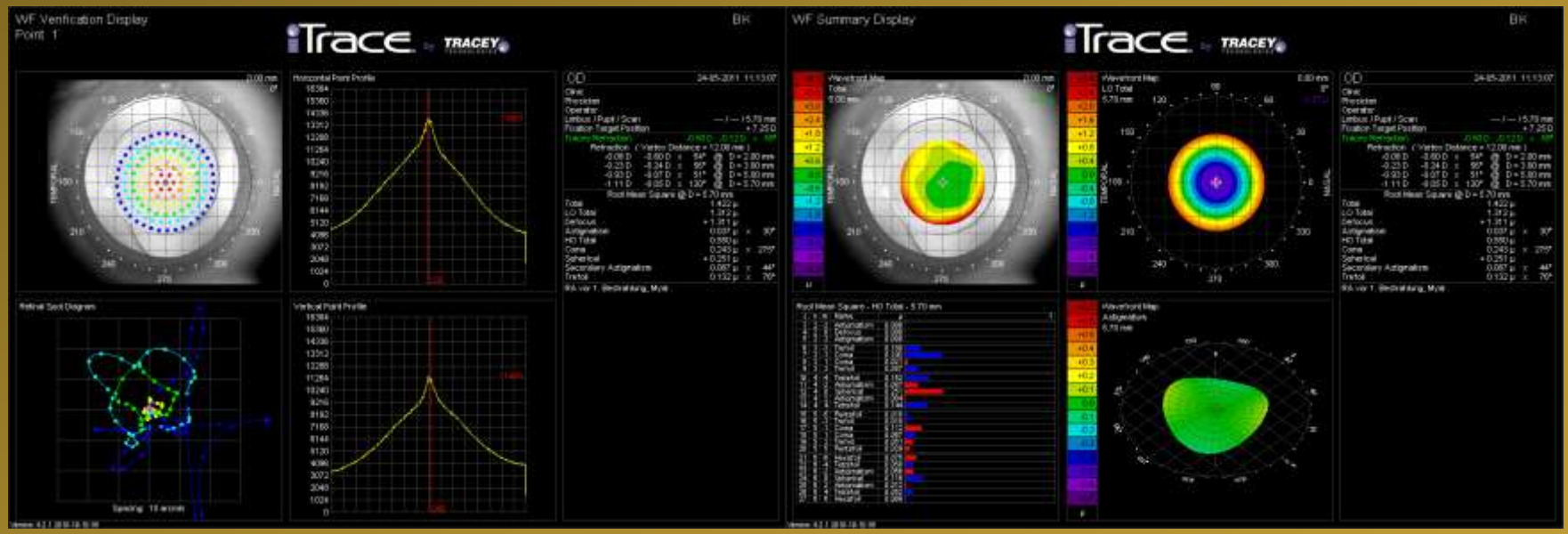
Patient 1: after lock-in



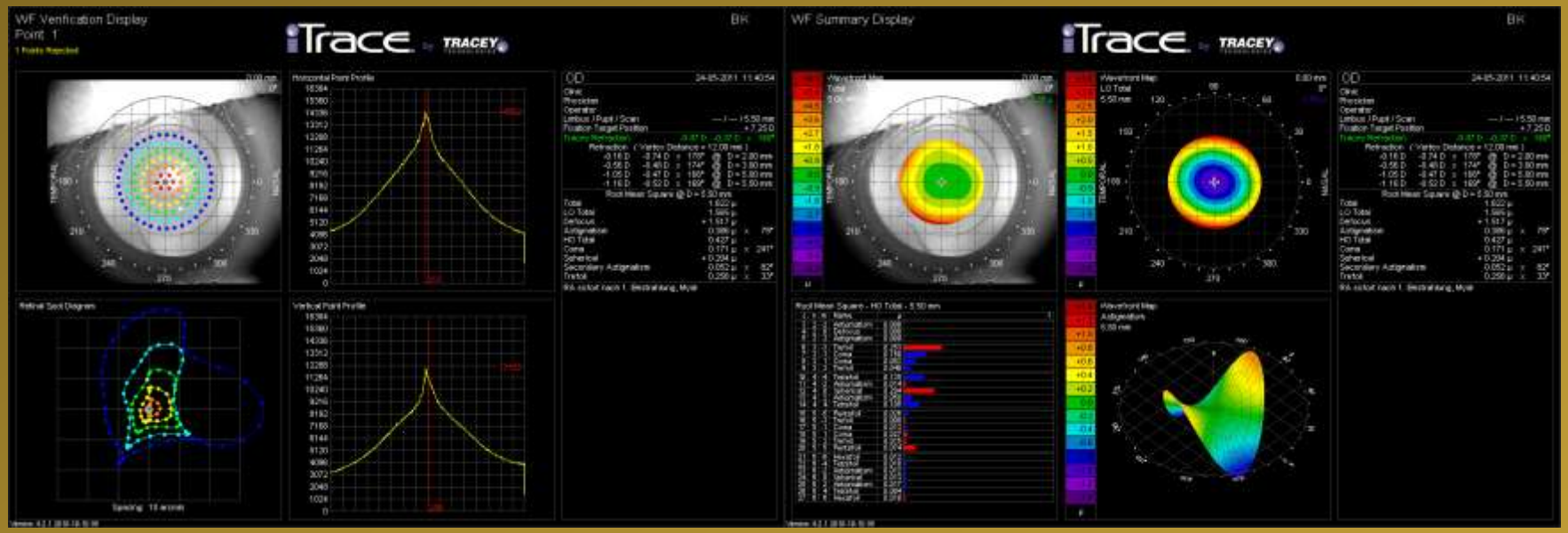
Patient 2: pre-OP



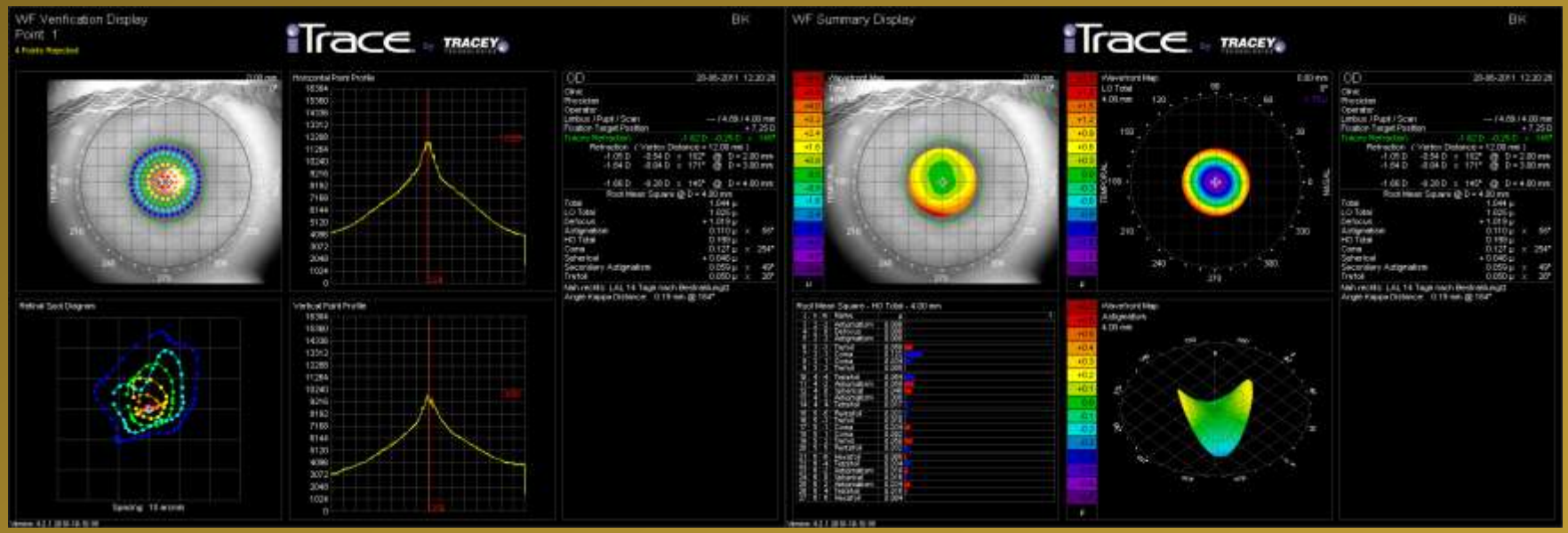
Patient 2: prior to 1st adjustment



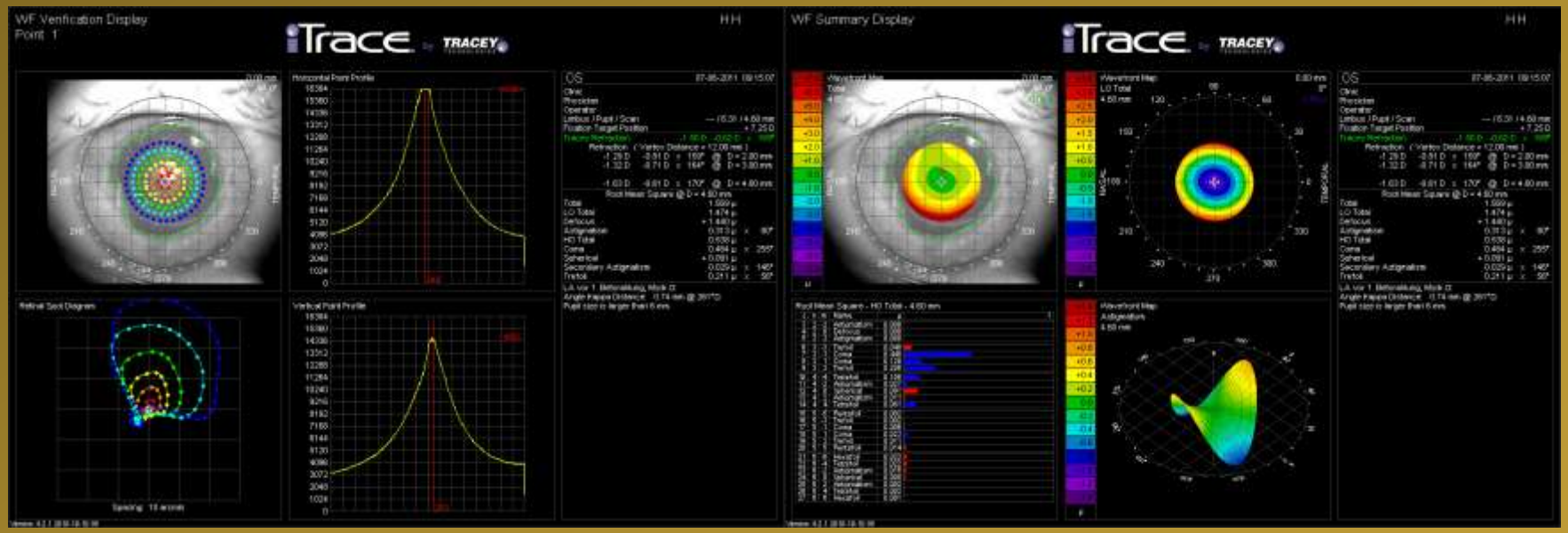
Patient 2: after 1st adjustment



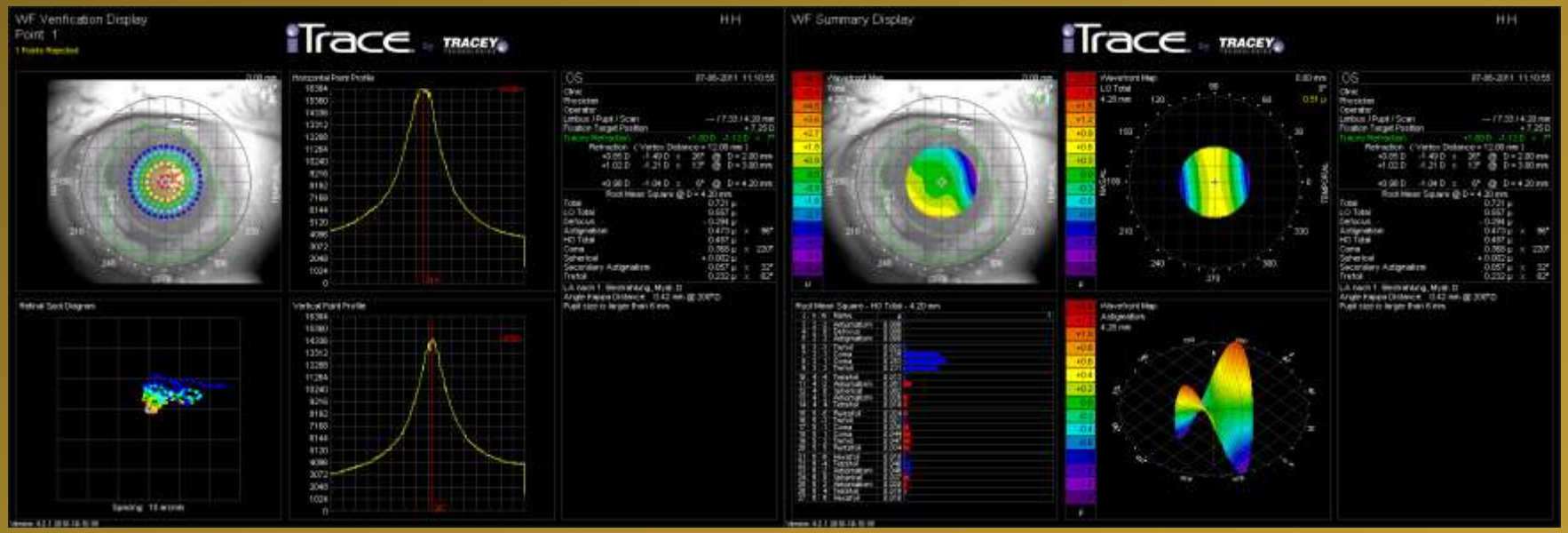
Patient 2: 2 weeks after lock-in



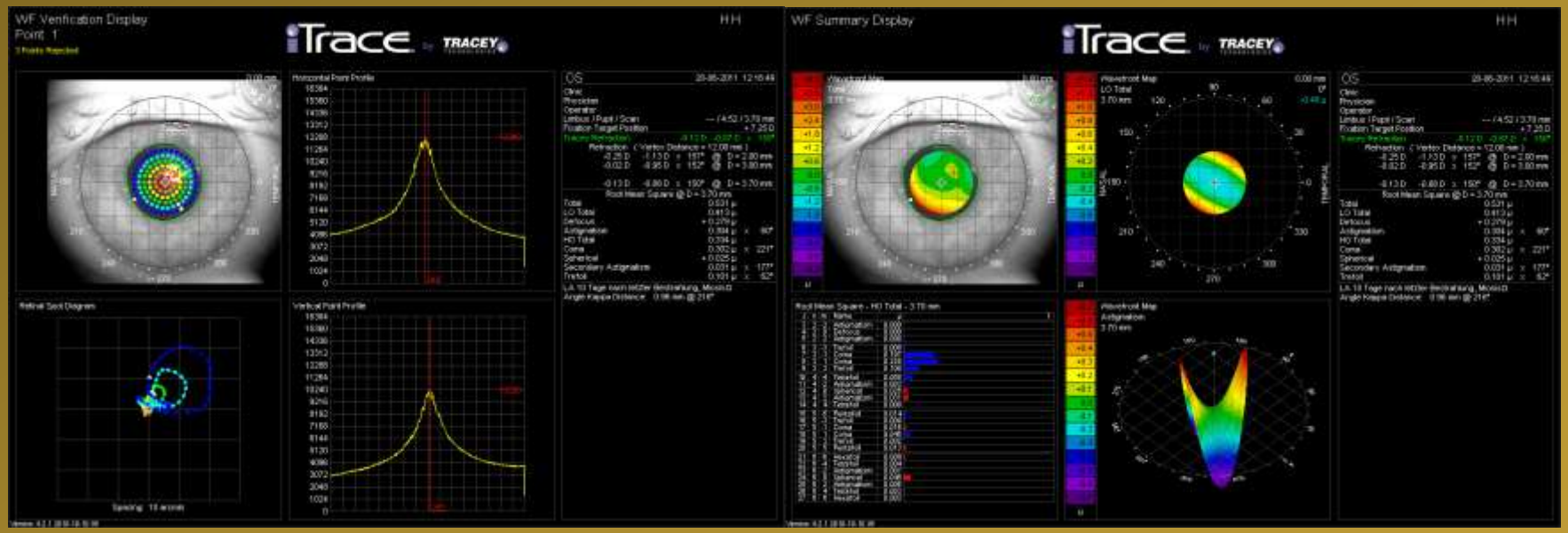
Patient 3: prior to 1st adjustment



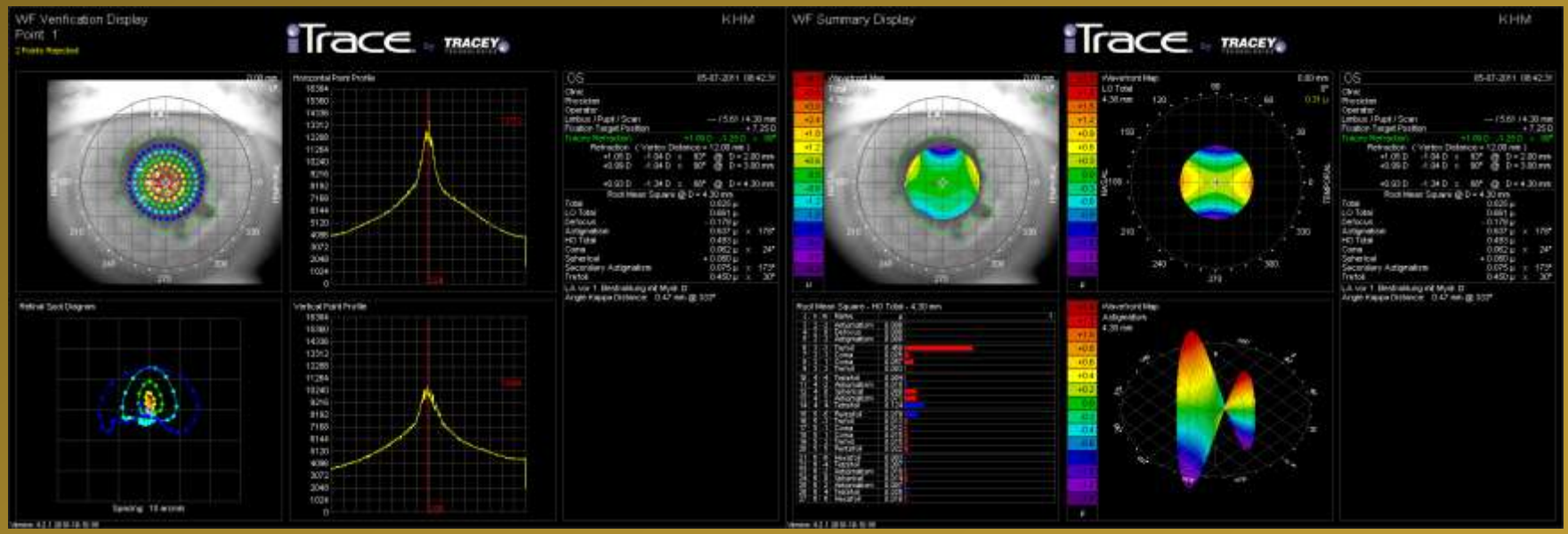
Patient 3: after 1st adjustment



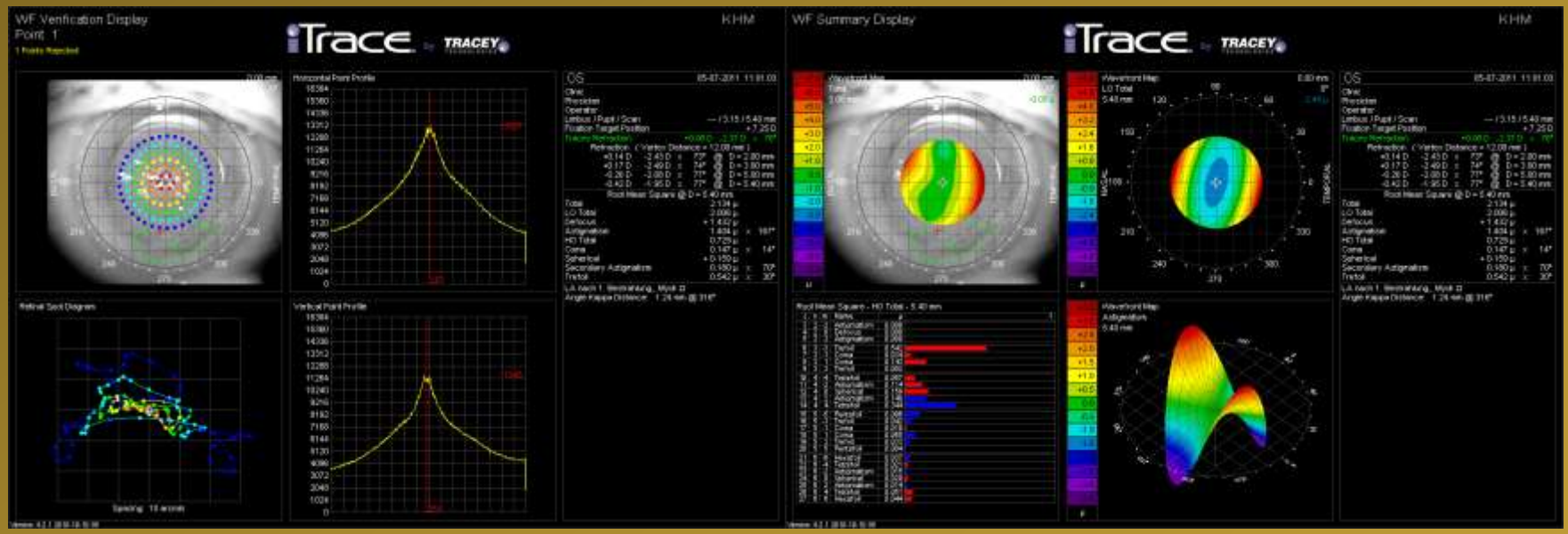
Patient 3: 10 days after lock-in



Patient 4: prior to 1st adjustment



Patient 4: after 1st adjustment



Patient 4: 2 weeks after lock-in

Why BINOVISION?

After implanting the first lenses,
without glasses our patients noticed

- good reading, intermediate and distant vision
- good stereoscopic vision
- very good depth perception
- excellent quality of vision (patient reports).

BINOVISION is seeing without Glasses by Modification of Asphericity of the LAL

- Adequate near, intermediate and distant vision in the same eye without glasses
- Stereoscopic binocular vision at all distances (near, intermediate and distance)
- superior vision compared to that provided by other lens based and refractive methods presently used

In our clinic we use the possibility of modification of asphericity of the LAL as a highly satisfying alternative for patients who desire presbyopia correction and seeing without glasses.

LAL offers the most valuable possibilities for our patients and Binovision with the LAL is the pink of perfection.

BINOVISION

Seeing without Glasses

The answer we've been all waiting for.

Thank You!

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