BLENDED VISION OUTCOMES WITH A HYDROPHYLIC ACRYLIC UNIPLANAR BI-ASPHERIC IOL
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BLENDED VISION

• Began using the Softec HD April, 2010
• Hydrophyllic acrylic uniplanar bi-aspheric IOL, 26% water
• 5.75mm optic, 12 mm length
• Square edges
• Lenstec, Inc. St. Petersburg, Florida
METHODS

• Anecdotal evidence of “good near vision” from staff
• Prospective data collection
• Patients implanted between June 10 and October 14, 2010
• Eyes with $\leq 1.0$ D cylinder
• Eyes had BCVA of 20/30 or better
BLENDED VISION PROTOCOL

- 32 patients bilateral surgery 2 wks apart
- Follow up 1 month s/p 2\textsuperscript{nd} eye
- Dominant eye targeted for 0.0 ± 0.25D
- Fellow eye targeted for -1.00 ± 0.25D
- BUCVA dist and near and pt preferred dist
- Near point of focus in near eye
- Unaided near Titmus stereopsis
RESULTS

- BCVA distance 20/23(±6.6)
- Binocular UCVA distance 20/25 (±6.7)
- Binocular UCVA near 20/32(±14.8)
- Achieved SE vs targeted SE -0.01 (±0.58)
- Near eye SE -1.11D (±0.57)
- Residual Cylinder 0.4D (±0.34)
Cumulative Unilateral Distance VA

Percent

20/20 or better  20/25 or better  20/30 or better  20/40 or better  >20/40

UCVA  BCVA

NEWSOMEYE  SEEING IS BELIEVING.
Unilateral Near Performance in Eyes Targeted for Distance

Percent

Mean: 16.8 inches
Unilateral Best Corrected Near VA for Both Eyes - Mean Add of 2.17D(±.22)

Percent

J1+ or better J1 or better J2 or better J3 or better J4 or better J5 or better J6 or better J7 or better J8 or better J9 or better J10 or better J16 or >J16

14 Inches Preferred Distance Mea 16.2 inches

NEWSOMEYE SEEING IS BELIEVING
UNCORRECTED BINOCULAR NEAR RESULTS

- Mean near VA 20/32(±14.8)
- 90% read J3 or better
- Unaided stereopsis 71 arc seconds
- Near SE -1.11D
- Near eye near POF 38.14cm (15 inches)
UNCORRECTED BINOCULAR NEAR RESULTS

• To focus at 38 cm requires 2.63D
• This sample of patients is seeing at that distance with 1.1D of planned myopia
• Suggests there is ~1.5D extended ROF
• Also unexplained by Sturm’s interval with only 0.4D residual toricity
WHAT DOES THIS MEAN?

• 95% Quite or extremely happy
• 50% are spectacle free 100% time
• 50% spectacle use 38% of the day
  – Near tasks
  – Prescription Sunglasses
WHAT DOES THIS MEAN?

• With a lens that provides additional ROF, a smaller amount of animesetropia is required to achieve good functional intermediate vision

• Patients without a Hx of monovision are candidates

• Little interruption in binocular acuity and stereoposis
WHAT DOES THIS MEAN?

• Low risk of contrast loss
• Little neuroadaption
• Reduced need for spectacles