Visual performance of a new segmented asymmetric multifocal intraocular lens

Sunil Shah FRCS\textsuperscript{1,2}, Emma Berrow PhD\textsuperscript{1}, James Wolffsohn PhD\textsuperscript{1}, Shehzad Naroo PhD\textsuperscript{1}

\textsuperscript{1}Aston University, Birmingham, UK
\textsuperscript{2}Midland Eye, Solihull, UK

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SS is a consultant to Lenstec
Segmented, Asymmetric Multifocal IOL (Lenstec)

Purpose: To evaluate the visual performance of patients implanted with a new bi-aspheric, +3D non-blended segment, multifocal intraocular lens (IOL) available in quarter diopter powers.

<table>
<thead>
<tr>
<th>Lens Feature</th>
<th>Specifications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Optic Size</td>
<td>5.75 mm</td>
</tr>
<tr>
<td>Optic Type</td>
<td>Equiconvex</td>
</tr>
<tr>
<td>Haptic Type</td>
<td>Closed loop/modified plate</td>
</tr>
<tr>
<td>Add power</td>
<td>+3.00D at the IOL plane</td>
</tr>
<tr>
<td>Length</td>
<td>11.00 mm</td>
</tr>
<tr>
<td>Angulation</td>
<td>0 Degrees</td>
</tr>
<tr>
<td>Construction</td>
<td>1 Piece</td>
</tr>
<tr>
<td>Optic Material</td>
<td>Hydrophilic acrylic (26% water content)</td>
</tr>
<tr>
<td>Haptic Material</td>
<td>Hydrophilic acrylic (same as optic)</td>
</tr>
<tr>
<td>A Constant*</td>
<td>118.43 mm**</td>
</tr>
<tr>
<td>A/C Depth*</td>
<td>5.10 mm</td>
</tr>
</tbody>
</table>
Methods

- Patients (average age 62.2 ± 11.1 years) monocularly (n=7) or binocularly (n=10) implanted with the SBL-3 MIOL.
- Follow-up 3 months
  - UCVA
  - Refraction
  - BCDVA
  - BDCIVA
  - BDCNVA
  - Contrast sensitivity (Pelli-Robson chart)
  - Defocus curves (+1.50 to -5.00D, 0.5D steps, letters randomization)
  - Halometry (Aston App - 45° meridians)
Results

- Residual Rx 0.01± 0.47D
  - 67% ±0.25D
  - 81% ±0.50D

- UCDVA 0.07 ± 0.14logMAR

- Mean UCNVA = J3

- Contrast sensitivity good
  - 1.66 ±0.13 log units
Results: defocus curve

![Diagram showing the relationship between defocus and acuity (logMAR)]
Results

Halometry:
<1° debilitating light scatter
This new aspheric segmented IOL provides a good visual outcome at distance and near with minimal dysphotopsia.