Jia et al. Supplementary analysis including only patients aged 12 years of age or less when visual acuity normalized (n = 460).

Supplementary Figure 1. Spherical refractive error (x-axis) and cylindrical refractive error (y-axis) measured under cycloplegia at the first visit to Zhongshan Ophthalmic Center. FE, fellow eye; AE, amblyopic eye; Iso, isoametropic (see main text for further details). D = Diopter.

Supplementary Table 1. Summary demographics for the anisometropic and isoametropic amblyopia groups

<table>
<thead>
<tr>
<th></th>
<th>Anisometropic n = 254</th>
<th>Isoametropic n = 206</th>
<th>Total n = 460</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>145 (57.1)</td>
<td>114 (55.3)</td>
<td>259 (56.3)</td>
</tr>
<tr>
<td>Age at first visit</td>
<td>6.1 (5.0, 7.3)</td>
<td>5.5 (4.5, 6.9)</td>
<td>6.0 (4.9, 7.1)</td>
</tr>
<tr>
<td>Age at normal VA</td>
<td>7.5 (6.5, 8.9)</td>
<td>7.7 (6.6, 8.7)</td>
<td>7.6 (6.5, 8.9)</td>
</tr>
<tr>
<td>Hyperopia</td>
<td>223 (87.8)</td>
<td>195 (94.7)</td>
<td>418 (90.9)</td>
</tr>
<tr>
<td>With astigmatism &lt; 2D</td>
<td>133 (52.4)</td>
<td>73 (35.4)</td>
<td>206 (44.8)</td>
</tr>
<tr>
<td>With astigmatism ≥ 2D</td>
<td>90 (35.4)</td>
<td>122 (59.2)</td>
<td>212 (46.1)</td>
</tr>
<tr>
<td>Myopia</td>
<td>31 (12.2)</td>
<td>11 (5.3)</td>
<td>42 (9.1)</td>
</tr>
<tr>
<td>With astigmatism &lt; 2D</td>
<td>22 (8.7)</td>
<td>3 (1.5)</td>
<td>25 (5.4)</td>
</tr>
<tr>
<td>With astigmatism ≥ 2D</td>
<td>9 (3.5)</td>
<td>8 (3.9)</td>
<td>17 (3.7)</td>
</tr>
</tbody>
</table>

Data are presented as median (q1, q3) for age (years), otherwise as n (%). First visit refers to the patient’s first appointment at Zhongshan Ophthalmic Center.
Supplementary Table 2. Contrast sensitivity and visual acuity for each eye when visual acuity had normalised following amblyopia treatment. Data are split by amblyopia group; anisometropia (FE and AE) and isometropia (Iso-FE and Iso-AE) as well as type of contrast sensitivity measurement: CVS-1000E (top) and qCSF (bottom).

<table>
<thead>
<tr>
<th>CSV group</th>
<th>FE</th>
<th>AE</th>
<th>P-value</th>
<th>Iso-FE</th>
<th>Iso-AE</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n = 102</td>
<td>n = 102</td>
<td></td>
<td>n = 86</td>
<td>n = 86</td>
<td></td>
</tr>
<tr>
<td>CS-3 cpd</td>
<td>1.49 (1.34, 1.63)</td>
<td>1.49 (1.34, 1.63)</td>
<td>0.017†</td>
<td>1.63 (1.49, 1.63)</td>
<td>1.49 (1.45, 1.63)</td>
<td>0.383</td>
</tr>
<tr>
<td>CS-6 cpd</td>
<td>1.84 (1.70, 1.84)</td>
<td>1.70 (1.70, 1.84)</td>
<td>0.008*</td>
<td>1.84 (1.70, 1.84)</td>
<td>1.70 (1.70, 1.84)</td>
<td>0.152</td>
</tr>
<tr>
<td>CS-12 cpd</td>
<td>1.54 (1.40, 1.54)</td>
<td>1.40 (1.25, 1.54)</td>
<td>0.001*</td>
<td>1.40 (1.40, 1.54)</td>
<td>1.40 (1.40, 1.54)</td>
<td>0.086</td>
</tr>
<tr>
<td>CS-18 cpd</td>
<td>1.10 (0.96, 1.14)</td>
<td>0.96 (0.81, 1.10)</td>
<td>&lt;0.001*</td>
<td>0.96 (0.81, 1.10)</td>
<td>0.96 (0.81, 1.10)</td>
<td>0.081</td>
</tr>
<tr>
<td>Cutoff-SF</td>
<td>1.28 (1.27, 1.29)</td>
<td>1.27 (1.26, 1.28)</td>
<td>0.014*</td>
<td>1.27 (1.26, 1.29)</td>
<td>1.27 (1.26, 1.29)</td>
<td>0.395</td>
</tr>
<tr>
<td>AULCSF</td>
<td>1.24 (1.18, 1.30)</td>
<td>1.20 (1.14, 1.28)</td>
<td>&lt;0.001*</td>
<td>1.25 (1.17, 1.33)</td>
<td>1.21 (1.13, 1.29)</td>
<td>0.012*</td>
</tr>
<tr>
<td>LogMAR BCVA</td>
<td>0.00 (0.00, 0.00)</td>
<td>0.02 (0.00, 0.04)</td>
<td>&lt;0.001*</td>
<td>0.00 (0.00, 0.02)</td>
<td>0.00 (0.00, 0.04)</td>
<td>0.013*</td>
</tr>
<tr>
<td>qCSF group</td>
<td>n = 152</td>
<td>n = 152</td>
<td></td>
<td>n = 120</td>
<td>n = 120</td>
<td></td>
</tr>
<tr>
<td>CS-3 cpd</td>
<td>1.73 (1.59, 1.83)</td>
<td>1.72 (1.60, 1.83)</td>
<td>0.689</td>
<td>1.78 (1.67, 1.87)</td>
<td>1.77 (1.66, 1.86)</td>
<td>0.302</td>
</tr>
<tr>
<td>CS-6 cpd</td>
<td>1.45 (1.25, 1.64)</td>
<td>1.42 (1.21, 1.60)</td>
<td>0.258</td>
<td>1.53 (1.36, 1.65)</td>
<td>1.51 (1.30, 1.66)</td>
<td>0.051</td>
</tr>
<tr>
<td>CS-12 cpd</td>
<td>1.02 (0.77, 1.26)</td>
<td>0.93 (0.66, 1.14)</td>
<td>0.011*</td>
<td>1.06 (0.85, 1.25)</td>
<td>0.96 (0.76, 1.19)</td>
<td>0.005*</td>
</tr>
<tr>
<td>CS-18 cpd</td>
<td>0.38 (0.10, 0.66)</td>
<td>0.23 (0.02, 0.49)</td>
<td>&lt;0.001*</td>
<td>0.31 (0.12, 0.56)</td>
<td>0.26 (0.04, 0.48)</td>
<td>0.001*</td>
</tr>
<tr>
<td>Cutoff-SF</td>
<td>1.31 (1.21, 1.39)</td>
<td>1.26 (1.17, 1.34)</td>
<td>&lt;0.001*</td>
<td>1.29 (1.23, 1.36)</td>
<td>1.27 (1.19, 1.33)</td>
<td>&lt;0.001*</td>
</tr>
<tr>
<td>AULCSF</td>
<td>1.50 (1.34, 1.69)</td>
<td>1.45 (1.29, 1.64)</td>
<td>0.034*</td>
<td>1.57 (1.44, 1.67)</td>
<td>1.52 (1.39, 1.67)</td>
<td>0.016*</td>
</tr>
<tr>
<td>LogMAR BCVA</td>
<td>0.00 (-0.06, 0.00)</td>
<td>0.00 (0.00, 0.02)</td>
<td>&lt;0.001*</td>
<td>0.00 (0.00, 0.00)</td>
<td>0.00 (0.00, 0.02)</td>
<td>&lt;0.001*</td>
</tr>
</tbody>
</table>

Data are presented as median (q1, q3). Comparisons between the FE versus AE and Iso-FE versus Iso-AE were made using the Wilcoxon signed-rank test. Abbreviations: FE = fellow eye anisometropic amblyopia; AE = amblyopic eye anisometropic amblyopia; Iso-FE = better eye isoametropic amblyopia; Iso-AE = poorer eye isoametropic amblyopia; BCVA = best corrected visual acuity; CS = contrast sensitivity, cpd = cycles per degree, SF = spatial frequency, AULCSF = area under the log contrast sensitivity function. * Statistically significant difference. † The Wilcoxon signed-rank test indicated a statistically significant difference in the distribution of signed ranks despite the median and interquartile ranges being the same for each eye.

Supplementary Table 3. Stereoacuity when visual acuity had normalized.
Data are presented as n (%).

<table>
<thead>
<tr>
<th>Random Dot</th>
<th>Total</th>
<th>Anisometric</th>
<th>Isoametropic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age-normal</td>
<td>n = 440</td>
<td>n = 245</td>
<td>n = 195</td>
</tr>
<tr>
<td>Reduced for age</td>
<td>212 (48.2)</td>
<td>113 (46.1)</td>
<td>99 (50.8)</td>
</tr>
<tr>
<td>Unmeasurable</td>
<td>195 (44.3)</td>
<td>114 (46.5)</td>
<td>81 (41.5)</td>
</tr>
<tr>
<td>Randot Test</td>
<td>n = 447</td>
<td>n = 246</td>
<td>n = 201</td>
</tr>
</tbody>
</table>
The distribution of stereoacuity scores did not differ significantly between the anisometropic and isoametropic amblyopia groups for either test (near stereoacuity Random Dot, $Z = -0.830$, $p = 0.407$; distance stereoacuity Randot Test, $Z = -0.465$, $p = 0.642$).

Supplementary Table 4. Stereoacuity at the time of first visit and when visual acuity had normalized for a subset of patients with stereoacuity measurements at both time points.

<table>
<thead>
<tr>
<th></th>
<th>Near stereoacuity (Random Dot Test)</th>
<th></th>
<th>Distance Stereopsis (Randot Test)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total $n = 143$</td>
<td>Anisometropic $n = 90$</td>
<td>Isoametropic $n = 53$</td>
</tr>
<tr>
<td></td>
<td>1st Visit Normal VA</td>
<td>1st Visit Normal VA</td>
<td>1st Visit Normal VA</td>
</tr>
<tr>
<td>Age-normal</td>
<td>47 (32.9)</td>
<td>31 (34.4)</td>
<td>16 (30.2)</td>
</tr>
<tr>
<td>Reduced for age</td>
<td>79 (55.2)</td>
<td>48 (53.3)</td>
<td>31 (58.5)</td>
</tr>
<tr>
<td>Unmeasurable</td>
<td>17 (11.9)</td>
<td>11 (12.2)</td>
<td>6 (11.3)</td>
</tr>
<tr>
<td></td>
<td>Distance Stereoacuity (Randot Test)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total $n = 154$</td>
<td>Anisometropic $n = 100$</td>
<td>Isoametropic $n = 54$</td>
</tr>
<tr>
<td>Age-normal</td>
<td>24 (15.6)</td>
<td>14 (14.0)</td>
<td>10 (18.5)</td>
</tr>
<tr>
<td>Reduced for age</td>
<td>39 (25.3)</td>
<td>24 (24.0)</td>
<td>15 (27.8)</td>
</tr>
<tr>
<td>Unmeasurable</td>
<td>91 (59.1)</td>
<td>62 (62.0)</td>
<td>29 (53.7)</td>
</tr>
</tbody>
</table>

Data are presented as n (%).

Near stereoacuity measured using the Random Dot Test improved significantly from first visit to normalization of visual acuity (all participants $Z = -5.821$, $p < 0.001$; anisometropia only $Z = -4.555$, $p < 0.001$, isoametropia only $Z = -3.642$, $p < 0.001$).

Distance stereopsis measured using the Randot Test also improved significantly from first visit to when visual acuity had normalized (all participants $Z = -5.551$, $p < 0.001$; anisometropia only $Z = -4.778$, $p < 0.001$, isoametropia only $Z = -2.852$, $p = 0.004$).