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Children adapt well to Diffusion Optics Technology™ (DOT) spectacle lenses

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Purpose: Diffusion Optics Technology™ (DOT) spectacle lenses are designed to slow myopia progression by modulating retinal contrast and have demonstrated excellent safety and efficacy in long-term pediatric clinical studies in North America. Adaptation in children wearing DOT spectacle lenses was compared to standard single vision control (SVC) spectacle lenses within a randomized clinical trial in China at five clinical sites involving Chinese children.
Method: One hundred and ninety children (91 Male; 99 Female) with mean age 9.63 ± 1.78 years (range 6 to 13) and manifest spherical equivalent refractive error of -2.21 ± 0.92 D (range -0.75 to -5.00) were recruited at five sites and were randomly allocated to wear DOT lenses or SVC in a 2:1 ratio. Feedback was obtained within 2-3 days post dispensing which assessed if children had adapted to the lenses based on five questions; clarity of vision at distance and near, comfort, like the glasses and glasses fit well.
Results: Mean binocular logMAR VAs with MRSE for all subjects were -0.01 ± 0.04. After 2-3 days of wearing the allocated spectacle lenses, overall 97% of children were classified as adapted to DOT lenses, the same as 97% with SVC. There was no difference in responses for DOT compared to SVC for clarity of vision at distance (DOT 98%; SVC 100%) and near (DOT 98%; SVC 99%), comfort (DOT 97%; SVC 100%), like the glasses (DOT 96%; SVC 90%) and glasses fit well (DOT 97%; SVC 97%). None were discontinued in the trial because of an adaptation problem.
Conclusions: Adaptation in Chinese children wearing DOT lenses for myopia control was similar to SV control.
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