Stereopsis results at 4.5 years of age in the infant aphakia treatment study.

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Original article
Stereopsis Results at 4.5 Years of Age in the Infant Aphakia Treatment Study

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Purpose
To determine whether stereopsis of infants treated for monocular cataracts varies with the type of optical correction used.

Design
Randomized prospective clinical trial.

Methods
The Infant Aphakia Treatment Study randomized 114 patients with unilateral cataracts at age 1–7 months to either primary intraocular lens (IOL) or contact lens correction. At 4.5 years of age a masked examiner assessed stereopsis on these patients using 3 different tests: (1) Frisby; (2) Randot Preschool; and (3) Titmus Fly.
Results

Twenty-eight patients (25%) had a positive response to at least 1 of the stereopsis tests. There was no statistically significant difference in stereopsis between the 2 treatment groups: Frisby (contact lens, 6 [11%]; IOL, 7 [13%]; \( P = .99 \)), Randot (contact lens, 3 [6%]; IOL, 1 [2%]; \( P = .62 \)), or Titmus (contact lens, 8 [15%]; IOL, 13 [23%]; \( P = .34 \)). The median age at surgery for patients with stereopsis was younger than for those without stereopsis (1.2 vs 2.4 months; \( P = .002 \)). The median visual acuity for patients with stereopsis was better than for those without stereopsis (20/40 vs 20/252; \( P = .0003 \)).

Conclusion

The type of optical correction did not influence stereopsis outcomes. However, 2 other factors did: age at surgery and visual acuity in the treated eye at age 4.5 years. Early surgery for unilateral congenital cataract and the presence of visual acuity better than or equal to 20/40 appear to be more important than the type of initial optical correction used for the development of stereopsis.
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