The Natural History of Small-Angle Intermittent Exotropia

One of the more difficult decisions we face as pediatric ophthalmologists is how to treat young children with intermittent exotropia. When the deviation is intermittent and manifests infrequently, caregivers often expect, or at least hope for, improvement or resolution. This is a particular problem in patients with small angles of deviation, because the cosmetic defect is minimal and unnoticed by many observers. I tend to base surgical decisions on the same factors that we do for children with larger angle deviations. Parameters to follow include frequency and recovery of the deviation along with reduced stereoacuity and increased symptoms. It generally is more difficult for the caregivers to accept the need for surgery in patients with smaller angles of exotropia.

In this issue, Lee et al. analyzed the change of the exodeviation in patients with intermittent exotropia whose angle of deviation was initially 10 to 18 prism diopters (PD). They report the initial clinical characteristics associated with two practical endpoints: undergoing surgery and reaching 20 PD or greater. This is one of the first studies that provides specific information about the clinical course in a small-angle subgroup of patients with intermittent exotropia. The authors found that the mean distance deviation increased during the follow-up period and the angle of distance deviation reached 20 PD or greater in approximately half of the patients at 2 years after diagnosis. Surgical treatment was also inevitable in nearly half of the patients at the 2-year follow-up. Significantly, the number of patients who showed an increase of exodeviation was four to five times that of those who showed a decrease. The authors found that the mean initial stereoacuity was worse in patients who showed final exodeviations of 20 PD or greater, but could not find the cutoff value of initial stereoacuity that could help predict the probability of reaching a final exodeviation of 20 PD or greater with statistical significance.

Two things to note in this study are that the mean age at presentation was 54.5 ± 28.5 months and that the basic type of exotropia outnumbered the divergence excess type by 76 to 2. It has been my experience that younger patients are more likely to present with the divergence type, but I admit I don't often try to uncover a basic intermittent exotropia using monocular occlusion during my evaluation in the clinic. The data presented in this study delineate the probable result of treatment or observation in young children with small-angle intermittent exotropia. This information can ultimately result in better treatment decisions and improved outcomes for these patients.

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