Optimal Surgical Results in Infantile Exotropia

Infantile exotropia is considered to be less common than infantile esotropia, particularly in otherwise healthy children. Children with infantile exotropia have an increased risk of associated neurologic impairment and developmental delay. Many children with significant developmental delay will present with a variable, intermittent deviation that is difficult to measure and are often observed until they exhibit a constant angle of strabismus before surgery is considered. In their interventional case series, Lueder and Galli retrospectively evaluated their patients who had undergone surgery for either constant or intermittent exotropia with stable measurements before 1 year of age. In their group of 26 patients, only 10 were diagnosed as having a specific cause of developmental delay. Significantly, all of the patients who were developmentally normal at the time of initial evaluation remained so throughout the follow-up period ranging from 1 to 16 years. One can conclude that initial neurologic evaluation is not necessary prior to surgery in otherwise healthy children.

Consistent with the experience of many strabismus surgeons, the results following initial surgery for infantile exotropia are not as good as for infantile esotropia. All patients had at least bilateral lateral rectus muscle recessions in their initial surgery. Successful outcomes (defined as a horizontal deviation of less than 10 prism diopters) occurred in 10 (38%) of 26 patients after one surgery. Sixteen patients underwent additional surgery (10 for recurrent exotropia, 6 for consecutive esotropia). Thirteen (50%) of these patients had successful outcomes after the second surgery. There was no difference in surgical results regardless of whether developmental delay was present.

In my experience, the most important factor in achieving satisfactory surgical results in infantile exotropia is the preoperative measurement of the deviation. It is best to have multiple consistent measurements of the angle of deviation prior to scheduling surgery. This may be more difficult in children with muscle tone abnormalities as found in conditions such as periventricular leukomalacia. As the authors suggest, families of children with infantile exotropia should be counseled regarding the risk of requiring more than one surgery. With proper management, long-term success can be achieved in most patients with or without a diagnosis of developmental delay. As in cases of infantile esotropia, early successful alignment of the eyes may result in improved binocularity and subsequent development in children with infantile exotropia.

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