Is Ophthalmic Follow-up of Premature Infants Necessary?

To the Editors:

There is currently no definitive guidance on the long-term ophthalmic follow-up of neonates who fulfill the criteria for retinopathy of prematurity (ROP) screening (less than 32 weeks of gestational age and/or 1,500 grams birth weight) but are not found to have ROP. Previous studies have reported rates of ophthalmic disorders as high as 17.6% to 51.5% in this cohort, which has led to the recommendation of routine follow-up of these children. To investigate national practices, we designed an online survey consisting of four questions:

1. Do you routinely observe infants born preterm who were screened for but NOT found to have ROP in your clinic?
2. When do you first see them, following discharge from the neonatal intensive care unit?
3. Which clinic are the majority of their follow-ups scheduled within?
4. What is the age at which you discharge them from your care, if no ophthalmic findings are discovered?

The survey was sent to all members of the United Kingdom pediatric listserv, which consists of pediatric ophthalmologists and senior orthoptists (169 members); 58 responses were received (34.3%). Of the 58 respondents, 21 (36.2%) routinely observed this cohort in clinic and the remaining 37 (63.8%) did not. Of the 21 who followed up this cohort, most (11, 52.4%) first see them at or before 6 months, 6 (28.6%) at 1 year, and 4 (19.0%) after 1 year. These patients are seen by a variety of eye professionals: 8 respondents stated they are seen by an ophthalmologist, 7 by orthoptists and optometrists, 4 by orthoptists only, and 2 by a combination of ophthalmologists and orthoptists/optometrists. The age at discharge is also highly variable: 3 respondents discharge patients at or before 1 year, 5 at 2 years, 6 at 3 years, 4 at 4 years or older, and 3 discharge on the basis of satisfactory visual acuity or uniconcular activity when it is finally obtained.

There is a high degree of variability in the ophthalmic follow-up of premature children in the United Kingdom. Further research is needed to establish the true incidence of ocular pathology in this cohort for the development of national guidelines.

REFERENCES


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Amblyopia in Children Referred With Congenital Dacryostenosis From the Arabian Peninsula

To the Editors:

Recent studies have suggested an association between congenital dacryostenosis and anisometropic amblyopia in Western populations, often quoting a range of 5% to 10% (with an estimated prevalence of amblyopia in the general population of 3% to 5%). To investigate this in the Arab population, we reviewed the records of children with congenital dacryostenosis referred to a regional eye hospital (King Khaled Eye Specialist Hospital) between January 2001 and January 2010 after institutional board approval.

We only analyzed records of children evaluated by pediatric ophthalmologists because otherwise vi-
ual acuities were often not documented for young children. Of 467 identified children (mean age: 25 months; range: 1 to 108 months), 106 were seen by a pediatric ophthalmologist (and had a documented cycloplegic refraction). Forty-seven of these 106 children had amblyopia (44.3%), which was refractive in 24 (22.6%) and non-refractive in 23 (21.7%). In the 24 children with refractive amblyopia, 20 (83.3%) had unilateral and 4 (16.6%) had bilateral congenital dacryostenosis. Most children with unilateral congenital dacryostenosis had ipsilateral anisometropic amblyopia related to a difference in hyperopia greater than +1.50 diopters (16 of 20); the remainder had contralateral anisometropic amblyopia related to a difference in hyperopia greater than +1.50 diopters (2 of 20) or bilateral amblyopia related to uncorrected high myopia (2 of 20). The 23 children with non-refractive amblyopia had cataract, glaucoma, retinal dystrophy, chorioretinal coloboma, albinism, incomitant strabismus, or severe proxis. Our sample is biased toward children who were also evaluated by pediatric ophthalmologists; however, we conservatively assume that none of the children without pediatric ophthalmologist evaluation had amblyopia, the risk in this cohort remains high (47 of 467 = 10.1%).

In contrast to studies from Western populations, which document anisometropia as the major amblyogenic factor in congenital dacryostenosis, approximately half (23 of 47, 48.9%) of our cohort had amblyopia related to non-refractive ocular disease. Pediatric ocular genetic disease is more common on the Arabian Peninsula. Because its actual prevalence is not known, we cannot comment whether ocular genetic disease is more common in children with congenital dacryostenosis in this region. Similarly, the prevalence of amblyopia in the general population in this region is not available for comparison.

Our study is limited by the exclusion of children not seen by pediatric ophthalmologists, which was the majority of patients. However, we conservatively assumed all such children not to have amblyopia and thus our estimated prevalence statistic of 10% is likely an underestimation. Another limitation is that the diagnosis of amblyopia was made by different pediatric ophthalmologists without a standardized protocol. However, our findings do suggest that at least 10% of children from the region referred with congenital dacryostenosis have amblyopia and that non-refractive causes are common. All children with congenital dacryostenosis need to have cycloplegic refraction and amblyopia assessment/management, and this is particularly true for affected children from the Arabian Peninsula.

REFERENCES


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