Ocular defects in children with cerebral palsy

Dear Editor,

I congratulate Katoch *et al.*¹ for their wonderful and informative article on "Ocular defects in cerebral palsy". I agree that a lot of problems of these unfortunate kids go unnoticed due to various reasons. However, there are few points I would like to share and add, about our experience as per the study we did on children with periventricular leucomalacia (PVL) at Aravind Eye Hospital (unpublished data).

Seventy-two to 90% of all children with spastic diplegia have PVL.² Therefore, it is imperative that children with cerebral palsy should be at least once subjected to neurological investigation, if there is any suspicious visual loss. Though the neuroimaging may not help much in the treatment, it would nevertheless help in the diagnosis and in establishing the nature of visual loss. It would also help in earlier rehabilitation of the child. I believe the authors should have got neuroimaging done in the children where they suspected any presence of PVL.¹ Katoch *et al.*¹ have almost 68% of children with significant ocular morbidity.

Another important factor is the birth history of the child which I feel was missing from the article. I completely agree with the specific nature of the article pertaining to the ocular defects, however, prematurity does have its own problems, starting from refractive errors to the ocular motility defects.

O'Keefe *et al.*³ found that 44.1% had strabismus in their study on premature babies. Thirty-one (81.6%) of children in our study (unpublished data) had strabismus; the predominant group was of esotropia 22 (57.9%).

The different refractive errors were probably because of the absence of any age-related subgroups. We found (unpublished data) that in children with PVL, the myopia starts by the age of four years and more. Therefore, as the age progresses the refractive errors change and having a range of eight months to 21 years (in this particular study) does not convey much, since there would be a lot of changes in such a higher range of age group taken together.¹

Visual acuity is also an age-dependent procedure for these children. These children have cognitive functional problems and delayed visual milestones or maturation and so it completely depends on the age. I believe the authors should have made age groups and then reviewed that data accordingly.

I would also like to present the data (unpublished data) of our study (done at Aravind Eye Hospital,, Madurai, presented at AIOS, 2007) for the sake of comparison. Mean age of children with PVL (n=38) at presentation was 22.24 ± 27.4 months (range 3 to 96 months, median 12 months); 25 (65.8%) were male and 13 (34.2%) were female. Thirty-two (84.2%) mothers had some associated obstetric risk factors. Mean age of gestation was 31.56 \pm 2.41 months. Mean birth weight was 2.17 v 1.4 kg. Twenty-one (55.3%) children had some associated ophthalmological or systemic anomaly. Thirty-seven (97.4%) had some form of developmental delay, either motor or sensory. Thirty-one (81.6%) children had associated strabismus. Fourteen (36.8%) children had nystagmus. The average (n=34) cup-disc ratio was 0.46 ± 0.18 in the right eye and 0.52 ± 0.16 in the left eye.

Jitendra Jethani, MS

Pediatric Ophthalmology and Strabismus, Dr. Thakorbhai V Patel Eye Institute, Salatwada, Baroda, India. E-mail: xethani@rediffmail.com

References

- Katoch S Devi A Kulkarni P. Ocular defects in cerebral palsy. *Indian J Ophthalmol* 2007;55:154-6.
- Jacobson LK, Dutton GN. Periventricular leucomalacia: An important cause of visual and ocular motility dysfunction in children. Surv Ophthal 2000;45:1-13.
- O'Keefe M, Kafil-Hussain N, Flitcroft I, Lanigan B. Ocular significance of intraventricular hemorrhage in premature infants. Br J Ophthalmol 2001;85:357-9.