

Eureka moments in pediatric cataract screening

Dear Editor:

Birch *et al.*^[1,2] have established the role of early diagnosis and intervention in minimizing deprivation amblyopia in unilateral or bilateral pediatric cataract. This has led ophthalmologists to refine their examination methods for a more reliable screening of cataract. Pediatric ocular examination has been described with intranasal dexmedetomidine,^[3] oral chloral hydrate,^[4] etc. A parent's lap is often described ideal for eye-testing purposes by ophthalmologists.^[5] We wish to share a few tips for examination of preverbal children with pediatric cataract that have proved to be useful in our clinical experience as pediatric ophthalmologists.

1. A child in parent's shoulder hold

The examiner instructs the parent to gently lift the child and rest them onto their shoulder, while supporting the back and neck of child with both their hands. The parent should then turn their back toward the examiner, ensuring the child faces the doctor [Fig. 1a]. This position increases body contact of the child with parent. This tends to relax the child and improves their cooperation. Red reflex can be easily tested in this posture

2. Test of cortex liquefaction

A total intumescent cataract can be tested for liquefied cortex and nucleus sinking in dependent position, as in Morgagnian cataracts. Child's eye is tested in sitting, lateral, and supine positions to look for shift in the position of nucleus [Fig. 1b and c]. Surgeons should use a heavy viscoelastic substance for achieving a circular anterior capsulorhexis in such cases

3. Examination over glasses

Children with postoperative aphakia should be periodically tested for visual axis opacity (VAO). A good method for this can be checking the red reflex while the child has worn glasses [Fig. 1d]. Red reflex is dull in cases of high refractive error. Refractive correction and magnification of reflex by aphakic glasses can be exploited for detecting VAO early without examination under anesthesia.

Unlike adult patients, a detailed ophthalmic examination in preverbal children is often very challenging. It is quite

likely possible that few ocular details like cataract (if not too dense) may be missed initially if child does not cooperate well for examination. These simple examination tips provided by authors may prove to be of great benefits to pediatric ophthalmologists, when screening preverbal children for cataract or VAO and in preoperative planning.

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Conflicts of interest

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Figure 1: Examination technique in pediatric cataract screening (a) with positioning child in shoulder hold of the parent, where he/she is well supported by parent's hands, while examiner performs ophthalmoscopy at same eye level as child's eye. (b) A case of total intumescent cataract with nucleus sinking in dependent position while child is in left lateral position and while child is in (c) sitting position. (d) Examiner performing ophthalmoscopy over glasses in a child with aphakia while testing for red reflex

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