Comment on: Long-term results after primary intraocular lens implantation in children operated less than 2 years of age for congenital cataract

Dear Editor,

We have read with great interest the article by Sukhija et al., published in the December 2014 edition.[1] We appreciate the sincere efforts of the authors. We very well understand the fact being a retrospective study, there are few limitations regarding data recording. However, there are a few short comings in the article that we would like to bring to notice.

• In Table 1: Profile of patients with long-term follow-up, 4th female patient having preoperative axial length (AL) in right and left eye 21.9 mm and 22 mm, decreased to 20.04 mm and 19.96 mm respectively at last follow-up. We are unable to understand the cause of decrease AL on follow-up

• Method of AL measurement was not mentioned in detail? Whether AL was measured with contact technique or with immersion technique? The AL measured by contact A-scan ultrasound can introduce the error because of the thinner and softer eye wall in children that is prone to deformation under pressure.[2] Previous study by Trivedi and Wilson had concluded that contact A-scan measurements yielded shorter AL than immersion A-scan measurements.[3] During intraocular lens (IOL) power calculation, if AL measured by contact technique is used, it will result in the use of an average 1D stronger IOL power than is actually required. This can lead to induced myopia in the postoperative refraction.[4] Out of 26 eyes, 5 eyes showed postoperative retinoscopy in negative (myopia), was it due to an error of measurement? They had not mentioned in detail why patients had first postoperative retinoscopy in minus

• Which formula was used for IOL power calculation? Is the same IOL formula for all AL range (17–22.55 mm).

We appreciate the

[1] Trivedi R, Wilson R. Ultrasound A-scan measurement shortly after pediatric cataract surgery: a comparison of contact and immersion technique. Jpn J Ophthalmol. 2003;47:438–43.

[2] Trivedi R, Wilson R. Comparison of contact and immersion ultrasound measurements shortly after pediatric cataract surgery. J Pediatr Ophthalmol Strabismus. 2003;40:284–9.

[3] Trivedi R, Wilson R. Comparison of contact and immersion ultrasound measurements shortly after pediatric cataract surgery. J Pediatr Ophthalmol Strabismus. 2003;40:284–9.

[4] During intraocular lens (IOL) power calculation, if AL measured by contact technique is used, it will result in the use of an average 1D stronger IOL power than is actually required.
either myopic or emmetropic. This resulted in a larger myopic shift than expected in these eyes

- They had 5 patients with final refraction of myopia (−3 to −11D). They had not discussed in details regarding various factors responsible for such high myopic shift

- In Table 1, 3rd male patient with age at surgery 22 months, had postoperative retinoscopy 0. At last follow-up, his refraction was also 0. Though there was an increase in AL by 0.5 mm there was no change in postoperative refraction after 8 years follow-up

- Posterior capsule opacification (PCO) seen in two eyes. Which IOL was implanted in these eyes? Hydrophobic acrylic or single piece square edge polymethyl methacrylate. Previous studies had reported less PCO formation with hydrophobic acrylic IOL than with PMMA IOL

- One patient had IOP 32 mmHg. Is IOP corrected for corneal thickness? As tonometry results may be influenced by the increased corneal thickness seen in aphakic and pseudophakic children so correction factor should be considered.

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2. Trivedi RH, Wilson ME. Axial length measurements by contact and immersion techniques in pediatric eyes with cataract. Ophthalmology 2011;118:498-502.

3. Lam DS, Fan DS, Lam RF, Rao SK, Chong KS, Lau JT, et al. The effect of parental history of myopia on children’s eye size and growth: Results of a longitudinal study. Invest Ophthalmol Vis Sci 2008;49:873-6.

4. Panahi-Bazaz MR, Zamani M, Abazar B. Hydrophilic Acrylic versus PMMA Intraocular Lens Implantation in Pediatric Cataract Surgery. J Ophthalmic Vis Res 2009;4:201-7.