

Commentary: Retinopathy of prematurity screening made simple – Smartphone-based fundus imaging

Retinopathy of prematurity (ROP) continues to remain an important cause of childhood blindness all over the world with a difference in the scenario in the developed and developing countries.^[1,2] Countries such as India and China together account for more than half of the total number of premature infants born, with India alone accounting for 3.5 million preterm infants annually.^[3] The incidence of ROP is on the rise, not just in urban but even rural areas. Better facilities in the newborn care have led to reduction in the neonatal mortality rate and increase in the number of at-risk babies. However, the number of ophthalmic personnel required to screen all the at-risk babies is insufficient. In India, programs like KIDROP^[4] have helped in reducing the number of ROP-related blindness using wide-field imaging, telemedicine, nonphysician graders, and smart phone reporting.

It may not be possible to use an expensive wide-field imaging-based system for all. This is where the role of smartphone-based fundus imaging plays an important role. Lekha *et al.*^[5] in their study have demonstrated that MII RetCam-assisted smartphone-based fundus imaging is a potential alternate imaging tool enabling objective documentation and monitoring of ROP in low-resource settings. Smartphone-based fundus imaging can be used by the pediatricians themselves and an ophthalmologist trained in managing ROP can review the images at a remote location and help achieve near-optimal screening. The other important aspect of the smartphone-based fundus imaging is the relative use of handling and a smaller learning curve.

The screening examination can be stressful for both babies and parents; a trust can be developed between the doctor and the parents by involving the parents in the care and photographic evidence can go a long way in achieving it. Smartphone-based fundus imaging could be the way forward not just in screening ROP but other retinal conditions as well.

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