

Commentary: Ocular biometry in a developing country's perspective

González-Godínez *S et al.*,^[1] a good comparison between the partial coherence interferometry-based optical biometer IOL Master 500 and swept-source optical coherence tomography (SS-OCT) based optical biometer IOL Master 700 has been made. It has also given importance to the immersion A-scan, the gold standard in the case of mature and intumescent cataracts. In this study, they have written that lens thickness variation in little amount can affect the fourth generation Olsen formula. But to know whether the immersion A scan or SS-OCT optical biometer measured LT or AL is best in achieving a vision of 20/20, it would have been better to give the postoperative result to decide which method to choose in dense cataracts.

The swept-source technology provides a clear advantage over the partial coherent interferometry adopted in IOL Master 500 (Carl Zeiss Meditec AG, Jena, Germany), including the ability to measure the axial length along six different axes and extremely rapid data acquisition. It also can detect identification of the lens tilt or configuration of the fovea, including correct fixation during the measurements.^[2] Hence, it is a better tool for dense nuclear cataracts and posterior subcapsular cataracts. Suppose an optical biometer is always preferable in a center. In that case, early measurement of ocular biometry is not a bad

option, especially when there is early PSC ($P = 1$ or 2), when there is an anticipation of cataract surgery in future, like within six months to one year or in patients with diabetes where early cataract development can occur. In a developing country like India, where SICS surgery is still a measure chunk of surgical procedure for cataracts, then thinking of optical biometer in those places is far to the need.^[3] Thus, immersion A-scan ultrasound still is the preferred method for biometry due to its lesser cost and reliable measurement. Immersion A scan can achieve ± 0.5 diopters of emmetropia postoperatively in a large percentage of cases that have been studied.^[4] In many centers, this is the only method to calculate the IOL power, and the postoperative vision achievement is also 20/20 or near to it in a good percentage of cases. Therefore, in these places, the necessity for optical biometry has not come to the need yet. But cataract surgery will be more advanced nowadays, like for premium IOL such as toric and multifocal IOL where the patient's expectations are too high. Usually, these patients sometimes undergo surgery even in the mild cataract stage, then the need for a lower margin of error is the need of the hour. In that cases, the role of optical biometer like IOL master 700 has a definite role from detecting finer details like ACD to keratometry in a single sitting and in a more convenient way. Whereas in the immersion A-scan biometry, the patient has to be in supine position and a cup of fluid has to be put on the eye for the probe's immersion, which is not always convenient. In advanced centers, especially in big cities and tertiary centers, optical biometer has importance along

with the immersion A-scan. Thus gradually, in these centers, IOL Master 700 is replacing the IOL Master 500 nowadays.

In conclusion, where there is a lack of resources and infrastructure in the developing country and a massive burden of cataract-related blindness, there is a lesser need to depend on the expensive optical biometer.^[5] There is always a target of achieving a good cataract surgical rate and good cataract surgical coverage. Immersion A-scan will be still the required biometer for cataract surgery in few coming years in the developing world.

Bhagabat Nayak, Bhumiya Bhatt

Department of Ophthalmology, AIIMS, Bhubaneswar, Odisha, India

Correspondence to: Dr. Bhagabat Nayak,
Department of Ophthalmology, AIIMS,
Bhubaneswar, Odisha, India.
E-mail: bhagabat80@gmail.com

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Access this article online	
Quick Response Code:	Website: www.ijo.in
	DOI: 10.4103/ijo.IJO_2201_21

Cite this article as: Nayak B, Bhatt B. Commentary: Ocular biometry in a developing country's perspective. *Indian J Ophthalmol* 2022;70:111-2.