

Commentary: Conventional phacoemulsification is going to stay for a long time

The study by Medhi *et al.*^[1] has shown that one-month postoperative emmetropia is more than 90% by both methods, which proves that both methods are highly successful. However, this study found a slightly higher percentage (93.7%) of emmetropia achieved in FLACS than in conventional phacoemulsification (90.6%). Nevertheless, they have already mentioned that their study was underpowered to find the differences in refractive outcomes between the two procedures because of the significant difference in sample size. By providing focal tissue photo-disruption within 5 µm and minimal collateral damage, the recent development of femtosecond laser has opened new opportunities in ophthalmic surgery. Associated with a real-time imaging technology, FLACS has enabled more precise anterior capsulotomy, corneal incisions, and crystalline lens fragmentation than with conventional phacoemulsification (CP), without collateral damage to the surrounding ocular structures. This technology has been suggested to improve cataract surgery outcomes as opposed to the manual phaco-emulsification procedure and has been proposed as a breakthrough in cataract surgery.^[2] It is agreeable that cumulative dissipated energy (CDE) is less by FLACS, which will preserve more endothelial cells in the future, and the intraoperative complication in hard cataracts and posterior polar cataracts is less in FLACS than in CP. The significant drawback apart from the massive cost in FLACS is that shifting patients from the laser room to the operation theater for phaco-aspiration is not always convenient to patients and the operating team in terms of maintenance of sterility and lapse of time. The second point is that it is not always easy to open up the keratotomy incision and side port incision by the spatula only because of difficulty in identification of the plane and not proper cutting of the plane by the laser itself. Because the corneal incision plane made by FLACS is rapidly expanding and contracting bubbles of tissue vapour which disrupt adjacent tissue and cleave precise planes within the tissues, it is not always a single sharp plane like by manual keratome incision. Instead, it is multiple laser spots-guided incisional plane creation. The same problem also occurs while removing the anterior capsule cut by laser. It is like multiple capsulotomies by multiple laser spots, not a real continuous capsulorhexis. Thus, sometimes there may be difficulty in removing the capsule in one attempt, as it is not a free-floating capsule always. Because due to aberrant or missed laser spots due to bubbles of tissue vapour, there may be adhesions and tags on capsulotomy margins. Some studies have found similar postoperative visual gain by the two methods,^[3] and some have found more in the FLACS group. Similarly, some studies found that the complication rate is less in the FLACS group,^[4] but some studies observed an equal complication rate.^[5] Thus, although the name "Femto laser-assisted cataract surgery (FLACS)" is glamorous to listen to, it is not always the solution for every patient. Still, conventional ultrasonic phacoemulsification has been the gold standard in recent times for three decades and will remain the choice for a longer time. However, in certain conditions like posterior polar cataract, premium IOL

implantation, etc., FLACS will have an advantage because there will be a good effective lens position so that it will have less high order aberration.^[6] Although the debate has been ongoing for a few years, it is good to always have a comparison because ultimately the patients should gain the ultimate benefit at an affordable cost.

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Access this article online	
Quick Response Code:	Website: www.ijo.in
	DOI: 10.4103/ijo.IJO_2067_22

Cite this article as: Nayak B, Chakraborty K. Commentary: Conventional phacoemulsification is going to stay for a long time. *Indian J Ophthalmol* 2022;70:4306.