

Femtosecond Laser Assisted Cataract Surgery: Are We There Yet?

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Femtosecond laser for cataract surgery has been commercially available since 2011, but has it revolutionised the way we perform cataract extraction? The near infrared laser causes photo disruption of tissue to produce exceedingly precise “cuts” with minimal collateral damage. A number of studies have validated the safety and efficacy of this relatively new technology. Day et al in a Cochrane review concluded “There is currently not enough evidence to determine the benefits and harms of laser-assisted cataract surgery compared with standard ultrasound cataract surgery. The evidence is uncertain because current studies have not been large enough to provide a reliable answer to this question.”¹ However, Popovic and co-workers in a meta-analysis of 14567 eyes, demonstrated that secondary endpoints including effective phacoemulsification time, circularity of the capsulotomy and endothelial cell loss were in significant favour of FLACS.² Sadly, as with the introduction of any new technique or technology, there has been a hesitation in adopting it over the more popular and universal traditional phacoemulsification. However, the indications of femtosecond for both simple and complex cataracts are evolving. The precision and predictability of the femtosecond laser allows its successful use in intumescent, hard, posterior polar and subluxated cataracts.³⁻⁴ The use of arcuate keratotomies for corneal astigmatism management and anterior segment imaging to assess the posterior capsule in eyes with risk of dehiscence are additional advantages. As witnessed in the past, newer technologies undergo evolution and subsequent improvement. A reduction in the cost of initial equipment and patient interface would enable a wider acceptance and penetration of this technology. I strongly believe that the femtosecond technology is here to stay, and should eventually become the standard of care in cataract surgery.



References:

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