Comment on: Comparison of femtosecond laser–assisted cataract surgery and conventional cataract surgery: a meta-analysis and systematic review

We read with interest the review of femtosecond laser–assisted cataract surgery (FLACS) and conventional cataract surgery (CCS) by Kolb et al.1 We feel that it is necessary to highlight the area about the reporting of posterior capsular complications. The article states that posterior capsule ruptures were reported in 0.42% of eyes with FLACS and 0.27% of eyes with CCS and a statistically significant difference was not found. A link to Supplemental Digital Content was then provided for those reading the article online.1

What is not evident to those reading the printed article with no access to the various links was that 75% of the posterior capsular complications occurred with the use of 2 of the 5 FLACS systems. Further subgroup analysis revealed that there was an unequal distribution of patients with 1 group reporting more than 60% of the patients who had posterior capsular complications.

Readers of the printed copy would, therefore, accept the statement that there was no statistically significant difference in capsule rupture rates between FLACS and CCS as presented in the abstract. Those who accessed the article with links online would be directed to explore the evidence base and would rather accept the statement in the text that posterior capsule rupture seemed less with FLACS, which was of clinical importance even if statistical importance is missed.

A recent prospective randomized trial showed a statistically significant decrease in posterior capsule rupture in patients undergoing FLACS.2 This is not unexpected because it has been suggested that most surgeons who convert from manual cataract surgery to FLACS are likely to note a decrease in their posterior capsule rupture rate.3,4

This study states that “visual and refractive results are the most important endpoints for patients’ satisfaction.” The importance of this statement cannot be overemphasized. A ruptured posterior capsule predisposes to cystoid macular edema, retinal detachment, and secondary surgery. Patients now have a larger choice of intraocular lenses (IOLs), including multifocal IOLs and extended-depth-of-focus IOLs, the success of which depends on correct lens placement in the bag. A ruptured posterior capsule unable to support an IOL in the presence of a capsulorhexis either too large or too small to offer optic capture can lead to a very unsatisfied patient postoperatively. FLACS offers an anterior capsulotomy of precisely predetermined size, position, and circularity to cover the implanted IOL. This allows for anterior optic capture with haptics positioned in the ciliary sulcus if needed.5

The meta-analysis offers a review of trials published about the different outcomes between FLACS and CCS. It cannot be used as guidance in cases that have been excluded from the studies that would be uniquely suited for FLACS, such as those with intumescent cataracts or those with loose zonular fibers making capsulorhexis difficult.

The achievement of a precise anterior capsulotomy, low rate of posterior capsular complications, and the decrease in ultrasound energy needed to remove a cataract should play a part in the decision whether to use FLACS, especially for surgeons who have a complication rate of more than 1%, in trainees, or when tackling difficult cases.

REFERENCES


Disclosures: W.J. Scott is a consultant to Johnson & Johnson Vision. M. Lawless is a consultant to Alcon Laboratories, Inc., and Carl Zeiss Meditec AG. Z.Z. Nagy is a consultant to Medicontur, Inc. No other disclosures were reported.


With interest, we read the letter to the editor from Levitz et al. and would like to thank them for pointing out important aspects discussed in our article.1 We agree that focusing on differences between the several laser systems...