in femtosecond laser-assisted cataract surgery (FLACS) is important. In our analysis, all cases of posterior capsule ruptures (PCR) with FLACS were reported using the Catalys or LenSx laser systems. Furthermore, it should be noted that all cases in the Catalys subgroup appeared in 2 Australian centers. Thus, it is possible that they had used certain laser settings that caused a higher rate of PCR. It is also important to mention the absence of PCR with FLACS in our subgroup analysis of randomized controlled trials. The assumption of PCR to occur less during FLACS is confirmed by the recent randomized controlled study by Roberts et al., which did not report any PCR or vitreous loss using the LenSx laser.5

Another important aspect mentioned by Levitz et al. is to consider FLACS in difficult cases because the critical steps in conventional surgery seemed to be facilitated using the laser.5 Even in the first cases of laser surgery, complications rarely occur.3,4

In summary, there are noteworthy advantages of FLACS compared with conventional cataract surgery, such as higher precision and less damage of ambient structures. Even better results of laser surgery, especially a reduction of complication rates, might be expected with more clinical experience and further developed laser systems.

Carolin Kolb, MD
Mehdi Shajari, MD, PhD, FEBO
Thomas Kohnen, MD, PhD, FEBO
Department of Ophthalmology, Goethe University, Frankfurt am Main, Germany

Corresponding author: Thomas Kohnen, MD, PhD, FEBO, Department of Ophthalmology, Goethe-University Frankfurt am Main, Theodor-Stern-Kai 7, Frankfurt am Main 60590, Germany. Email: kohnen@em.uni-frankfurt.de.

REFERENCES

Disclosures: M. Shajari is a consultant for OCLULUS, Oerli, Carl Zeiss Meditec, Santen, and STAAR. T. Kohnen is a consultant for and conducts research for Abbott/Johnson & Johnson Vision, Alcon Laboratories, Inc./Novartis, Avedro, Oculentis, OCLULUS, Presbia, Schwind, and Carl Zeiss Meditec; is a consultant for Allergan, Inc., Bausch & Lomb, Inc., Dompé, Gueder, Merck, Rayner, Santen, STAAR, Thea, TearLab, Thieme, Uni-Med Verlag, Med Update, and Ziemer; and conducts research for Hoya. C. Kolb has nothing to disclose.

Comment on: Effect of anti-inflammatory regimen on early postoperative inflammation after cataract surgery

We read with interest the article by Erichsen et al.1 We are concerned that some readers may be confused by the study. The abstract proposes to compare topical anti-inflammatory drops to dropless surgery where a sub-Tenon depot of steroid was placed during surgery. Dexamethasone solution is not a depot drug and dissipates quickly from the eye. It is, therefore, not surprising that injected dexamethasone was inferior to the topical regimens instilled for 3 weeks postoperatively. Dropless is mentioned throughout the article, and the reader may generalize the results to the injection-based, drop-free technique rather than to the inferiority of dexamethasone as the agent used.

Topical anti-inflammatory drops are commonly prescribed for a month postoperatively. Dexamethasone is a solution that spreads rapidly after subconjunctival injection and is eliminated from aqueous humor in about 2 days.2 Indeed, the authors note that they “used dexamethasone because of its potency and short period of action...[to] minimize risk for sustained IOP elevations.” We submit that the period of action of a single injection of dexamethasone is too short a period of time to effectively suppress inflammation after cataract surgery. A depot substrate such as triamcinolone acetate, where the active steroid moiety is slowly released from its acetate binder, will have anti-inflammatory effects persisting for about 6 weeks and with equivalent risk for IOP rise to topical steroid drops.3 In addition, injection of the short-acting dexamethasone in the sub-Tenon space results in less drug levels in the anterior chamber and less effectiveness in suppressing aqueous flare and other products of inflammation.4

We believe a longer acting anti-inflammatory drug, such as triamcinolone acetate, is a more appropriate drop-free agent and would have been a more suitable comparison group for a comparative study with topical agents. Given the choice of dexamethasone as the anti-inflammatory agent, the reader should not “throw the baby out with the bath water” and conclude that a drop-free approach of injecting long-acting steroid is ineffective but rather that dexamethasone solution is not the right choice of agent. This could have been made clearer throughout the article.

William G. Myers, MD
Northwestern University, Chicago, Illinois

Neal H. Shorstein, MD
Kaiser Permanente, Walnut Creek, California

Corresponding author: William G. Myers, MD, Northwestern University Department of Ophthalmology, 747 N Wabash Ave 2404, Chicago, IL 60611. Email: wmyers2020@gmail.com.
Reply: Effect of anti-inflammatory regimen on early postoperative inflammation after cataract surgery. We appreciate the interest in our article by Myers and Shorstein, who are concerned that readers of our article may generalize our results regarding the inferior anti-inflammatory effect of a dropless approach using a sub-Tenon depot of dexamethasone phosphate and conclude that all dropless approaches are inferior.

We agree with Myers and Shorstein that triamcinolone acetate would have a much longer lasting effect than dexamethasone phosphate. We chose dexamethasone phosphate for its potency and short period of action to avoid elevations of intraocular pressure. Given our results, we must agree that sub-Tenon depot of dexamethasone phosphate is not appropriate as a dropless approach to anti-inflammatory prophylactic treatment. We did not use triamcinolone acetate, and our study cannot be used to extrapolate from one dropless approach to another, and we trust that readers of our article will not “throw the baby out with the bath water” and conclude that all dropless approaches are inferior based on our results.

Jesper H. Erichsen, MD
Department of Ophthalmology, Rigshospitalet-Glostrup, Glostrup, Denmark
Julie L. Forman, MSc, PhD
Section of Biostatistics, Department of Public Health, University of Copenhagen, Copenhagen, Denmark
Lars M. Holm, MD, PhD Line Kessel, MD, PhD
Department of Ophthalmology, Rigshospitalet-Glostrup, Glostrup, Denmark
Department of Clinical Medicine, University of Copenhagen, Copenhagen, Denmark

Corresponding author: Jesper H. Erichsen, MD, Department of Ophthalmology, Rigshospitalet-Glostrup, Valdemar Hansens Vej 1-23, 2600 Glostrup, Denmark. Email: jesper.h.erichsen@dadlnet.dk

Funding was received from the Independent Research Fund Denmark (DFF—7016-00161), Fight for Sight Denmark and Henry og Astrid Møllers fond.

Disclosures: None reported.

Comment on: Intraindividual comparison of cytokine and prostaglandin levels with and without low-energy, high-frequency femtosecond laser cataract pretreatment after single-dose topical NSAID application

I read with great interest the article by Schwarzenbacher et al. The authors report, with supporting references, the concept that the release of prostaglandins and other inflammatory cytokines from iris, trabecular meshwork, and ciliary body tissues into the anterior chamber results as a consequence of vibrations and shockwaves induced by the femtosecond laser pulse or by the bubbles created with femtosecond laser use.

Nishi et al. have reported that lens epithelial cells (LECs) cultured LECs harvested during manual cataract surgery with circular capsulorhexis, release a significant amount of PGE2, cytokines interleukin (IL)-1, IL-6, and IL-8, transforming growth factor-β, fibroblast growth factor, and epithelial growth factor into the culture media (Figure 1). LECs are directly injured by femtosecond laser-assisted cataract surgery. They may well prove to be the cells primarily responsible for the subsequent release of inflammatory agents into the ocular media.

Okihiro Nishi, MD
Osaka, Japan

Corresponding author: Okihiro Nishi, MD, Nishi Eye Hospital, 4-14-26 Nakamichi, Higashinari-ku, Osaka, 5370025 Japan. Email: okihiro@nishi-ganka.or.jp

REFERENCES
1. Schwarzenbacher L, Schartmüller D, Leydolt C, Menapace R. Intraindividual comparison of cytokine and prostaglandin levels with and without low-energy,