



FEOph Symposium and Roundtable Discussion in Bonn, September 29th, 2018
Femto-assisted cataract surgery - is it becoming a gold standard?
(Moderator: T. Kohnen) (Participants: R. Bellucci, S. García-Delpech, H. Kasaby, P.-J. Pisella)

Questions:

1. Does the femtosecond laser have advantages in the creation of capsular opening (capsulotomy)?

Most of the participants were of the opinion that the laser in the long run creates a more circular and precise opening of the anterior (as well as the posterior) capsule. A consistent sizing of the capsulotomy could create 100% overlap of the anterior capsule to the IOL optic. Whether or not this produces better outcomes needs to be demonstrated in larger patient cohorts as the difference could be small, but may be significant.

2. Will femtosecond laser incisions be the state-of-the-art method in the future of lens based surgery?

Most of the participants are not producing incisions with the femto-laser at the moment. Of those who had more experience, a continuous modification and verification of laser energy and incision shape has helped to use the laser as the primary tool for the creation of the corneal openings when performing femto-assisted cataract or refractive lens surgery.

3. Will there be a benefit to using the femtosecond laser for refractive lens exchange or cataract removal?

This general question was discussed by all participants and was divided into 2 aspects.

- 1. For refractive lens exchange, it is most likely that with the more sophisticated optical systems (toric, EDOF or tri/quadrifocal IOLs) predictable astigmatic control (reduction or at least no induction) and perfect IOL centration will become very important. Therefore, the fast developing laser platforms, which will not only control incisions but also predict refractive outcomes, will be advantageous!*
- 2. For cataract surgery, a reduction of endothelial cell loss has already been demonstrated, which may help cataract surgery overall. Titration of laser energy due to the preoperative lens hardness has recently been demonstrated.*

Overall the participants were positive that computer-assisted cataract surgery will go its way in the future, but at the moment the field is still developing.