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Reply: We would like to apologize to Dr. Alió if he was offended that his work was not cited in our review article. There was certainly no purposeful intent on the part of the authors to exclude his work from our review nor to neglect his contributions to the field. Rather, our work was intended as a brief review of the existing technologies and, therefore, inevitably some concision was necessary.

Dr. Alió makes a point regarding the term *microincisional cataract surgery* for which he registered a trademark within the EU in 2003. This trademark is not registered in the United States nor would it qualify since the abbreviation MICS bears the same meaning as the underlying generic phrase. The use of sub-1.0 mm incisions a decade ago to remove the cataract was indeed revolutionary. However, our review refers to the current vernacular, describing an incision associated with coaxial phacoemulsification of 2.4 mm or smaller.

While work with sleeveless biaxial phacoemulsification has been invaluable to our understanding of coaxial phaco, we thought that since it is a procedure performed by a minority of surgeons (including several of the authors), it did not warrant an expanded discussion. To Dr. Alió, I offer this: We are still hindered by the final incision size required for safe IOL implantation, particularly on this side of the Atlantic.

We disagree that the omission in any way negates the validity of the article. Rather, it summarizes the current validity of using 2.4 mm incisions or smaller with coaxial phacoemulsification in safely delivering outstanding visual results for our patients.

For those interested in biaxial phacoemulsification, Klonowski et al.'s[1] excellent review article does outline and explain the steps needed to transition from a coaxial procedure to biaxial.—*Steven Dewey, MD, George Beiko, BM BCh, FRCSC, Rosa Braga-Mela, MD, MEd, FRCSC, Donald R. Nixon, MD, FRCSC, DABO, Tal Raviv, MD, FACS, Kenneth Rosenthal, MD*

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Ocular anterior segment changes and corneal biomechanics in pregnancy

In their recent article, Goldich et al.[1] reported the potential ocular anterior segment changes during pregnancy. They examined 60 pregnant and 60 nonpregnant women with the aid of a dynamic bidirectional applanation device (Ocular Response Analyzer, Reichert Ophthalmic Instruments) and Scheimpflug imaging (Pentacam HR, Oculus Optikgeräte GmbH) and showed that pregnant women had significantly steeper keratometry (K) values and significantly lower Goldmann-correlated intraocular pressure (IOP) and cornea-compensated IOP than the control group. They did not observe between-group differences in corneal hysteresis (CH), corneal resistance factor (CRF), corneal posterior curvature, central corneal thickness and volume, anterior chamber depth and volume, or iridocorneal angle. Their results suggest that hormonal changes during pregnancy may lead to decreased IOP and increased corneal curvature. The authors also conclude that current available technology cannot determine whether there are pregnancy-induced changes in corneal biomechanics. We would like to highlight some aspects of the study that merit further attention.

First, the authors did not include data about the participants' stage of pregnancy. Did they examine women in the first, second, or third trimester? Or did they enroll pregnant women at different gestational stages? It is well established that pregnancy is associated with decreased IOP, increased corneal thickness, and higher K values than normal subjects.[2–5] However, these changes occur particularly during the second and third trimesters, with increasing intensity as the pregnancy progresses.[2–4] Based on the fact that hormonal changes during pregnancy vary significantly between the trimesters and considering that unexpected biomechanical changes during pregnancy, such as post-laser in situ keratomileusis ectasia or exacerbation of keratoconus, are mainly attributed to these hormonal influences,[6,7] we believe that biomechanical evaluation of the cornea should be trimester related and always correlated to analytical hormonal screening of the patients. Therefore, in our opinion, comparative study of the 3 trimesters of pregnancy is essential to be able to extrapolate valid conclusions about the impact of pregnancy on corneal parameters.

On the other hand, the authors use CH and CRF to evaluate the corneal biomechanical properties in both groups. Again, the presumable enrollment of pregnant women at different gestational stages may have severely influenced the results, masking the true impact of late-stage pregnancy on corneal biomechanics. Moreover, it is well known that CH and CRF are descriptive metrics that reflect a rough estimation of high-magnitude biomechanical changes, but they cannot depict more subtle biomechanical variations.[6] In our opinion, sophisticated dynamic bidirectional applanation device signal analysis by evaluating fundamental dynamic bidirectional applanation device–derived parameters, which are more sensitive to small-scale biomechanical changes,[8,9] is the key to unraveling the complex corneal biomechanical alterations during pregnancy.

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Reply: As we reported, our observations showed that pregnancy is associated with changes in corneal curvature and IOP. We did not observe statistically significant changes in corneal biomechanics as assessed by a dynamic bidirectional applanation device and presented by CH and CRF. Similar observations were recently reported by others.[1]

In a previous study, we followed a cohort of young healthy women through their menstrual cycle. We reported that hormonal changes that occurred during menstrual cycles are associated with statistically significant changes in corneal biomechanical parameters and corneal thickness.[2] Ideally, similar methodology should be used for the studies evaluating changes occurring through human pregnancy. Following 1 large cohort from conception through all stages of pregnancy and after delivery would undoubtedly provide us with the best scientific results. Unfortunately, in practice, such a project is difficult to accomplish. That is why we compared 2 different groups, pregnant and nonpregnant, and assumed that observed differences in the studied parameters originated from being or not being pregnant. As we reported in our study, most of the pregnant women were in their third trimester with a mean gestational age of 31.2 weeks. Therefore, our conclusions regarding an association between pregnancy and ocular changes can be interpreted as associated with the third trimester of pregnancy.

We used the CH and the CRF as parameters characterizing corneal biomechanical properties as they are presented in the data output of the dynamic bidirectional applanation device. No additional manipulations with the device-derived signals were performed as this was not the primary aim of our study and because their scientific validity and relationship to corneal elasticity and rigidity are not yet understood.
—*Yakov Goldich, MD*

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Supplementary attachable IOL as a viable optical alternative to the light-adjustable IOL

This letter is in response to a recent review of adjustable intraocular lens (IOL) power technology.[1] While the light-adjustable IOL technology may be beneficial in many cases with an undesirable refractive outcome, it raises some unanswered questions.