

Table 1. The pH of the epinephrine and its components.

	pH
1:1000 epinephrine (American Reagent)	3.133
nonpreserved lidocaine 4% (Abbott Labs)	6.333
BSS Plus (Alcon Laboratories)	7.197
Shugarcaine	6.97
3:1 Shugarcaine/epinephrine	6.899

hooks or expansion devices will still prove necessary after intracameral epinephrine. I encourage others to use this therapeutic modality.

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Timing of CTR implantation

We read with interest the recent article by Ahmed et al.¹ regarding the optimal timing for implantation of capsular tension rings (CTRs). We would like to make some observations and comments regarding several points in this important article.

In the article, CTR placement before cataract extraction and bag decompression resulted in more zonular stress than when the ring was placed after extraction. Although the authors state that the “angle of attack and positioning of the leading eyelet, aiming toward the area of greatest zonular weakness, can help avoid iatrogenic trauma,” they do not adequately describe the direction of implantation of the CTRs in these experimental eyes relative to the location of the dialysis. The amount of significant displacement of the capsular bags during implantation in this article suggests that although the CTR may have been inserted toward the dialysis, the overall vector forces may have been directed away from the dialysis, resulting in the large displacement. We have found that injection of the CTR in a clockwise or counterclockwise orientation through a 1.2 mm incision that can be placed in any meridian allows atraumatic implantation by directing the majority of vector forces toward the area of zonular weakness. By injecting the CTR following cortical cleaving hydrodissection and guiding the ring using a Lester hook in the other hand to control the forces on the capsular fornix as it is implanted, we have never seen an exacerbation of a zonular tear.

Although significant capsular bag displacement was observed in this study with CTR implantation prior to cataract extraction, the authors failed to evaluate the protective influence of having a CTR in place during phacoemulsification. We believe that the greatest advantage of the CTR is the ability to implant it prior to phacoemulsification and thus distribute any localized forces that are directed onto the capsular bag to the entire zonular apparatus.

Although the authors claim that the capsular bag can be supported during phacoemulsification with capsular hooks, our experience has been that hooks merely support the anterior capsule and perhaps add some support to the zonular apparatus but give little support to the equatorial and posterior zonular fibers that are still receiving the full brunt of phaco aspiration forces as epinucleus and cortex are removed from the capsular fornices. In fact, the few cases of complete zonular dehiscence we have experienced occurred when phacoemulsification and aspiration were performed without a CTR and only capsular hooks were used for support.

In our experience with over 450 CTR implantations during the U.S. Food and Drug Administration–monitored clinical study for the Morcher ring, as well as in those cases that we have done since approval of the ring, we have found that implanting these devices prior to cataract extraction has been efficacious, atraumatic, and has added stability and security during phacoemulsification and cortical extraction. When deciding when to implant CTRs in high-risk eyes, the drawbacks of potential increased zonular stress during early implantation will have to be weighed against the benefit of reduced zonular stress by means of improved zonular support during complicated phacoemulsification. We congratulate Ahmed et al.¹ on taking the first steps at evaluating the stresses placed on the capsular bag during CTR implantation; however, we feel further studies will need to be undertaken before a definitive recommendation regarding the optimal timing for implantation can be concluded.

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Mechanism of myopic shift associated with high IOP after LASIK

Katbab et al.¹ describe 2 patients who experienced a myopic shift in the setting of steroid-associated increased intraocular pressure after laser in situ keratomileusis (LASIK). Several key pieces of information are omitted from their report: the best corrected visual acuity (BCVA) achieved at the time of the myopic shift, a description of corneal findings, and a proposed mechanism for the refractive change.

Interface fluid associated with topical steroid use after LASIK is a well-known phenomenon, which was first described in 1999.² This process results in a myopic shift that resolves as the fluid disappears when steroids are discontinued. In the presence of interface fluid, the BCVA is decreased.

It would be interesting to know whether the patients presented in this report had findings consistent with interface fluid and decreased BCVA or whether the authors are proposing an alternate mechanism for this temporary myopic shift.

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