

eye - light[®] line

**PRE AND POST
REFRACTIVE SURGERY PROTOCOL**

75%

**OF REFRACTIVE POWER OCCURS AT TEAR
FILM INTERFACE**



- Tear film most important refracting surface of the eye
- Dry eye
 - Unpredictable pre-operative measurements
 - Delayed healing
 - Suboptimal postop results



QUOTE is a courtesy of Karl Stonecipher, MD
Original presentation

DRY EYE DISEASE: THE JOURNEY

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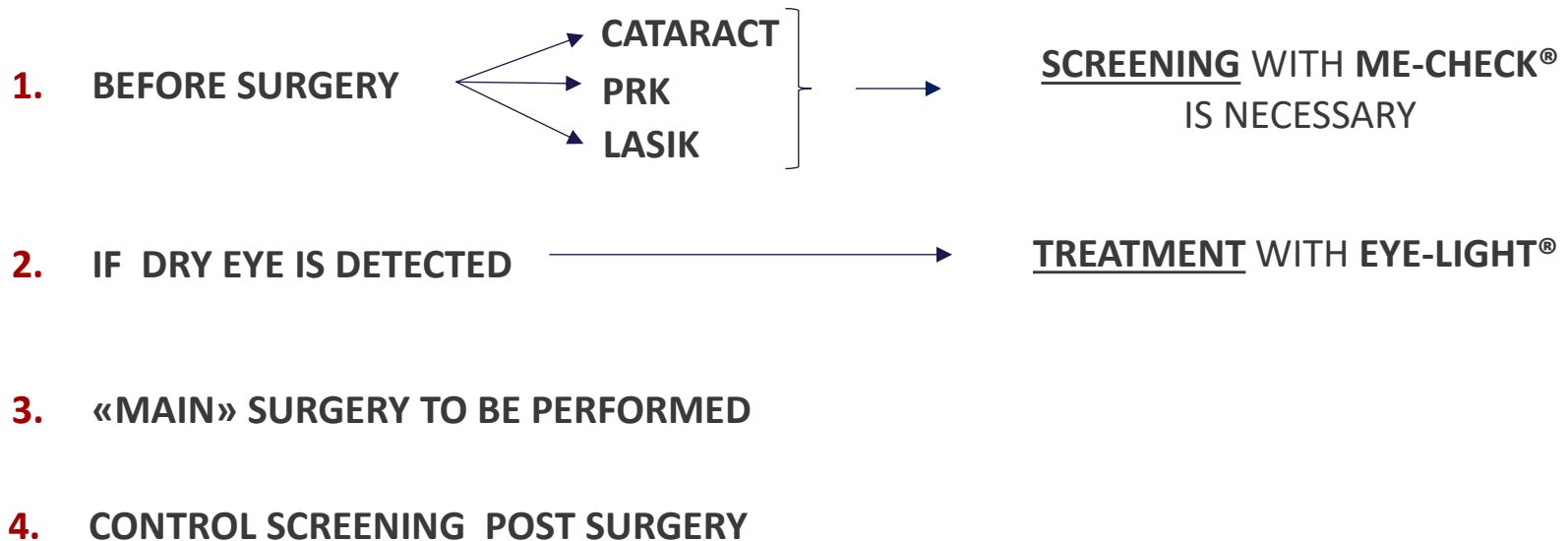
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PRE-REFRACTIVE SURGERY PROTOCOL

Marguerite McDonalds, MD FACS :

«...Preoperative treatment of dry eye is a proven way to limit complications linked to dry eye; it improves outcomes because it decreases the incidence and severity of postoperative dry eye, and speeds visual recovery.»

(Full article here enclosed)



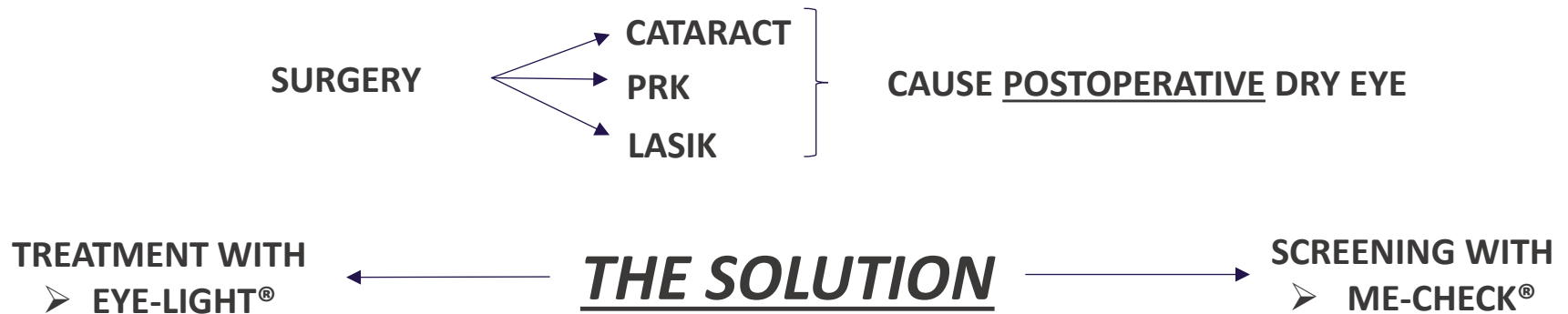
POST-REFRACTIVE SURGERY PROTOCOL

Marguerite McDonalds, MD FACS :

«...dry eye is the most common and potentially devastating complication of surgery...

«...The postoperative incidence of dry eye is even higher after lenticular surgery; one frequently cited study reveals that 87% of patients suffer from postoperative dry eye...»

(Full article here enclosed)



- ✓ «100%» PATIENTS SATISFACTION
- ✓ MORE COMPLETE PROFESSIONAL PROPOSAL
- ✓ NEW PROFESSIONAL APPROACH
- ✓ INCREASED ECONOMIC OPPORTUNITIES

The forgotten symptom: dry eye in cataract patients

Preoperative treatment proven to limit complications

October 01, 2008

By [Marguerite McDonald, MD FACS](#)



Postoperative quality of vision starts with a healthy ocular surface. Often, however, the management of the ocular surface is not viewed as an important part of the perioperative regimen with cataract and refractive surgery patients. To help maximize patient satisfaction and to meet their growing expectations for crisp vision on the first postoperative day, it is crucial to prioritize the management of the tear film and ocular surface.

In short

We know that the tear film is the most important refracting surface of the eye, and dry eye is the most common and potentially the most devastating complication of surgery. In addition, we also know that disruption of the tear film very much magnifies the glare and halo that accompany all multifocal IOL surgeries.

Peer-reviewed literature supports the idea that every patient experiences dry eye after lenticular surgery, and infers that not all patients necessarily develop symptoms. Statistics show that dry eye is a major factor when assessing the success of ocular surgery. Peer-reviewed publications submit that there is a great prevalence of postoperative dry eye. While LASIK and PRK have been studied exhaustively, there are few publications concerning post-cataract dry eye.

Incidence higher than you might think

Interestingly enough, however, the postoperative incidence of dry eye is even higher after lenticular surgery; one frequently cited study reveals that 87% of patients suffer from postoperative dry eye.¹

In 2007, my colleague, Dr X-M Li, published a paper in *Cornea*, attesting to this figure,² having studied 50 eyes of 37 patients. This paper documented that most patients suffered from ocular discomfort (as measured with the OSDI questionnaire) and exhibited corneal fluorescein staining in the early postoperative period. Dr Li concluded that postoperative dry eye peaks at one month after cataract surgery, but persists for at least three months, and that visual function may be negatively impacted if the dry eye symptoms persist. In the discussion section of the paper, Dr Li stated that symptoms of dry eye will inevitably emerge in most patients and that misuse of their prescription eye drops was a major pathogenic factor.

Corneal sensation is absolutely critical for maintaining corneal epithelial integrity. We know that cataract patients are already at risk of dry eye because they are older. In addition, the temporal clear corneal incision — as small as it is — may actually transect one of the two main nerve bundles that enter the cornea at three and six o'clock. In many cases, limbal relaxing incisions are also performed, leading to the transaction of even more corneal nerves. Of course, LASIK denervates much more of the cornea because of the flap creation and then the ablation. It is important to note that at least 10% of refractive IOL patients (and perhaps as many as 30%) will undergo both cataract surgery and laser vision correction.

Preoperative treatment urged

Preoperative treatment of dry eye is a proven way to limit complications linked to dry eye; it improves outcomes because it decreases the incidence and severity of postoperative dry eye, and speeds visual recovery. In addition, with lenticular surgery, there is more reliable keratometry and improved IOL power accuracy. In the case of a patient needing LASIK after lenticular surgery (i.e. bioptics), the effective treatment of dry eye allows for an improved wavefront evaluation.

Many treatment options exist to help manage the ocular surface. Recently, our practice has employed a new tear formulation that has just become available over-the-counter. blink Tears (AMO), as research shows, is uniquely suited for post-cataract surgery. Dr Eric Donnenfeld, the lead author on a study that we performed last year, confirmed this in a poster presentation made at this year's ASCRS congress.³

The blink Tears formula has polyethylene glycol 400 as one of the active ingredients, sodium hyaluronate as a viscosity enhancer, a number of beneficial electrolytes, and Ocupure, as a very gentle preservative.

The evidence

A 30-day, two-armed, double masked study, which included 110 subjects, revealed the effectiveness of the formulation. Subjects were dosed QID with either blink Tears or Systane (Alcon) and requested to complete an OSDI psychometric questionnaire at weeks one, two, three, and four.

There was significantly less blur on instillation of blink Tears on day 30 when compared with the HP-Guar tear (Systane), and patients in the blink Tears group experienced considerable improvement in comfort over time. Visual quality was also improved over time, probably because of the increased stabilization of the tear film with hyaluronic acid.

Our clinical trial documented that blink Tears is preferred to Systane. The study also documented greater ocular comfort, better visual acuity, and less blurring with blink Tears when compared with the control.

Since the Delphi panel of dry eye experts convened in the late 1990's, dry eye has been categorized into four diagnostic levels with four corresponding levels of suggested treatment. When performing LASIK, the medical team should add two severity steps to their treatment plan; in other words, they should treat the preop LASIK patient with mild dry eye as if he or she were much more severely dry. For lenticular surgery, the medical team should add one severity step to the treatment plan.

Raising the bar

In summary, there are recent technological advances in cataract and refractive surgery that really raise the bar for what we and our patients consider to be a successful outcome. The effective treatment of preoperative dry eye improves outcomes. New therapies allow us to decrease dry eye incidence and severity, and improve quality of vision; coordinated pre-, intra-, and postoperative management is required. The new blink Tears formula is a comfortable, long-lasting, non-blurring addition to our perioperative regimen, and has already proven to be an effective therapy for our post-cataract and refractive patients.

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PRE-SURGICAL PROCEDURE

a. Routine Exams

b. DED SCREENING 

MEIBOSCALE

RESULTS:	Level	Treatment
	0	1 treatment advised (only Light Modulation)
	1	1 treatment (complete OPE + LM)
	2	2 treatments (complete OPE+LM)
	3	2 treatments (complete OPE+LM)
	4	3 treatments (complete OPE+LM)

EYE-LIGHT®

TREATMENT

PROCEDURE:	Meiboscale Level	Treatment
	0	Immediately after screening
	1	Immediately after screening
	2 and 3	First treatment after screening Second treatment 3/5 days after first one
	4	First + Second as above + Third treat. 5/7 days after second treatment

!!! LAST TREATMENT MUST BE DONE 24 HOURS PRIOR TO SURGERY !!!

POST-SURGICAL PROCEDURE

- a. Post-surgical routine exams
- b. DED screening. According to MEIBOSCALE result, apply same treatment pattern as for the pre-surgical procedure
- c. DED screening after EYE-LIGHT® treatments

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LIGHT ON A NEW TREATMENT FOR DRY EYE DISEASE AND POST BLEPHAROPLASTY

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Full paper available on request to your Distributor

Paper presented at ASCRS – Washington – May 2018



*A novel way to treat
Meibomian Gland Disease*

LIGHT TREATMENTS

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