

A NEW STANDARD FOR A TOP OPHTHALMIC SURGERY



IN ORDER TO OBTAIN THE MOST CORRECT POST-SURGERY VISION, IT IS NECESSARY TO CHANGE PRE-SURGERY PROTOCOLS. ONLY IN THIS WAY IT WILL BE POSSIBLE TO PROVIDE A PERFECT VISION FOR EVERYONE



WHY WE DON'T HAVE A PERFECT VISION FOR EVERYONE?

«Unresolved ocular surface disease (OSD) represents a major risk factor for suboptimal outcomes in refractive surgery¹. Untreated preoperative dry eye disease (DED) and meibomian gland dysfunction (MGD) can impact the accuracy of refractive calculation and contribute to poor vision outcomes¹. Existing DED, both asymptomatic and symptomatic, can be exacerbated during surgery and lead to postoperative patient dissatisfaction with their cataract procedure¹.»

References:

1. Labetoulle M et al. Management of dry eye disease to optimize cataract surgery outcomes: two tables for a daily clinical practice.

J Fr Ophthalmol. 2019; 42:907-12

« ./. The 2018 ESCRS Clinical Trends Survey revealed the vast majority of respondents agree that mild-to-moderate dry eye significantly impacts keratometry and intraocular lens (IOL) calculations. However, <u>routine</u> examination of the ocular surface

is inconsistent. Eighty-four percent of respondents routinely check the ocular surface in all or most of their preoperative laser vision correction (LVC) examinations, but only 76% perform an ocular surface check during preoperative cataract surgery examinations. This suggests that cataract surgeons will deal with significant ocular problems in aproximately 40% of their preoperatively or both preoperatively and postoperatively¹.»

References:

1. José Güell, MD, PhD - Trends in OSD Treatment: 2018 ESCRS Clinical Survey Data « ./. In people with unstable tear film, there may be variation of more than 1.0D, which can correspond to an error of the same magnitude in lens power calculation and thus significantly impact vision¹. Dry eye symptoms also affect the repeatability and accuracy of keratometry and topography.²»

References:

1. Cochener B et al. Prevalence of meibomian gland dysfunction at the time of cataract surgery.

Cataract Refract Surg. 2018; 44:144-8

2. Filomena Ribeiro MD, The importance of treating OSD in cataract refractive practice. EUROTIMES, Dec.2019/Jan.2020 « ./.more than half of patients undergoing cataract surgery have dry eye symptoms¹, and meibomian gland dysfunction (MGD) is diagnosed in the majority of patients with dry eye disease (DED), and more than half of refractive surgery candidates²,³.»

References:

1. Stapleton F et al. TFOS DEWS II Epidemiology Report.

Ocul.Surf.2017; 15:334-65

2. Lemp M, et al. Distribution of aqueous-deficient and evaporative dry eye in a clinic-based patient cohort: a retrospective study.

Cornea. 2012; 31(5):472-78

3. Cochener B et al. Prevalence of meibomian gland dysfunction at the time of cataract surgery.

J Cataract Refract Surg. 2018; 44:144-8



...we must change this unsatisfactory status!

WHAT SHOULD BE DONE?

« ./. It is therefore important to detect, diagnose and treat OSD prior to surgery. The benefits of pretreating MGD on keratometry, prior to cataract surgery, have been demostrated: 88% of patients with well-managed MGD were within 0.25D of refractive target and 92% were within 0.5D¹»

from preoperative ocular surface preparation, and there is a clear case for surface optimisation in people with DED, MGD and conjunctival inflammation.»

« ./. All patients can benefit

1. Cochener-Lamard. Optimisation of the ocular surface for accurate biometric measurements.

Presented at ESCRS 2019, Paris, France.

« ./. Awarness of OSD in cataract surgery candidates is critical to optimising postoperative outcomes, because the tear film is an important component of ocular power.

Effective, early management of OSD will improve pre-surgery assessments, increase accuracy of IOL power calculations and help reduce complications associated with surgery. Management of OSD in the pre-, peri- and postoperative phases of cataract surgery will contribute to more stable vision and greater patient satisfaction.¹»

1. Filomena Ribeiro MD, The importance of treating OSD in cataract refractive practice. EUROTIMES, Dec.2019/Jan.2020 1. Baudin C. Ocular surface and external filtration surgery: mutual relationships. Dev. Ophthalmol. 2012;50:64-78

« ./. Patient expectations from cataract surgery are higher than ever and most physicians should resolve DED to contribute to patient satisfaction after a refractive procedure¹. Unresolved OSD is likely to lead to suboptimal postoperative vision quality, because preoperative calculations will be inaccurate²»

1. ESCRS. Clinical Survey Data: ocular surface. 2018

2. Cochener-Lamard. Optimisation of the ocular surface for accurate biometric measurements.

Presented at ESCRS 2019, Paris, France.

« ./. There is a clear need to encourage preoperative assessment of the risk of DED development or worsening in all patients as a routine approach to cataract surgery. In the majority of cases (80%+) presenting for refractive surgery, only an estimated two minutes is required to assess the ocular surface, and only five minutes in patients who are at greater risk of DED or who have existing symptoms.¹ ./. an unstable tear film leads to inaccurate or non-repeatable preoperative measurements, robust assessment is recommended in all patients who are candidates for cataract surgery¹»

1. Labetoulle M et al. Management of dry eye disease to optimize cataract surgery outcome:Two tables for a daily clinical practice.

J Fr Ophthalmol. 2019; 42:907-12

« ./. Preoperative examination and assessment of tear osmolarity is a key step in understanding the risk of DED and the severity of disease in symptomatic patients¹»

1. Sullivan BD et al. An objective approach to dry eye disease severity. Invest Ophthalmol Vis Sci. 2010;51:6125-30

HOW TO OBTAIN A PERFECT VISION



SURGERY

- **REFRACTIVE**
- CATARACT
- ETC.



LASIK, PRK or CATARACT SURGERY



WE HAVE TO GO FURTHER: SOLUTION

SCREEN TOWARDS **A PERFECT VISION** FOR EVERYONE THANKS TO **AI** ARTIFICIAL INTELLIGENCE AND **3D** IMAGING



WE HAVE TO GO FURTHER: SOLUTION

AN INNOVATIVE TECHNOLOGY TO SOLVE AT 100% AUTOMATICALLY AND PAINLESS OCULAR SURFACE PATHOLOGIES, MGD AND OTHER



A combination of patented technologies to demostrate how **ESPANSIONE GROUP** is able to provide a unique system of its kind, to apply the **Seye-light**

for everyone in the world



BIBLIOGRAPHY

- 1. Low level light therapy as an adjunct treatment for meibomian gland dysfunction K. Stonecipher, C. Komm, R. Potvin ACTA SCIENTIFIC OPHTHALMOLOGY Nov. 2020
- 2. Low Level Light Therapy in the treatment of Meibomian Glands Dysfunction H. Pult ARVO, June 2020
- 3. Dry eye in patient with clinical history of chronic blepharitis and chalaziosis L. Buratto Eye Doctor, March 2018
- 4. Skin temperature measurement after intensive pulsed light (IPL) and Low level light therapy (LLLT) application H. Pult, Die KontaktLinse, 4/2020
- 5. Combined low level light therapy and intense pulsed light therapy for the treatment of meibomian glands dysfunction K. Stonecipher, T. G. Abell, B. Chotiner, E. Chotiner, R. Potvin Clinical Ophthalmology, 2019
- 6. Low level light therapy for the treatment of recalcitrant chalazia: a sample case summary K. Stonecipher, R. Potvin Clinical Ophthalmology, 2019
- **7.** The possibility of the application of low reactive level laser therapy in the field of ophthalmology Toshio Ohsihiro, Takafumi Ohsihiro, K. Sasaki Laser Therapy, 2007

