CLINICAL CASE

DRY EYE

Moderate **Meibomian Gland Dysfunction** (MGD)

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Key words

**Dry eye syndrome (DES) – Meibomian gland dysfunction (MGD)
Dry eye – Ocular surface – LacryDiag® – Tear film – OSDI – BUT
NIBUT - Meibography - Interferometry – Intense pulsed light (IPL)
C.Stim® – TFOS-DEW II**

Summary

Diagnosis and treatment of a female patient with evaporative **Dry Eye Syndrome (DES)** and **moderate Meibomian Gland Dysfunction (MGD)** aggravated by working at a screen and wearing a mask.

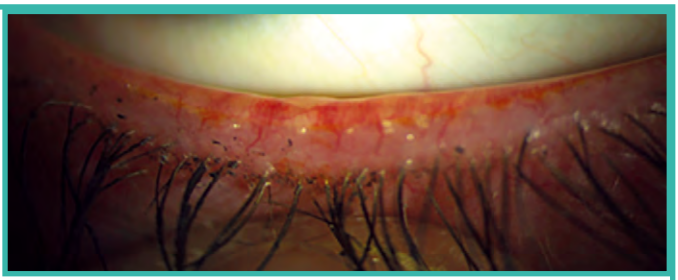
A full diagnosis was performed by means of clinical examination and **LacryDiag®** examinations.

C.Stim® intense pulsed light treatment was initiated in this patient. After three months, **a significant reduction in symptoms was observed, with an improvement in the patient's MGD from moderate to mild.**

1. Clinical examination
2. LacryDiag® examination
3. Initial care
4. IPL treatment C.Stim®
5. Results at three months

Patient history

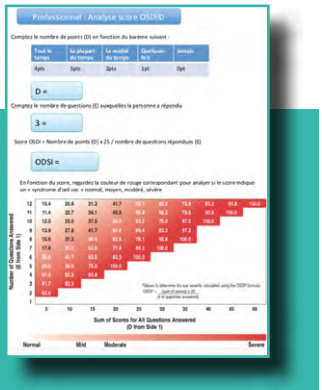
- 49-year-old woman
- Executive assistant, works at a screen 7–8 hours per day
- Visual discomfort with red, itchy, gritty eyes, especially in the morning upon waking and at the end of the day
- Increased sensitivity to light, both on screen and outdoors



- Symptoms have become worse over recent months and are aggravated by wearing a mask

1 Clinical examination

Interview: :
- No relevant medical history
- Not on any medication
- Identification of DES risk factors:
=> Active smoker (approx. 10 cigarettes/day)
- OSDI = 43.75



Focus on the use of questionnaires

There are numerous questionnaires, but the most commonly used are: OSDI, DEQ-5, SPEED.

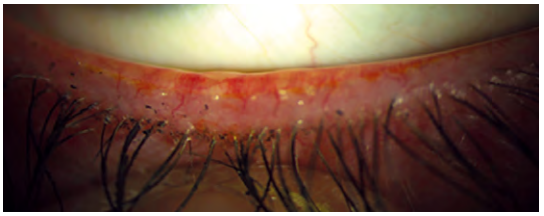
Benefits:
- Useful supplement to the interview
- Rapid assessment of the severity and variety of symptoms experienced
- Can be used to monitor DES progression and the effects of any treatments given
- Simple: can be filled in by patients in the waiting room

Eye examination:

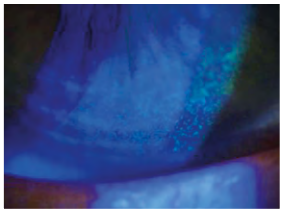
OD		OS
10/10 Pa 2 +0,75 add+0,75	AV	10/10 Pa2 +1,00 add+0,75
16 mmHg	PIO	17 mmHg

Slit lamp examination:

- Moderate MGD
- Incomplete blinking
- OD BUT 5 seconds
- OS BUT 4 seconds with significant tear instability



Telangiectasia along the free margin, meibum thick and difficult to express, several meibomian glands blocked



A few spots of superficial punctate keratitis on the lower eye

2 LacryDiag® examination

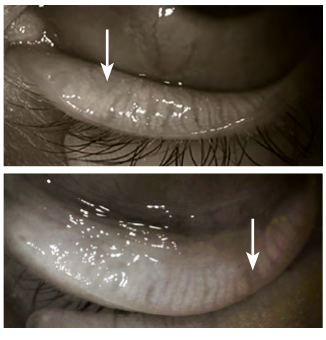
Interferometry: disrupted => Disruption of the lipid layer

Tear meniscus height: normal

NIBUT : decreased to 5.6 seconds => Tear instability

Meibography:

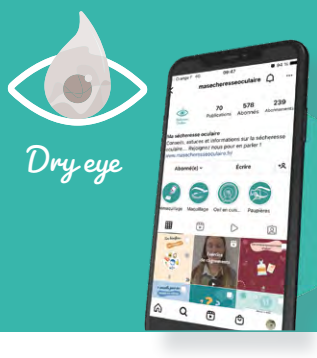
- A few dilated and blocked meibomian glands
- Several glands atrophied



Focus on the diagnosis

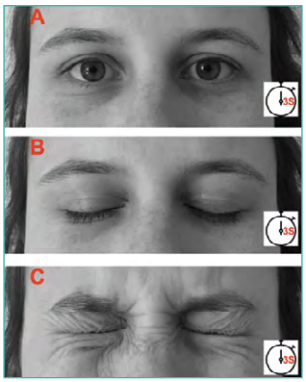
Moderate Meibomian Gland Dysfunction (MGD) causing evaporative Dry Eye Syndrome (DES).

For a better treatment compliance:
Patient information and explanation of the physiopathology (personalised information sheet and website: www.mydryeyedisease.com)



3 Initial care

- Instillation of preservative-free artificial tears multiple times daily
- Eyelid care *(heating, massage, cleaning)*
- Blinking exercises
- Encouragement to stop smoking!
(Explanation of the harmful role of smoke, particularly on the ocular surface)



Two-month check-up

- Patient still experiencing discomfort
- Symptoms reduced but still present, despite good treatment compliance
- Moderate MGD upon clinical examination

C.Stim® IPL treatment initiated

Symptomatic treatment continued

4 C.Stim® IPL treatment

- Treatment protocol: three sessions on D0, D15 and D45
- 4 shots per side per session at a fluence of 8 to 14 J/cm2
- Protective goggles worn by patient and doctor
- Expression of meibum with forceps after each session to optimise the results

Results at three months

Marked improvement in symptoms: OSDI 43.75 on D0 / OSDI 25 at M3

Improvement in MGD: Moderate before treatment / Mild after treatment

Symptomatic treatment will need to continue long term

Further IPL treatment as necessary

Conclusion

- IPL treatment with C.Stim® is fast, effective and safe.
- C.Stim® IPL can be offered to patients with MGD when symptomatic treatment is insufficiently effective.

Focus on Meibomian Gland Dysfunction (MGD)

Aetiology of MGD

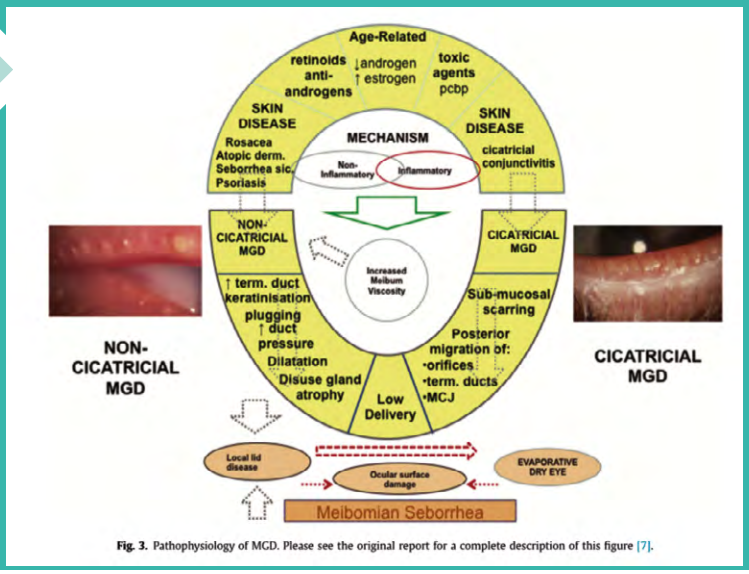


Fig. 3. Pathophysiology of MGD. Please see the original report for a complete description of this figure [7].

Classification of MGD

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