

TREATMENT OF DRY EYE

“Andorra Dry Eye Formula”

Treatment algorithm evaporative dry eye

Manifest Blepharitis:

Acute Infection – antibiotic/steroid ointment first followed by

1. Clean Lid

- Heat exposition of lids with infrared light/warm compress 15 min
- Manual hygiene lid margin treatment (e.g. Blephex) upper and lower lid
- Manual expression of meibomian glands with special fórceps upper and lower lid

2. Tixel

Along the lid margin next to each other 5-6 impulses directly below/above lid margin, second parallel row of 5-6 impulses adjacent to the first line – Tixel parameters 8ms/400µm
2-3 treatments every 2 weeks, if necessary repeat expression before second and third treatment

No Blepharitis, visible obstruction of Meibomian gland ducts

- Clean Lid
- Tixel

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Dr. Ludger Hanneken,

Medical Director of Vallmedic Vision & Aesthetic



Highly specialized in refractive surgery with more than 20 years of experience and more than 30,000 procedures. Internationally referenced in cataract surgery, vision

correction (myopia, hyperopia and astigmatism) as well as in the use of the latest techniques for the definitive solution of eyestrain.

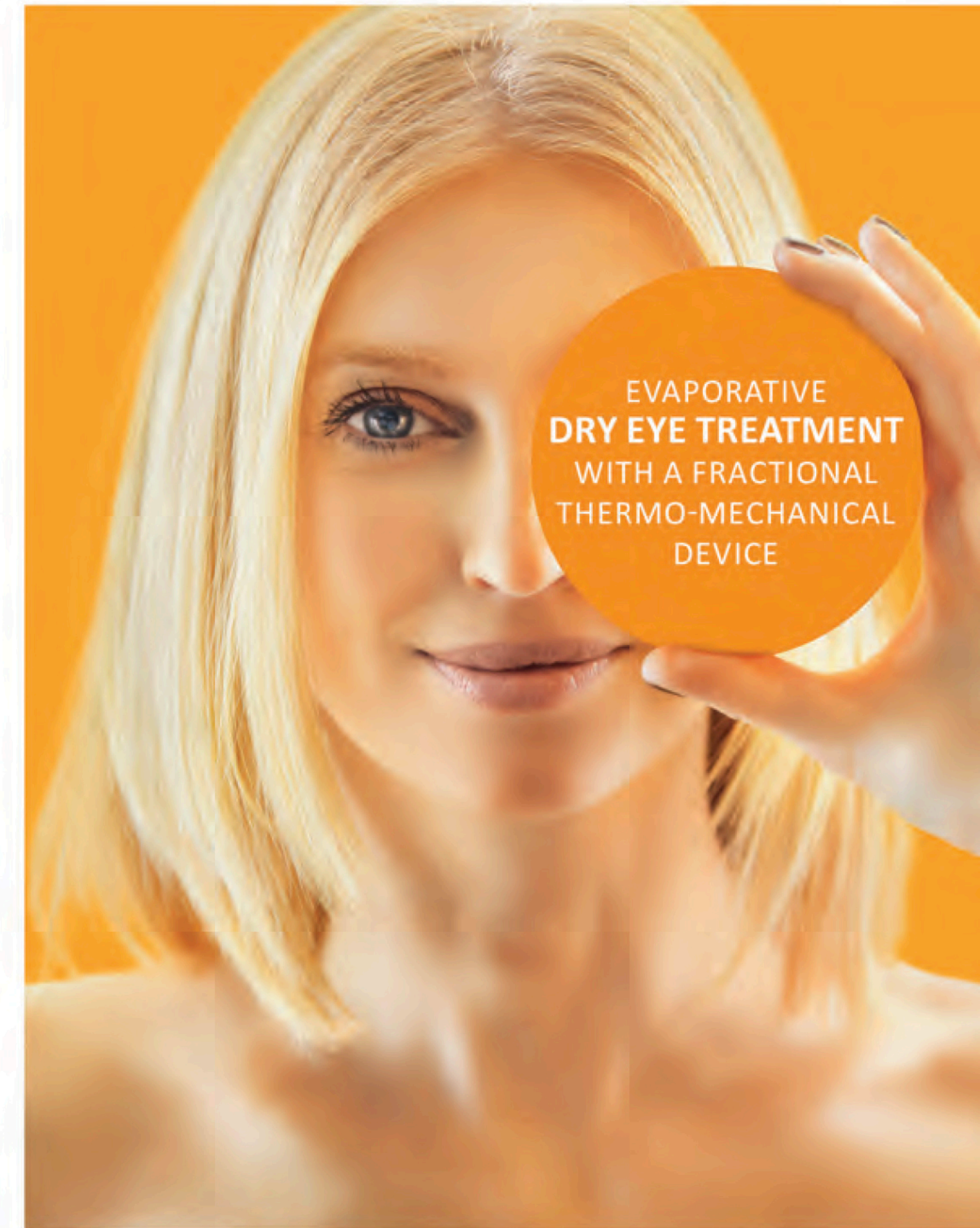
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A COMPLETELY NOVEL WAY OF TREATING DRY EYE

Purpose: TIXEL® is a fractional skin rejuvenation system. The purpose of the study is to investigate the impact of TIXEL® treatment to eyelids in improving dry eye signs and symptoms.

Methods: A prospective controlled study was conducted on 77 individuals who were treated with Tixel at Vallmedic Vision in Andorra.

At the baseline visit, participants were thoroughly screened with comprehensive ophthalmic examination followed by the assessment of bilateral Non-invasive Tear-film Break Up Time (NIBUT) and OSDI questionnaires. This was followed by three treatments, each at two weeks interval.

Participants were seen after 2 weeks of each treatment and ocular dryness signs and symptoms were assessed.

Results: Significant improvement ($P < 0.05$) in the dry eye signs and symptoms were observed after treatment which is characterized by an increase in NIBUT and improvement in OSDI scores.

After first and second treatment, improvement of average NIBUT was observed in 86.5% and 93.0% participants respectively.



A similar trend was observed with OSDI scores which showed 77.1% and 78.0% improvement respectively.

Treatment particularly improved symptoms for 36.0% severe and 13.1% moderate dry eye after first treatment, and 25.0% severe and 22.2% moderate dry eye participants after second treatment.

Apart from light and superficial transient skin irritation no side effects have been noticed.

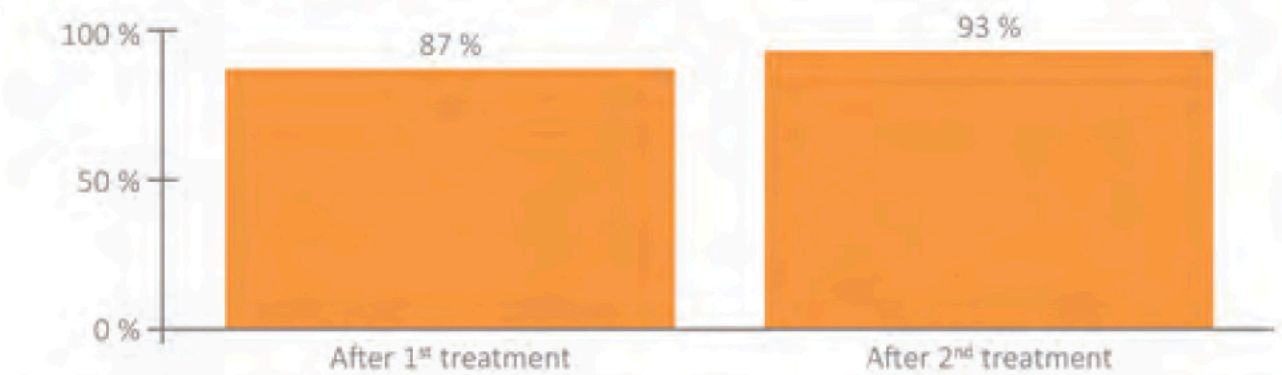
Treatment Advantages

- Quick - less than 1 minute per eye
- Safe - no emitted radiation
 - low energy levels
 - eye shields not required
- Low pain

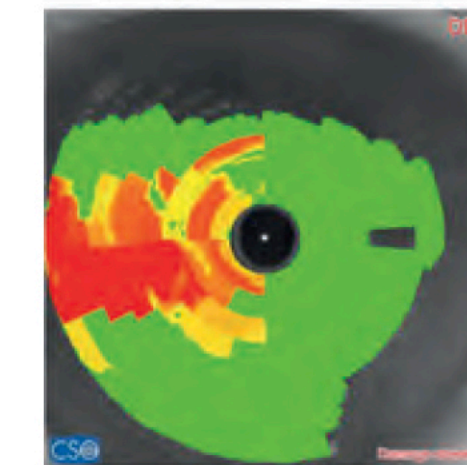
IMPROVEMENT OF NIBUT & OSDI AFTER TIXEL®

Study results: „A completely novel way of treating dry eye with Tixel“

Improvement of NIBUT after treatment $P < 0.05$



Before treatment



Non invasive first Breakup time (NIF-BUT): 1,2 sec

Non invasive average Breakup time (NIAvg-BUT): 8,5 sec

After 2 treatments



Non invasive first Breakup time Tearfilm not damaged

Non invasive average Breakup time Tearfilm not damaged

Improvement of OSDI-results after treatment (% of patients)

