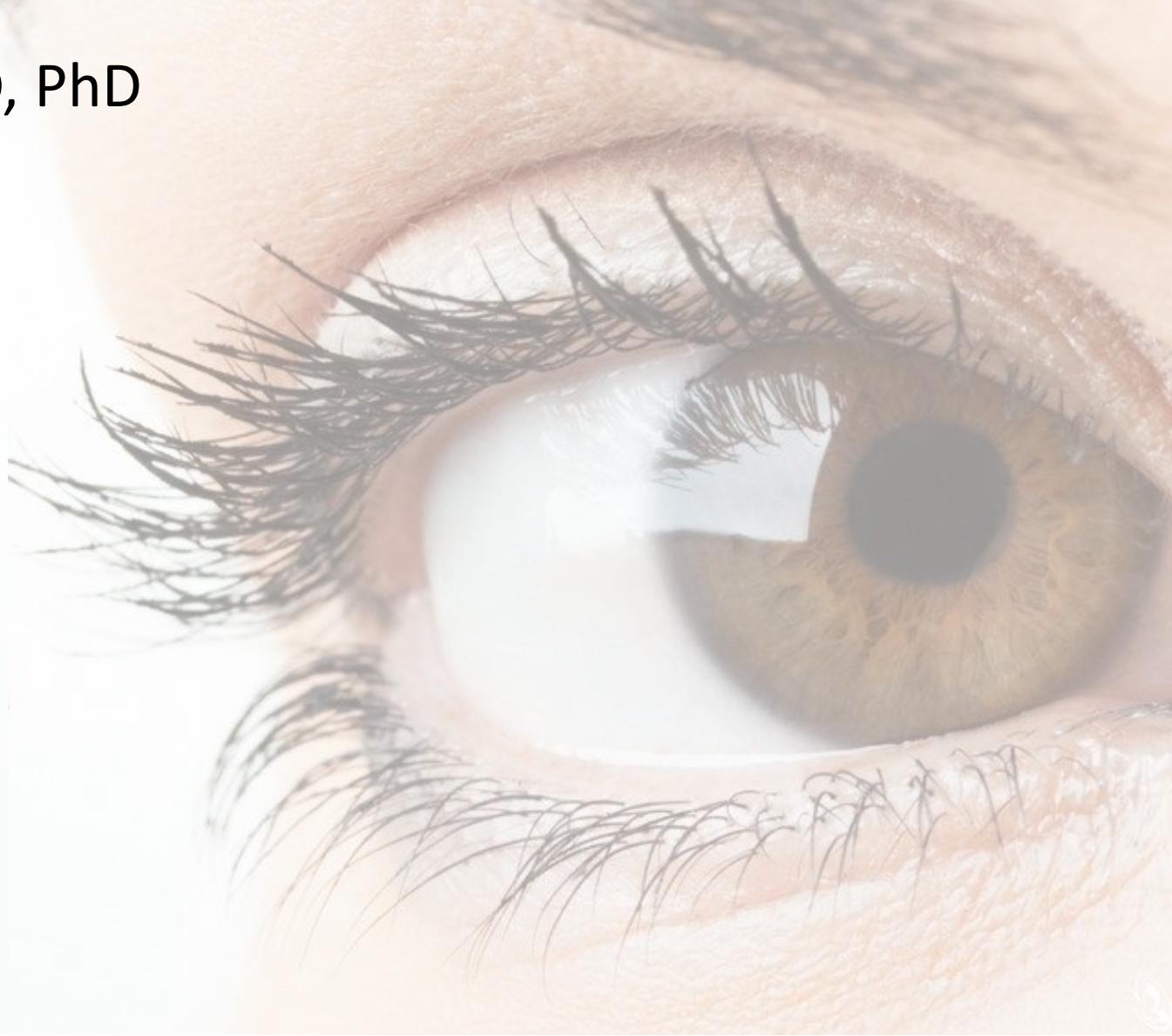


EYETRONIC® - Restoring Vision in Glaucoma

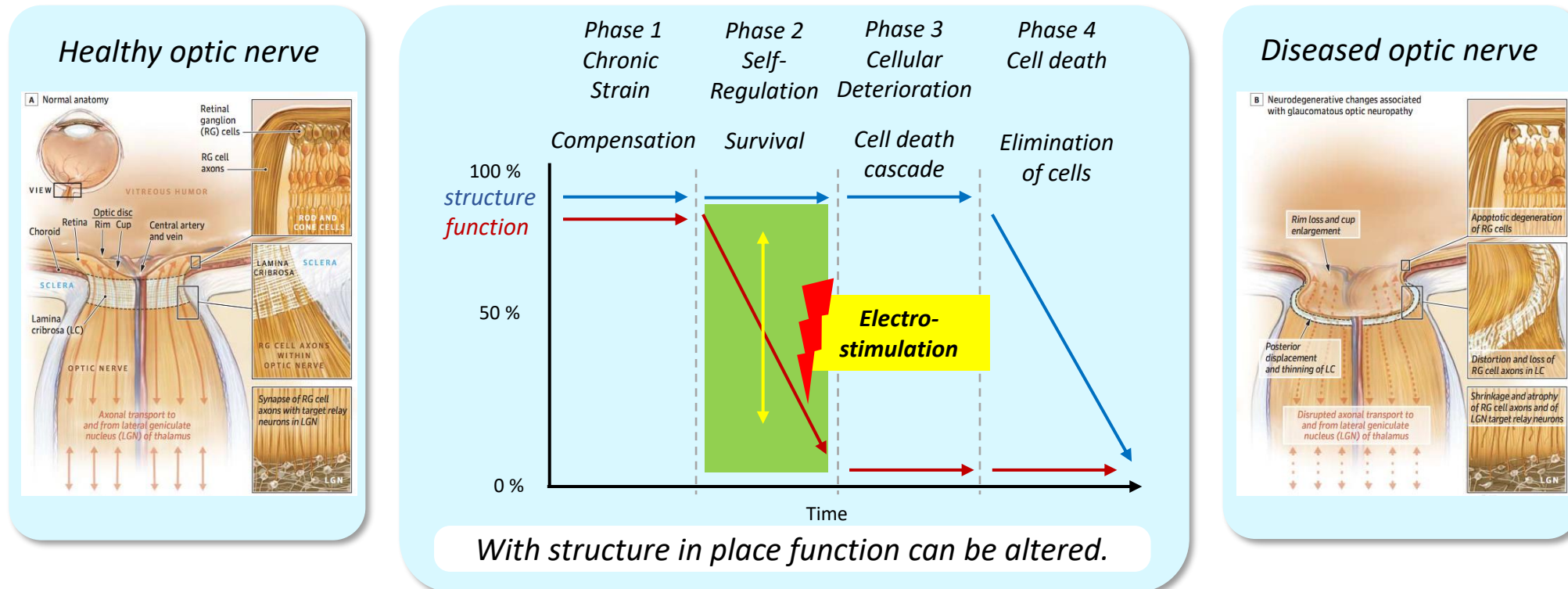
Workshop Glaucoma, Carl Erb, MD, PhD
21th of January 2023



Glaukom - a neuropathy of the optic nerve

Treatment of VF loss in Glaucoma focus on the neuropathy of the optic nerve

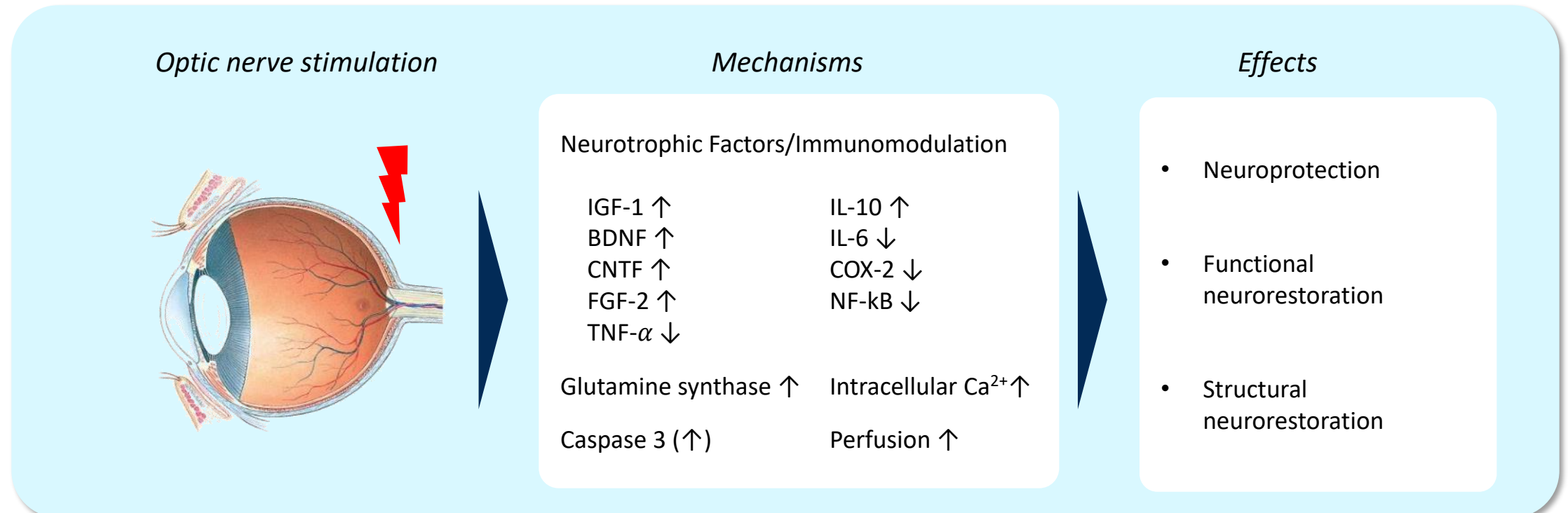
- Retinal ganglion cells and nerve fibers are damaged by factors that terminate cellular metabolism.
- This leads to inactivity of the nerve cells so that their function – and Visual Field (VF) – are lost.
- Subsequently, nerve cells die causing deterioration of the optic nerve.



Optic Nerve Stimulation - Mechanism of Action

Preclinical evidence of three effects of electrical stimulation of the optic nerve

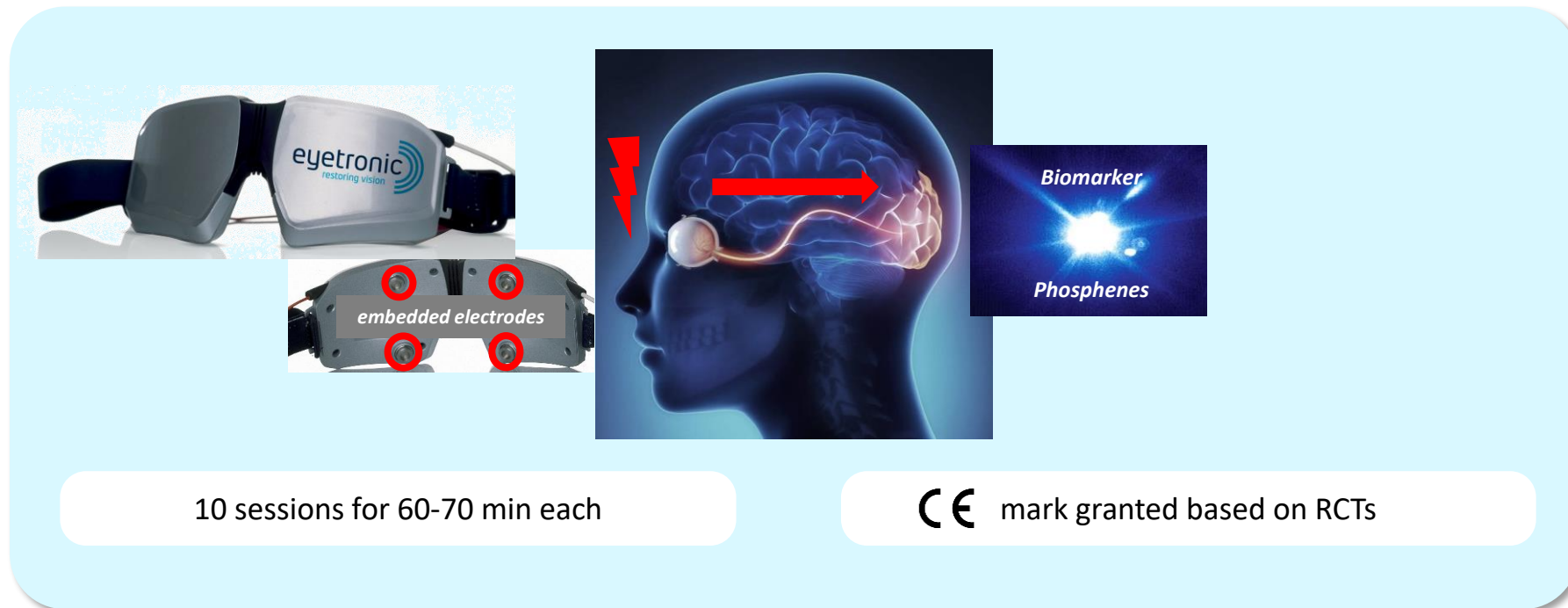
- Reactivation of nerve cells prevent further deterioration: Neuroprotection.
- Reactivation of the function / metabolism: Functional neurorestoration.
- Degenerated nerve fibers sprout and restore: Structural neurorestoration.



Optic Nerve Stimulation in patients with EYETRONIC®

External electrical stimulation reactivates inactive optic nerve cells

- Both eyes are treated non-invasively via stimulation goggles with four embedded electrodes.
- Neuronal signals are transmitted from the retina along the optic nerve to the visual cortex causing phosphenes.
- This biomarker confirms that the current reaches the visual center in the cerebral cortex.



EYETRONIC® - effectiveness in clinical routine use

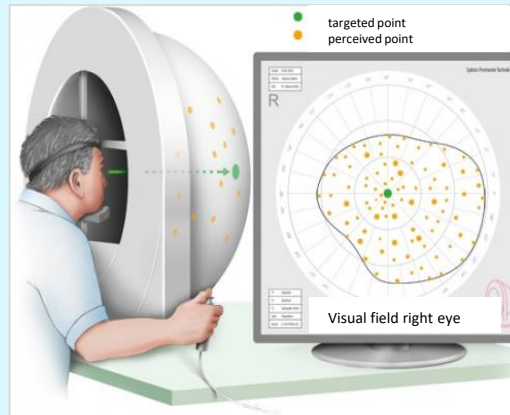
700 patients treated in outpatient setting

- 1,400 eyes have been treated in 7,000 individual session without a single Serious Adverse Event (SAE).
- Diagnosis of visual field (VF) loss with standard-of-care perimetry – no new diagnostic method.
- 11 therapy centers in Germany, Italy and Switzerland.

Treatment: EYETRONIC®

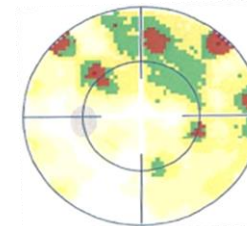


Diagnosis: Standard Perimetry



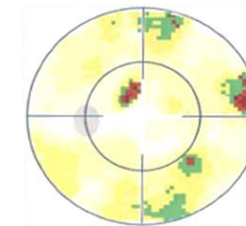
Outcome: Improved Visual Field

*Before
treatment*



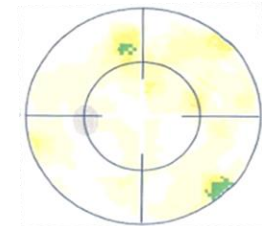
8.2 dB

*12 days post
treatment*



7.3 dB

*3 months post
treatment*



4.5 dB

Publication of 12 month long-term EYETRONIC® data

Erb et al. Bioelectronic Medicine (2022) 8:6
<https://doi.org/10.1186/s42234-022-00089-9>

Bioelectronic Medicine

RESEARCH ARTICLE

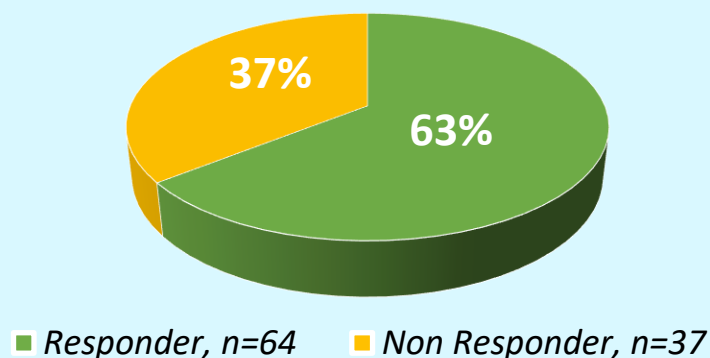
Open Access

Electrical neurostimulation in glaucoma with progressive vision loss

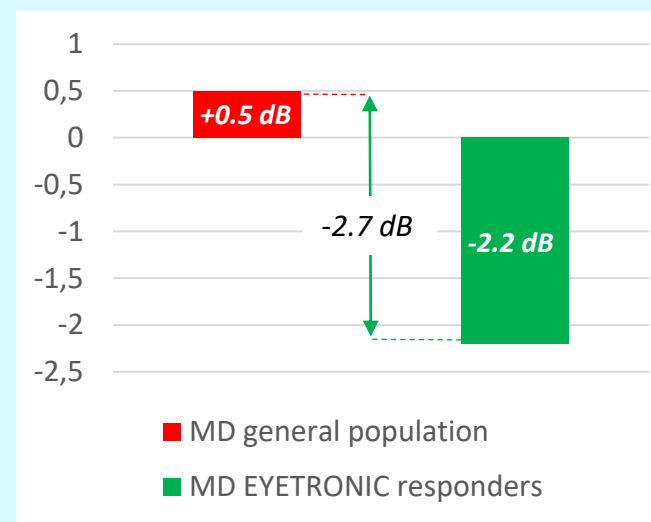
Carl Erb¹, Sophie Eckert², Pia Gindorf¹, Martin Köhler³, Thomas Köhler³, Lukas Neuhaus⁴, Thomas Neuhaus⁴, Nadja Salzmann³, Stefanie Schmickler⁵ and Jens Ellrich^{6*}



Treated eyes (n=101)



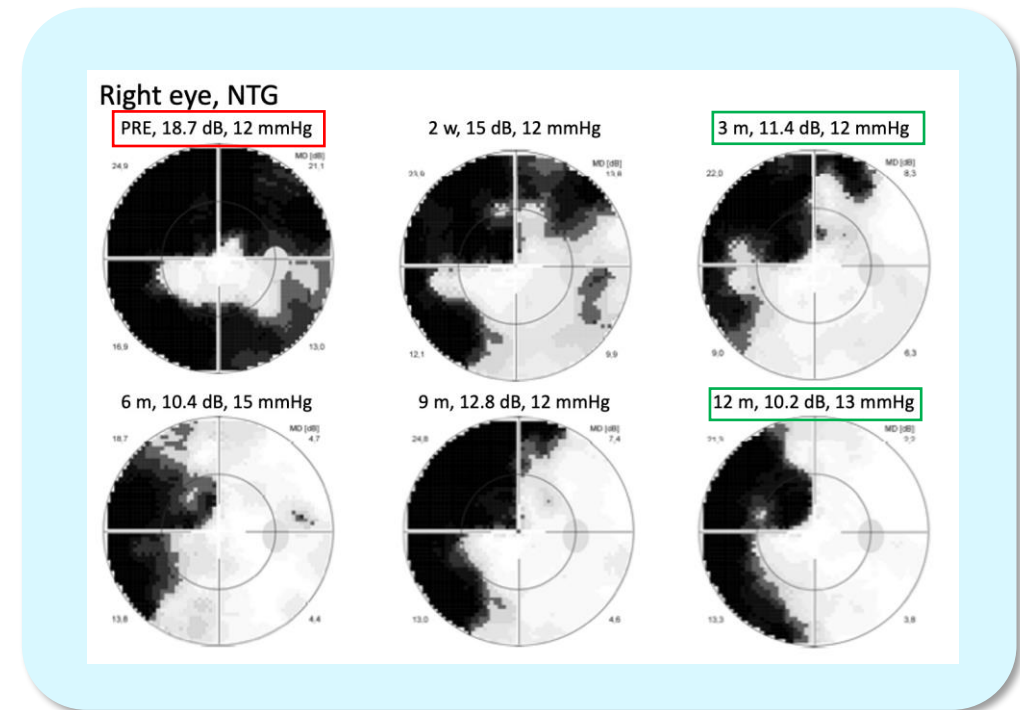
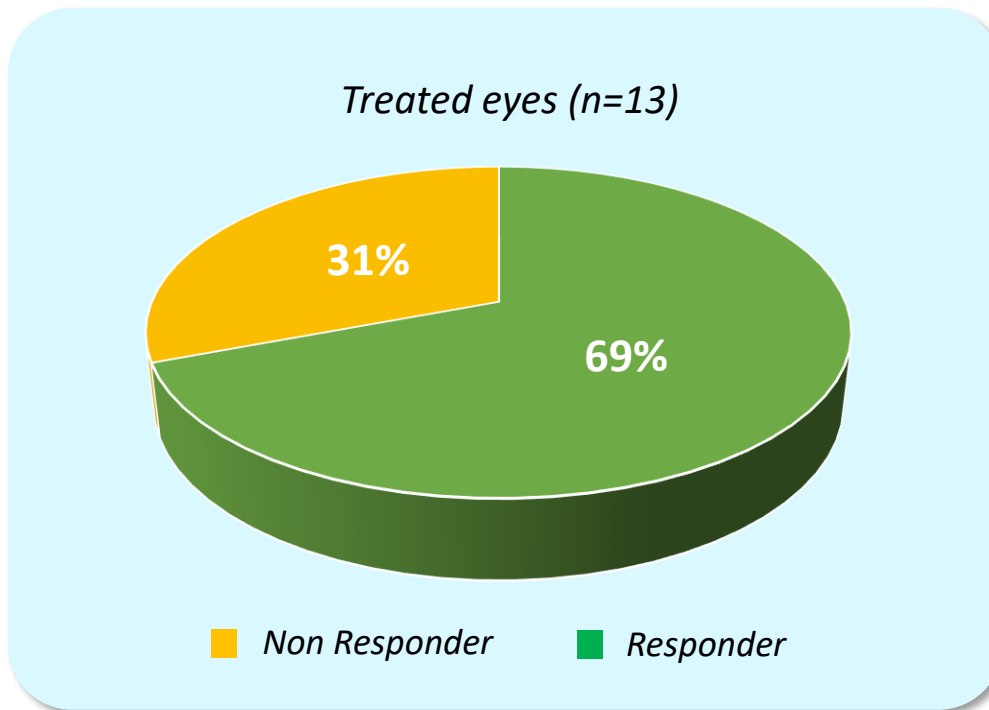
Trend reversal of the MD value after 12 month



- All Patients had continued visual field (VF) loss despite being treated with SoC for elevated IOP.
- Halt in disease progression observed in 64 of 101 eyes treated (63%), partial visual field restoration in 60 eyes (59%)

12 month long-term data confirm efficacy of EYETRONIC® also for normal tension glaucoma (NTG) patients

- For 69% no further progression of the visual field loss.
- Significant improvements after 3 month.



With the AddVision Group we have renowned partner with 200 employees on our side for the commercial activities.



Feel free to contact our colleagues in Germany and Switzerland!

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