

Evaluation of video imaging technology during visual field perimetry

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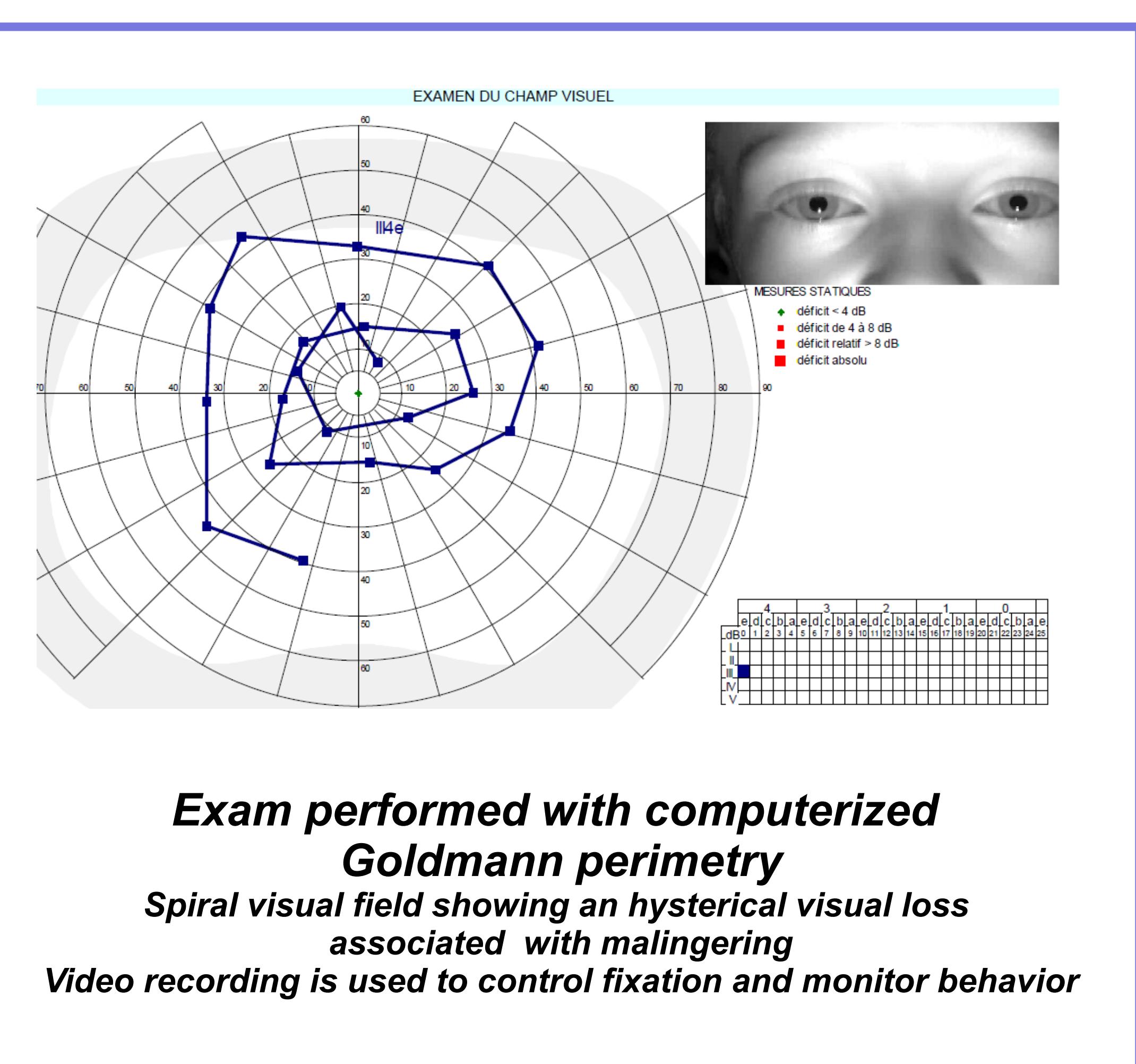
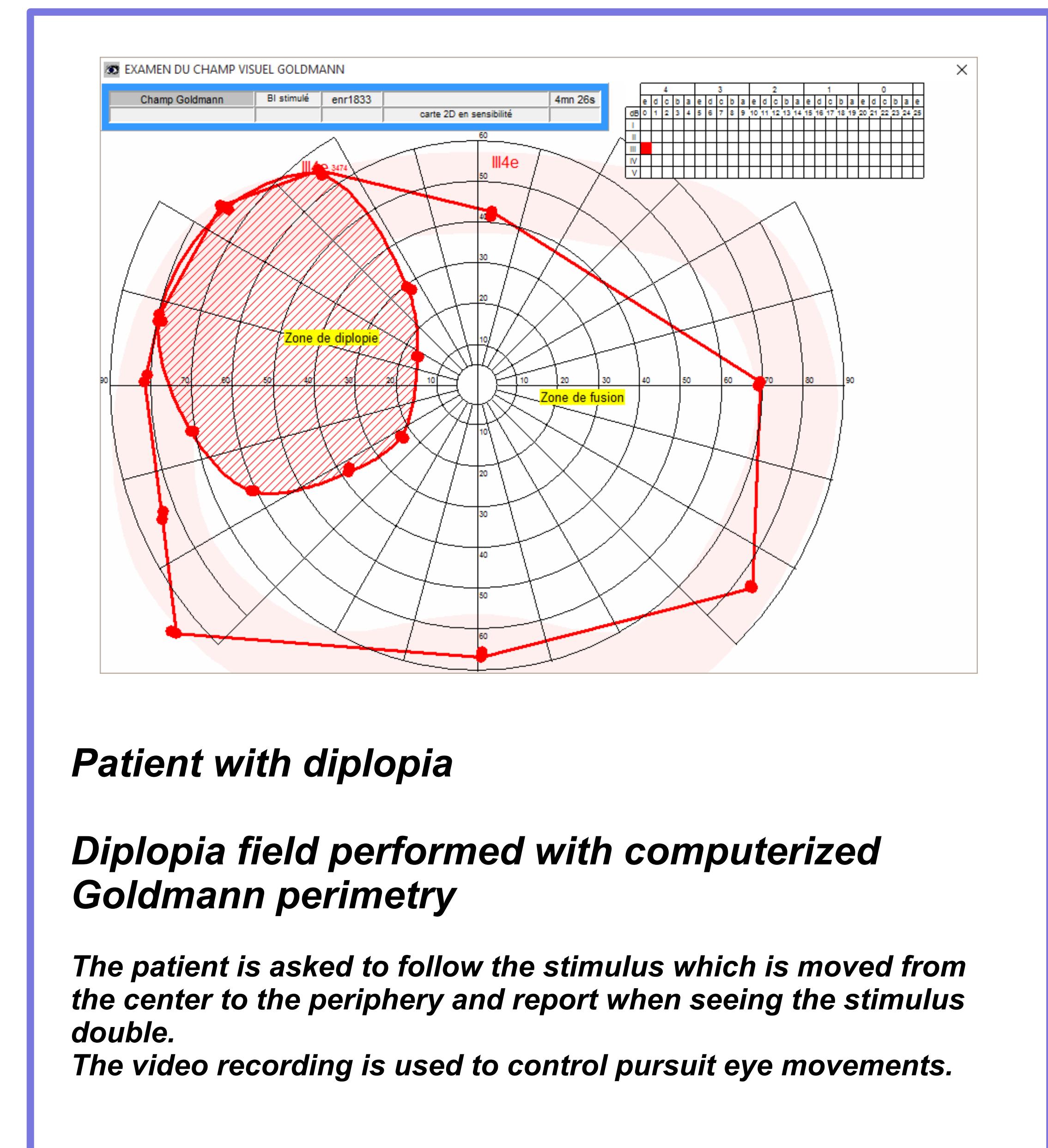
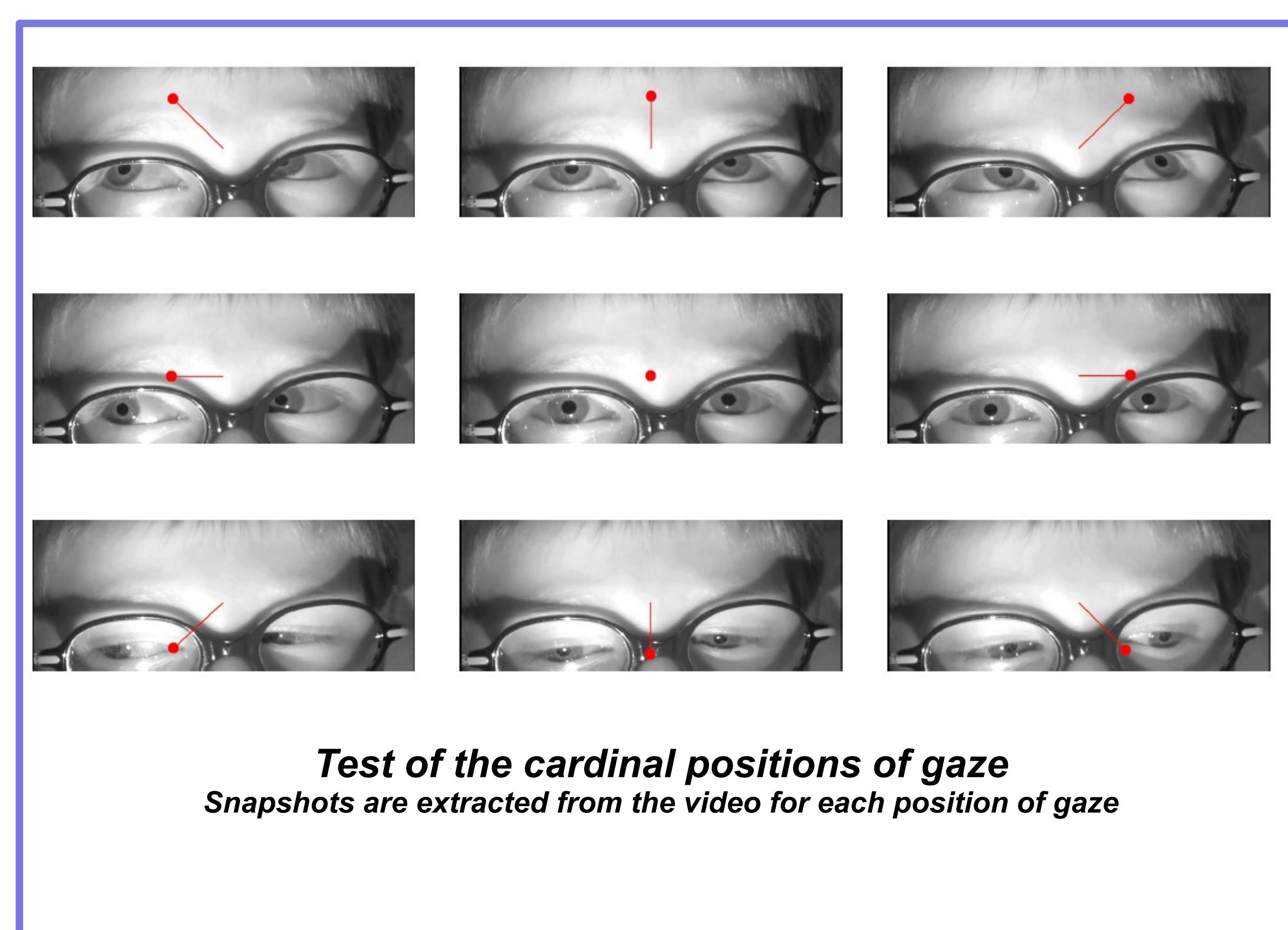
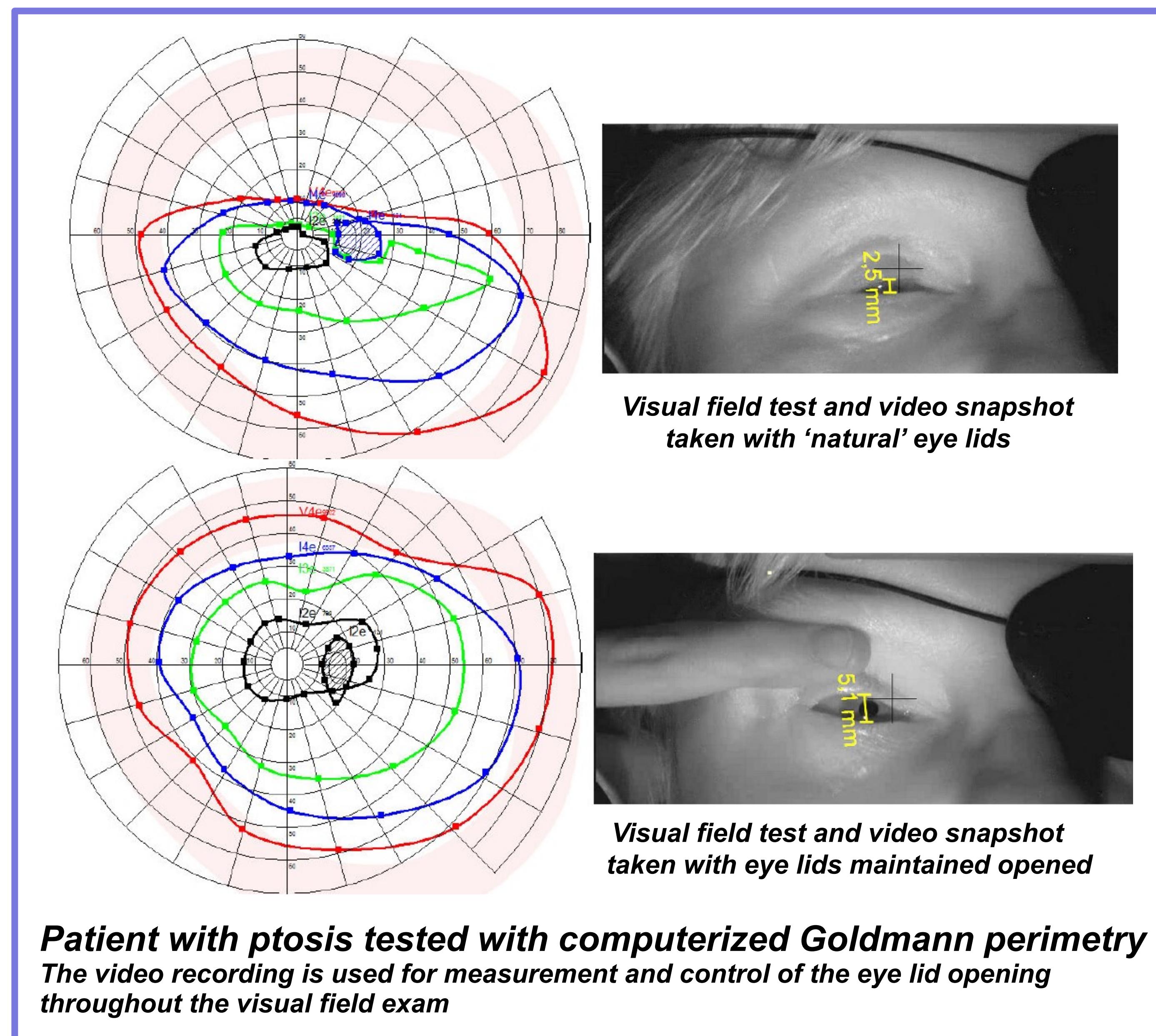
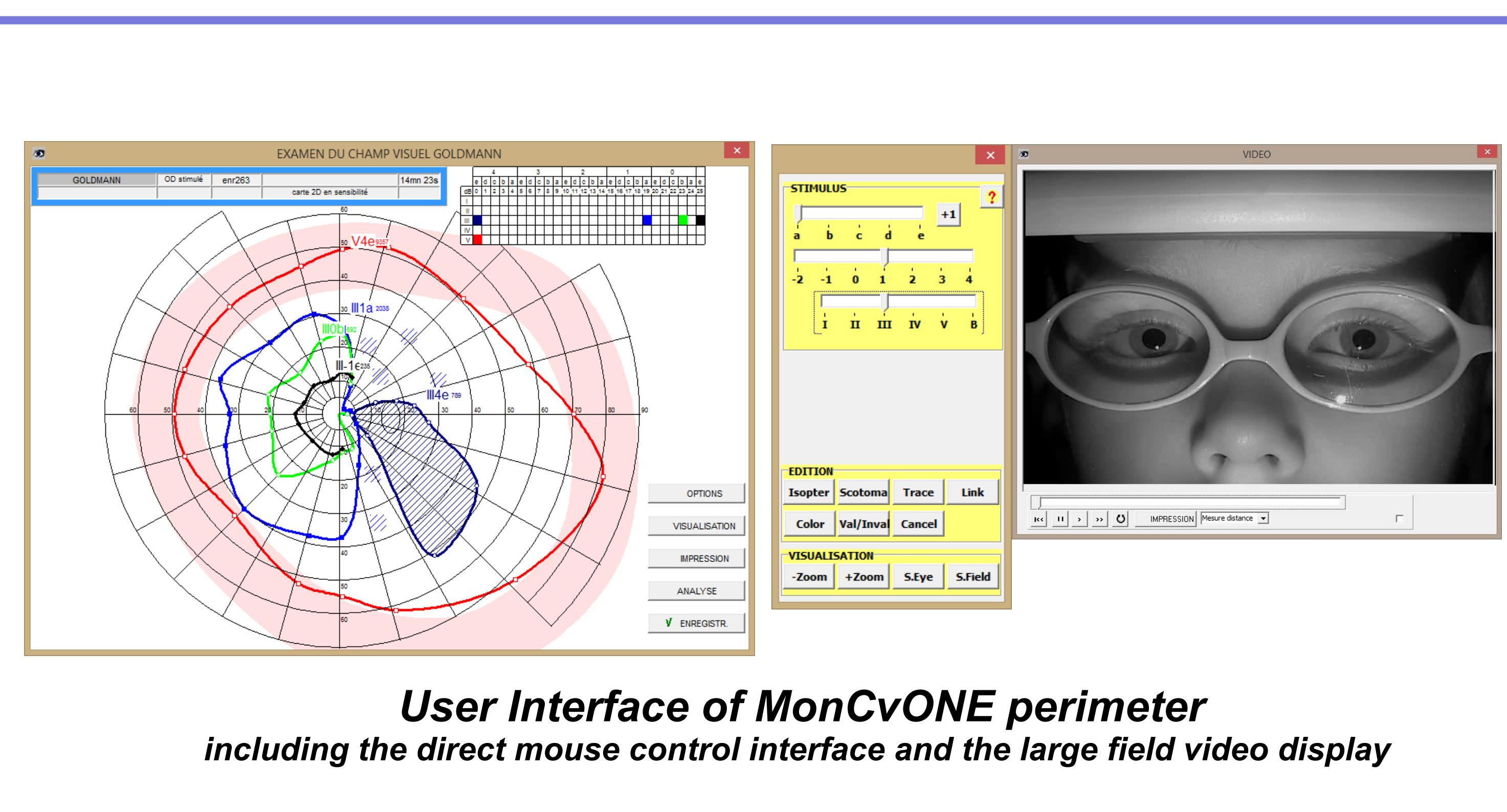
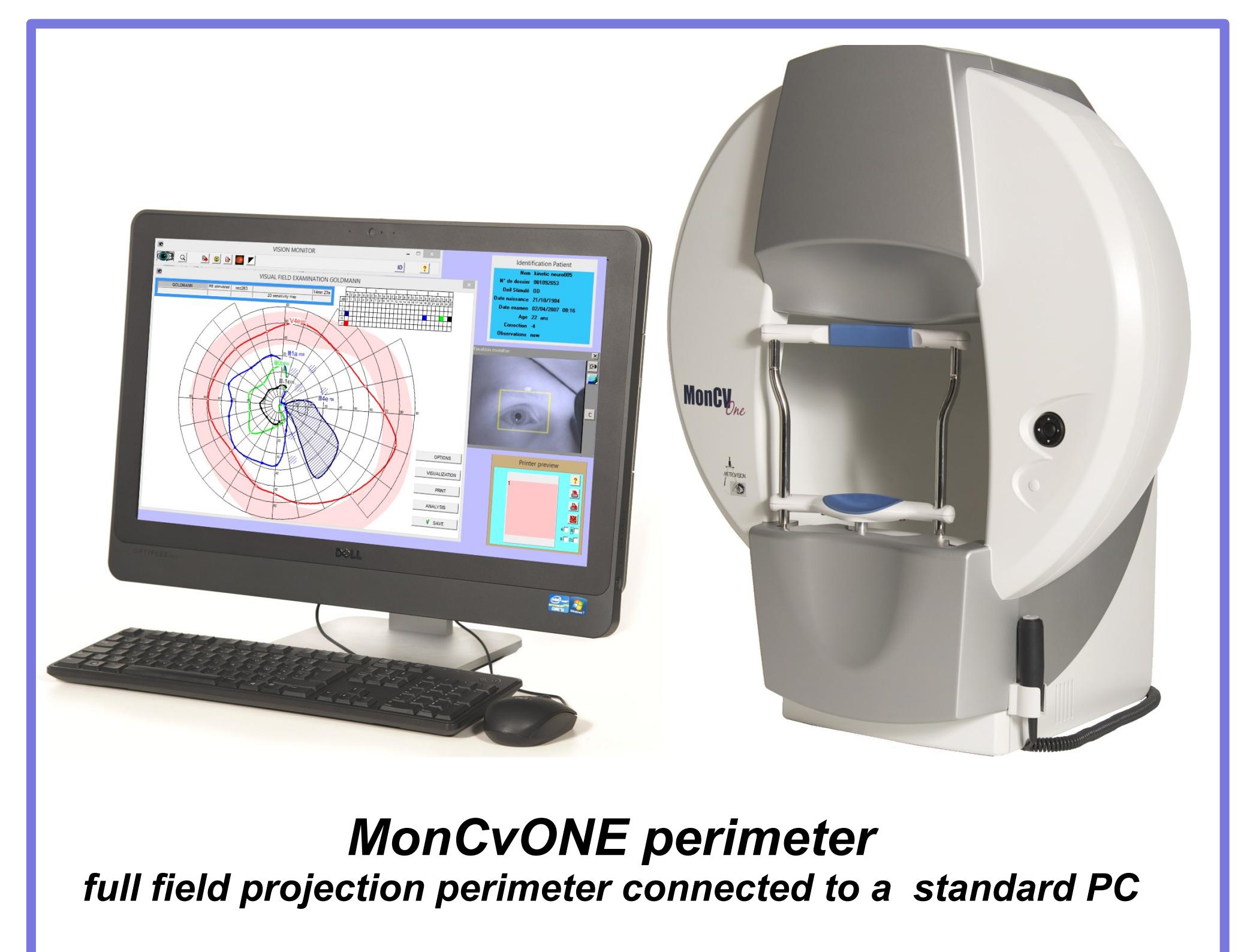
Purpose

Video imaging consists in recording the entire visual field process in synchrony with the video of the patient's head. Several clinical applications have been investigated to evaluate the clinical usefulness of this new technology.

Methods

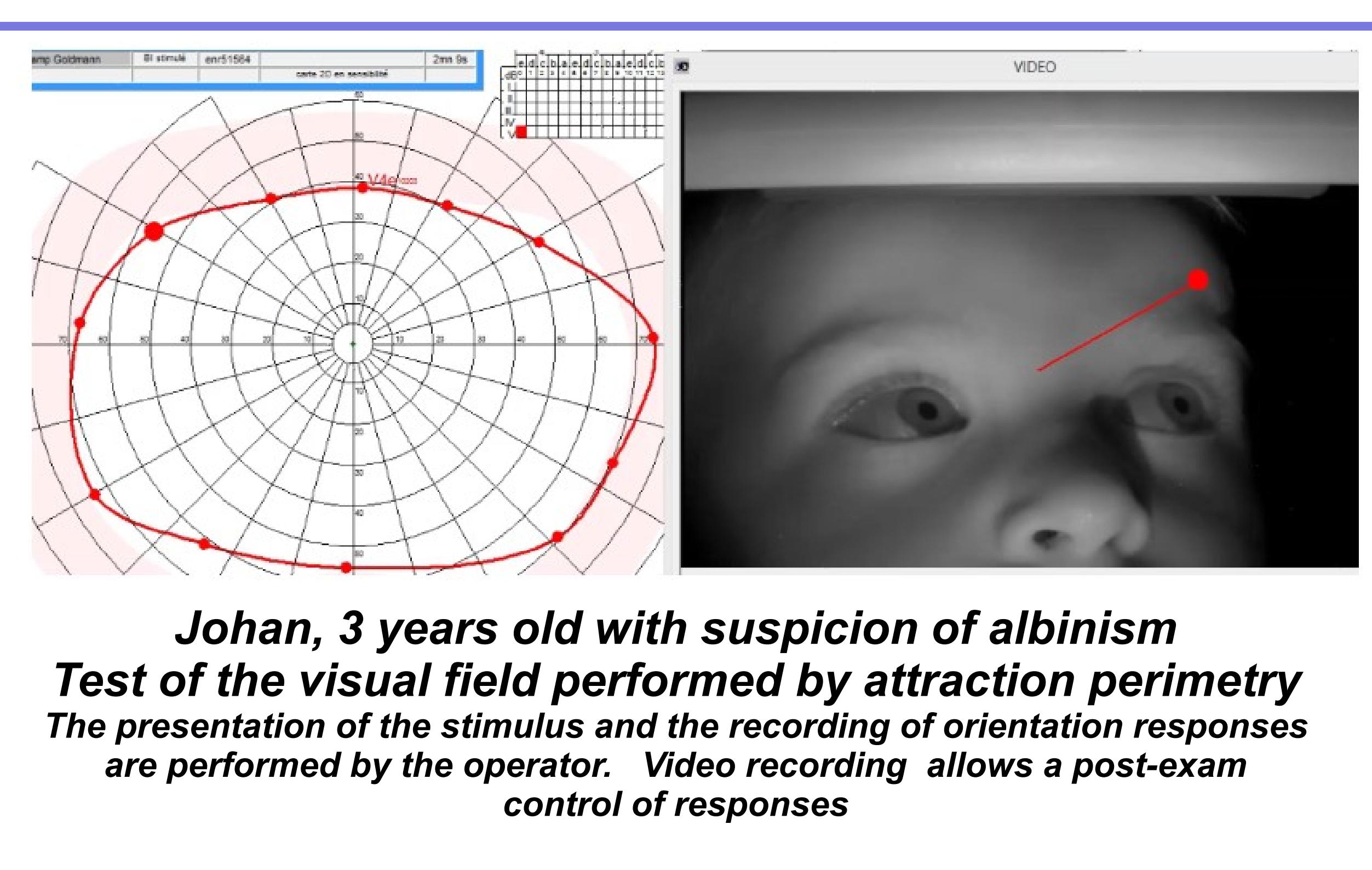
The study included results from 48 visual field exams performed on a MonCvONE™ full field projection perimeter with synchronized video recording (Metrovision, Pérenchies, France).

The video from a large viewing field (binocular) camera was recorded in synchrony with the position of the visual stimulus, with other test parameters such as luminance and size and with the patient's response obtained from the patient's press button or from the operator judgment. The study included patients who were unable to perform automated perimetry due to young age or handicap, patients with abnormal eye movements, head posture or ptosis and controls performed after automated perimetry.



Results

Video recording was extremely useful in the majority of clinical cases. 24 exams were performed on young children (age between 2 and 5 years) using attraction perimetry. The eye orientation responses could be interpreted and validated after the exam. In other cases, the video recording facilitated the interpretation and documentation of visual field results with the inclusion of video snapshots in the examination report. Additional applications included the recording of cardinal eye gaze positions and of the fusion visual field



Conclusions

Synchronized video imaging performed during visual field exams is a clinically useful tool for the examination of patients who cannot perform automated perimetry and for the documentation of artefacts and situations such as ptosis, abnormal eye movements, abnormal head posture and incorrect position of refraction correction.

Author Disclosure Block

J.R. Charlier, Metrovision P.; X. Zanlonghi, None, S. Defoort-Dhellemmes, None;

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