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“Evaluation of fixation stability in patients before and after cataract surgery; preliminary results”

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Rui Chiara: CenterVue.

Purpose:

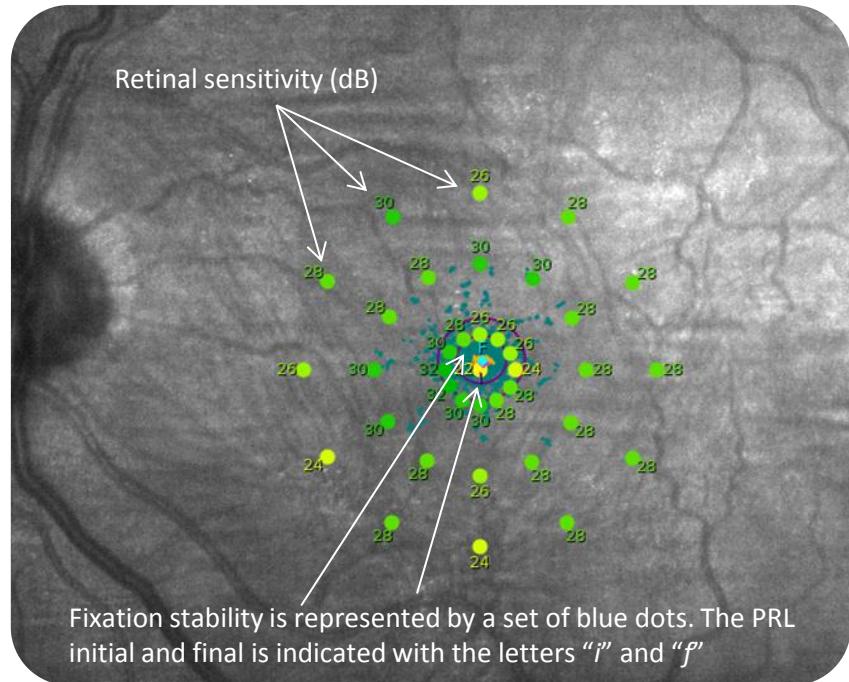
To evaluate the benefit of fixation analysis with MAIA microperimetry in patients scheduled for cataract surgery with unknown macular abnormalities before and after cataract removal.

Methods :

➤ SLO-microperimetry examination (MAIA, Centervue) was conducted in 13 patients before, 1 week, and 1 month after cataract surgery.

➤ Microperimetry calculates

- retinal sensitivity,
- fixation stability, and
- the locus of fixation (PRL).

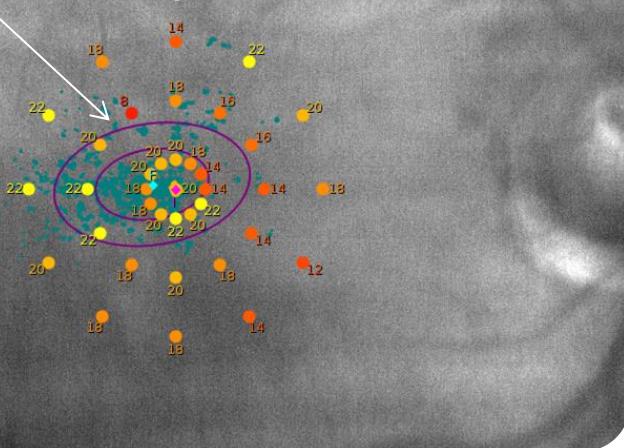


Results :

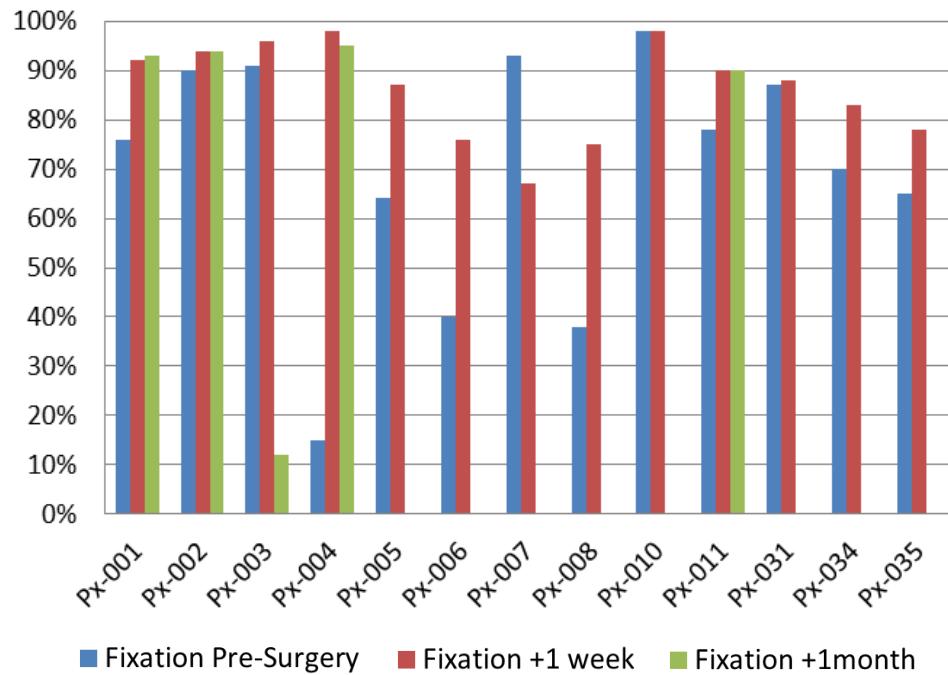
As expected, all patients demonstrated an increase in their mean macular sensitivity after the surgery. Cataract grade was 2+ or 3+ in all patients. Before cataract surgery, 10 eyes were categorized as fixation stable, 1 (Pt 8) as relatively stable and 2 (Pt 4 and Pt 6) as unstable fixation. After the surgery, all 3 patients with unstable fixation increased their fixation to stable. However 1 case (Pt 3) demonstrated an increase in fixation stability 1 week postoperative but stability decreased considerably at 1 month postoperative.

Fixation Stability in Px with Cataract:

The ellipse indicates the extension of the retinal area used during fixation



Patient before surgery showing decrease sensitivity (red stimuli) on the nasal macula and unstable fixation with PRL in the temporal macula.



Conclusions :

Even though the increase in macular sensitivity and fixation stability after cataract removal was not unexpected; the cases with increased fixation behavior 1 week after surgery, followed by a decreased stability 1 month after surgery were unexpected; we theorize that these patients may have developed cystoid macular edema.

These are the preliminary results from our clinical practice as part of a multicenter study aimed to evaluate macular function before and after cataract surgery with SLO-Microperimetry in 300 patients.