



DORC EVA NEXUS showed favourable trends in safety markers compared with DORC EVA, while demonstrating similar efficiency and visual outcomes.

Comparative assessment of the DORC EVA NEXUS and DORC EVA phacoemulsification systems

SOURCE



Title
EVA NEXUS-Phaco performance study



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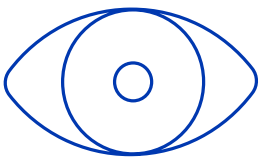
Publication
[EVA NEXUS-Phaco performance study](#)
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METHODOLOGY & SETUP



Setting

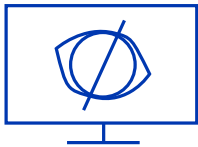
Single-centre, prospective, paired-eye study; single surgeon



Sample size

20 patients | 40 eyes total | 20 eyes per arm
LOCS grade 1–3 only; no accompanying eye disease
Standard, uncomplicated cataract cases only

One eye: EVA NEXUS intervention (n=20)
Fellow eye EVA control (n=20)
Same surgeon for both eyes (W. Mayer)



Setup

- DORC EVA NEXUS
- DORC EVA



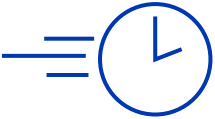
Main Evaluation Criteria

- Intraoperative efficiency: EPT, BSS flow, total surgery time
- Inflammation markers: Aqueous PG A.C. (Prostaglandin E2 Anterior Chamber) and Anterior chamber flare
- Endothelial cell loss
- Visual and refractive outcomes: CDVA, spherical equivalent and cylinder
- Timepoints: preop · day 1 · week 1 · month 3

Methodology

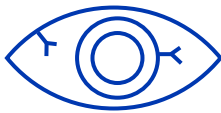
- Standard surgical steps performed identically in both arms
- **DORC EVA NEXUS arm:** phaco performed using the EVA NEXUS system with VacuFlow VTi fluidics
- **DORC EVA arm:** phaco performed using the EVA system, same surgical technique and settings, on the fellow eye of the same patient

RESULTS AND OBSERVATIONS



INTRAOPERATIVE EFFICIENCY
Surgery time 1.42 minutes faster with EVA NEXUS*

DORC EVA NEXUS | DORC EVA
11.63 min | 13.05 min



INFLAMMATION
Lower inflammatory markers with EVA NEXUS

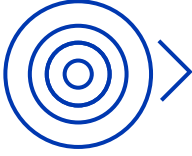
DORC EVA NEXUS | DORC EVA
PG A.C. · 1 min
24.60 pg/mL | 47.24 pg/mL

Anterior Chamber Flare · month 3:
11.04 photon count/ms | 15.78 photon count/ms



ENDOTHELIAL PROTECTION
19% less endothelial cell loss with EVA NEXUS

DORC EVA NEXUS | DORC EVA
Endothelial cell loss · month 3:
170 cells/mm² | 210 cells/mm²



VISUAL & REFRACTIVE OUTCOMES
No complications in either group across all 40 eyes.

CDVA, spherical equivalent and cylinder were similar at every timepoint.

Author's Comments

"We believe that especially in more difficult cases, such as **mature cataracts, patients with a shallow anterior chamber, zonular weakness or other abnormalities the EVA NEXUS can show off its advantages**. As it is usually more difficult in these cases to maintain an anterior chamber stability, EVA NEXUS might have the potential to further lower the risk for complications like corneal edema due to endothelial cell damage or capsular ".