Study Spotlight: Effective and safe lens extraction with ZEISS MICOR 700

Seeing beyond

Reporting on surgical experience and learning curve for a finger-controlled, non-ultrasound lens extractor device.

Source

Title
Finger-Controlled Nonultrasonic Lens Extractor

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Methodology & Setup

Device tested

All surgeries were performed with the MICOR® 700 lens extractor by ZEISS by a single experienced physician.

Sample size

61 eyes of 51 individuals with cataract.

Evaluation Criteria

- Nuclear density was graded preoperatively.
- Corrected distance visual acuity (CDVA), intraocular pressure (IOP) and pachymetry were evaluated pre- and postoperatively.
- Intraoperative data included active surgical procedure time, as well as the duration of each surgical step individually (nuclear removal, cortex removal and viscoelastic removal).

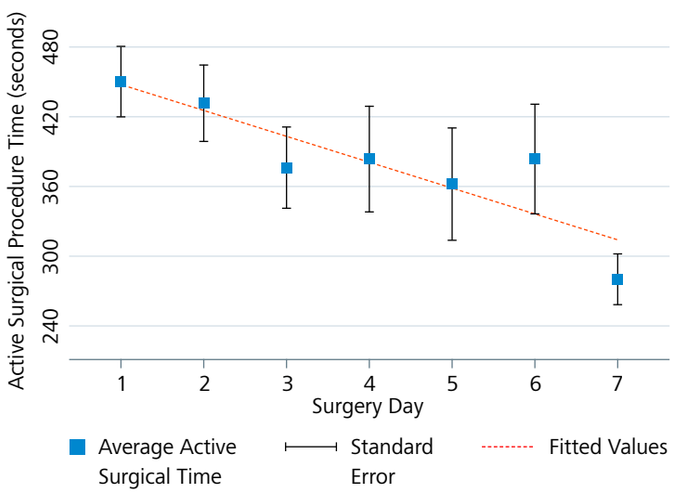
Results and observations

ZEISS MICOR 700 lens extractor is an effective and safe device for cataract extraction.

Fast learning curve

With ZEISS MICOR 700: a consistently significant decrease in surgical time was observed at each surgical day, even over a short experience period.

Average Time



Significantly reduces fluid used

ZEISS MICOR 700
27.1 ml (Avg.)

Vs

U/S Phaco
50-200 ml

Workflow efficiency

- ZEISS MICOR 700 setup was easily comprehensible and intuitive, for both the surgeon and staff.
- ZEISS MICOR 700 extractor can be swiftly replaced between cases to reduce setup, breakdown and sterilizing time.

Additional author's opinion…

Blunt tip provides safety

ZEISS MICOR 700 blunt tip design protects the iris and posterior capsule in cases of inadvertent contact with the probe. Notably, the anterior chamber remained extremely stable throughout lens extraction and cortex removal.

Ultrasound Free

ZEISS MICOR 700 potentially minimizes the risk of tissue damage from cavitation and heat rise associated with ultrasound phacoemulsification.

Portability

The device's portability is promising alternative to traditional phacoemulsification, potentially increasing accessibility and reducing socioeconomic barriers to cataract surgery.

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