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Service (sector) Cataract

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(Comitê de Ética em Pesquisa da Universidade Federal de São Paulo – UNIFESP)

## WAVEFRONT ANALYSIS OF ACRYSOF® TORIC IOL

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**PURPOSE**: To compare visual performance, total and high order wavefront aberrations (coma, spherical aberration, and other terms) and contrast sensitivity in eyes implanted with monofocal spherical intraocular lens (IOL) or toric spherical IOL.

**METHODS**: Randomized prospective study.Ninety patients will be randomized to receive two IOL types: Alcon AcrySof® Natural (45 eyes) or AcrySof® Toric (45 eyes). Complete ophthalmologic examination including uncorrected visual acuity (UCVA), best-spectacle corrected visual acuity (BSCVA), corneal topography, and wavefront analysis were performed preoperatively, 30 days, and 90 days postoperatively. Pelli-Robson chart test and functional acuity contrast testing were performed approximately 60 days after surgery.

**RESULTS**: So far 36 eyes were included with 30 days of follow up. The preliminary results showed that total and high order wavefront aberrations  $(1.29\pm0.4 \text{ and } 0.38\pm0.2 \text{ in the AcrySof}$ ® Toric and  $1.11\pm0.38 \text{ and } 0.48\pm0.18 \text{ in the AcrySof}$ ® Natural, respectively) analyzed 30 days after the surgeries were similar in both IOLs. Full results will be presented.

**CONCLUSION:** The Acrysof® toric IOL seems to promote astigmatism correction without inducing more wavefront aberration than a regular spherical IOL.