

<http://www.ascrs.org/Meetings/abstract-search-results.cfm?id=16644>

**Categories:** P1 Cataract

**Author:** Aneglika Lindenschmid, MD

**Number:** 299897

**Year:** 2007

**Title:** **Contrast Sensitivity with Human Optics Aspheric MC X11 ASP and Spheric MC 611 MI IOLs**

**Contributing Authors:** Lindenschmid, Aneglika; Kuchle, Michael; Spath, Tina; Hammer, Peter; Winkler von Mohrenfels, Christoph

**Purpose:** To improve the quality of vision after cataract surgery a new generation of lenses are using aspheric lens profiles. Aim of this study was to compare the performance of the new aspheric Human Optics MC X11 ASP with the MC 611 MI.

**Methods:** In 50 patients cataract surgery was randomly performed with implantation of an aspherical IOL (HumanOptics MC X11 ASP) in one eye and compared with a spherical IOL implantation (HumanOptics MC 611 MI) in the contra lateral eye. Preoperatively and 3 months postoperatively the best visual acuity, refraction, topography, Peilli Robson chart and Optec 6500 contrast sensitivity have been performed

**Results:** All cataract surgeries have been performed without any complications. 3 months after surgery all patients had a good visual acuity. There was no difference in both groups with an average of 20/20. Most of the patients preferred the eye with the aspheric lens and reported of a better contrast with the aspheric lens. Subjectively the patients reported of a better contrast with the aspheric lens. The eyes with the aspheric lens recognized the first 10,3 frequencies and the spheric IOL the first 9,6 frequencies of the Pelli Robson chart. The optec 6500 test was also better in the aspheric lenses. As well in mesopic as in photopic conditions the aspheric lens performed better. This was most pronounced in mesopic conditions.

**Conclusion:** The aspheric MC X11 ASP improves significantly the higher order aberrations after cataract surgery. Most of the patients prefer the aspheric IOL due to an enhancement on contrast sensitivity for the patients. The aspheric seems to give advantages in daily dimmed light conditions such as driving by night and general mesopic light conditions.