

Jahn CE , Fromberg I , Fesser N, Allgoewer I , Jahn CH, Wakili NS, Hofmann-Rummelt CR , Holbach LM, Kampeter BA. Ophthalmic Res. 2006 Sep 15;38 (5):309-312: Further investigation of the tolerance and mechanical adjustability of the \*Acri.Tec AR-1 PC/IOL in rabbit eyes: an intraocular lens with reversibly adjustable optical power.

Purpose: To examine the tolerance and mechanical function of an adjustable intraocular lens (IOL) in rabbit eyes. Methods: Implantation of the \*Acri.Tec AR-1 PC/IOL into 14 rabbit eyes. Manipulation of the lens 8 weeks after implantation in order to change the refractive power. Follow-up for up to 5 months. Histopathologic examination of the eyes. Results: Implantation and mechanical adjustment of the PC/IOL were possible. Eyes healed normally. No difference between eyes containing the \*Acri.Tec AR-1 PC/IOL and eyes containing the control PC/IOL could be detected with respect to signs of inflammatory reaction, corneal transparency, intraocular pressure and histopathologic appearance. Histopathologic examination of the eyes showed that the \*Acri.Tec AR-1 PC/IOL did not cause any damage in rabbit eyes. Conclusion: The \*Acri.Tec AR-1 PC/IOL is well tolerated in rabbit eyes for extended periods of time, suggesting that this PC/IOL should be well tolerated in the long run. Surgical adjustment of the adjusting element can be performed with little effort several weeks after implantation. Copyright (c) 2006 S. Karger AG, Basel.