

#### **H-4.5a Controversy: Corneal laser treatment for presbyopia CONTRA**

Michael C. Knorz<sup>1</sup>

<sup>1</sup>Universität Heidelberg, Klinikum Mannheim GmbH

Corneal laser surgery can be used to correct presbyopia by inducing (negative) spherical aberration which increases depth of focus by about 1.5 D, thereby providing some intermediate vision. The downside of this approach is a significant decrease in quality of vision, which results in night vision problems, reduced patient satisfaction and loss of best-corrected visual acuity at distance and near. For example, following PresbyMAX LASIK, 15% of eyes lost two or more lines of best-corrected distance visual acuity (1). Following INTRACOR, 7.1% lost two or more lines of best-corrected distance visual acuity, 11.5% lost two or more lines of best-corrected near visual acuity, 19.6% were not satisfied, and 12.3% would not have INTRACOR again (2),

Because of the significant side-effects described above, the author does not recommend to use presbyopia-correcting laser surgery on the cornea, especially in view of the fact that reversability has not been demonstrated yet.

(1) Uthoff D, Poelzl M, Hepper D, Holland D. A new method of cornea modulation with excimer laser for simultaneous correction of presbyopia and ametropia. *Graefes Arch Clin Exp Ophthalmol* 2012; 250:1649-1661

(2) Holzer MP, Knorz MC, Tomalla M, Neuhann TM, Auffarth GU. Intrastromal Femtosecond Laser Presbyopia Correction: 1-year Results of a Multicenter Study. *J Refract Surg* 2012; 28:182-188