

Certain type of implanted lenses may be a treatment option for some patients with nearsightedness

July 13 2009

Implantable lenses made of a collagen-like substance appear to provide stable correction of moderate to high nearsightedness (myopia) over four years of follow-up, according to a report in the July issue of *Archives of Ophthalmology*.

"Laser-assisted in-situ keratomileusis (LASIK) has gained widespread popularity as a safe and effective surgical method for the correction of [myopia](#), but patients with high [severe] myopia or thin [corneas](#) face some restrictions in avoiding the risk of developing keratectasia [a weakening of the cornea]," the authors write as background information in the article.

An implantable lens consisting of a biocompatible collagen copolymer was developed to overcome these disadvantages, and has been reportedly effective in correcting moderate to severe [vision problems](#). The implantation procedure is largely reversible and the lens is interchangeable, unlike LASIK. However, complications such as the formation of cataracts, loss of cells lining the eye and [glaucoma](#) have been reported and are expected to increase with time.

To assess the long-term clinical outcomes of the lens implantation, Kazutaka Kamiya, M.D., Ph.D., of the University of Kitasato School of Medicine, Kanagawa, Japan, and colleagues evaluated 56 eyes of 34 patients who underwent implantation of the collagen copolymer lens.

Routine post-operative examinations were conducted one, three and six months and one, two and four years later.

At four years after surgery, 44 of the eyes (79 percent) were within 0.5 diopter (unit of measuring lens power) of the targeted correction and 52 (93 percent) were within one diopter. The authors suggest that collagen polymer lens implantation "results were good in all measures of safety, efficacy, predictability and stability for the correction of high myopia throughout the four-year follow-up," they write. "To our knowledge, this is the longest study to assess the refractive outcomes and adverse events" of the collagen copolymer lens implantation for myopia.

"In addition, no vision-threatening complications occurred throughout the follow-up period," they conclude. The authors note that their findings suggest that collagen copolymer lens implantation "may be a good alternative for the treatment of moderate to high myopia. More prolonged careful observation for longer than four years is necessary to assess late-onset complications of this surgical technique."

More information: Arch Ophthalmol. 2009;127[7]:845-850.

Source: JAMA and Archives Journals ([news](#) : [web](#))

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