Purpose: Although nowadays most of the artificial iris implants and surgical techniques for the treatment of aniridia are satisfactory with good visual outcomes, cosmetic results do not fully satisfy patients and surgeons. We present the postoperative outcomes after implantation of a new artificial iris implant in a challenging case.

Methods: A 24 years old male patient with bilateral congenital aniridia and cataract, horizontal nystagmus and controlled secondary glaucoma underwent phacoemulsification and intraocular lens implantation in the right eye combined with a custom-made artificial iris implantation in the sulcus (Dr.Schmidt, Germany). The preoperative visual acuity was 0,01 on the right eye and 0,02 on the left. Surgery of the fellow eye was performed similarly 4 weeks later.

Results: Because of a high IOP level 7 days after the first surgery, a trabeculectomy with mitomycin C was performed in each eye. After the glaucoma surgery, both eyes' IOP values went back to normal levels and remained stable throughout the subsequent periods of observation. Two months after the combined treatment, visual acuity was 0.1 in the right eye and 0.3 in the left eye. The artificial iris implant was well positioned in the ciliary sulcus. Perfect cosmetical results were achieved in both eyes.

Conclusions: The above-mentioned method is safe and effective in improving visual outcomes and provides excellent cosmetic result for patients with congenital aniridia problems.