OR-075

Prevalence of corneal astigmatism in cataract surgery candidates

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Purpose: To review the prevalence for total corneal astigmatism in patients awaiting cataract surgery.
Methods: Preoperative data (delta TK) were collected from 500 cataract eyes using IOL Master 700 (Carl Zeiss) at OKC Pfeifer from 1. September to 31. October 2024.
Results: Prevalence of eyes with delta TK 1.0 dioptres (D) or higher was in 29,4% of eyes, with 7,2 % having delta TK from 1,5 D to 1.9 D and 3,2 % having 2.0 D or more of total corneal astigmatism. Although toric IOLs could contribute to spectacle-free vision in eyes with corneal astigmatism, there are some considerations and patient counselling depending on patients' expectations is needed. Zonular instability and posterior capsular dehiscence are contraindications as a stable capsular bag- IOL complex is needed. Corneal diseases and irregularities, especially in the centre, induce irregular astigmatism, cause inconsistent measurements, worsen visibility during and after surgery, therefore, if possible, it may be better to treat them prior to astigmatic correction. Insufficient pupillary dilatation can hamper the visualisation of alignment marks in the periphery. Patients with retinal pathologies, after vitreoretinal surgery, with unstable glaucoma, uveitis pathology or optic nerve pathology may have compromised visual outcome due to preexisting pathology. Patient also don't decide for toric IOLs implantation due to high cost.
Conclusion: Toric IOL implantation is recommended in cataract eyes with total preoperative astigmatism of 1.0 D or higher. Almost 30% of cataract eyes had corneal astigmatism of 1.0 D or higher. Most of the eyes had astigmatism of 1.5 D or lower, only 3,2% of eyes in our cohort had total corneal astigmatism of 2.0 D or higher.

Prevalenca roženičnega astigmatizma pri očeh pred operacijo sive mrene

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Namen: Ugotoviti prevalenco skupnega roženičnega astigmatizma pri očeh pred operacijo sive mrene.
Metode: Zbrali smo predoperativne podatke (delta TK) izmerjene z IOL Master 700 (Carl Zeiss) za 500 oči v obdobju od 1. septembra do 31. oktobra 2024 v OKC Pfeifer.
Rezultati: Prevalenco skupnega roženičnega astigmatizma 1.0 D ali višje je imelo 29,4% oči, od tega jih je 7,2% imelo astigmatizem med 1,5 D in 1,9 D ter 3,2% oči 2.0 D in več. Čeprav torična IOL lahko prispeva k neodvisnosti od nošenja očal za daleč pri očeh z roženičnim astigmatizmom, obstajajo nekateri zadržki pri svetovanju glede vstavitve toričnih IOL glede na pacientova pričakovanja o pooperativni vidni funkciji. Nestabilnost zonul in posteriorna kapsularna dehiscenca vplivajo na rotacijsko stabilnost IOL. Sindrom suhega očesa, roženične distrofije, degeneracije, brazgotine, predhodna poškodba, bolezen ali operacija roženice, nestabilen ali iregularen astigmatizem in druge bolezni, če predhodno niso zdravljene, povzročajo nestabilne predoperativne meritve in/ali znižujejo vidljivost med ali po operaciji. Nezadostno razširjena zenica zmanjša vidljivost oznak na periferiji IOL. Pacienti po vitreoretinalni operaciji, nestabilnim očesnim pritiskom/glavkomom ali drugo patologijo vidnega živca ter vidnega polja, uveitisom imajo lahko pooperativno slabšo vidno ostrino oziroma potrebujejo zdravljenje pred operacijo sive mrene.
Zaključek: Vstavitev torične IOL je indicirana pri operaciji sive mrene pri očeh, ki imajo predoperativni skupni astigmatizem 1,0 D ali več, kar je imelo skoraj 30% pregledanih oči v naši študiji. Pri večini oči je bil astigmatizem 1,5 D ali nižji, le 3,2% oči v naši študiji je imelo skupni roženični astigmatizem 2.0 D ali višji.