Perbandingan Tajam Penglihatan dan Kurva Defokus pada Pasien Operasi dengan Menggunakan Lensa Extended Depth of Focus Murni dan Teknik Mini-Monovision - Interim Analysis - = Comparison of Visual Acuity and Defocus Curve after Cataract Surgery with Pure Extended Depth Focus Lens and Mini-Monovision - Interim Analysis -

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Abstrak

Latar belakang: Presbiopia pasca operasi katarak masih menjadi masalah meskipun teknik operasi dan teknologi lensa intra-okular terus berkembang. Teknik mini-monovision dan lensa extended depth of focus (EDoF) murni menjadi alternatif untuk mengkoreksi penglihatan jauh dan menengah dengan biaya relatif ringan.
Tujuan: Penelitian ini bertujuan membandingkan luaran klinis pasca operasi katarak dengan teknik mini-monovision secara binokular dan operasi katarak menggunakan lensa EDoF murni monokular.
Metode: Subjek penelitian dirandomisasi menjadi kelompok mini-monovision (lensa monofokal standar dengan anisometropia -1,25 D) dan kelompok EDoF Murni. Blinding dilakukan pada pemeriksa luaran klinis.
Hasil: Interim analysis dari total 16 pasien didapatkan luaran tajam penglihatan jauh dengan dan tanpa koreksi(TPJTK dan TPJDK) tidak berbeda bermakna antar kelompok. Median tajam penglihatan menegah tanpa koreksi (TPMTK) dan rerata tajam penglihatan dekat tanpa koreksi (TPDTK) mini-monovision binokular didapatkan 0,10 (0-0,10) LogMar dan 0,26 + 0,12 LogMar. Median TPMTK & rerata TPDTK EDoF monokular didapatkan 0,19 (0,14-0,50) LogMar dan 0,54 + 0,11 LogMar. Uji Mann-Whitney U pada luaran TPMTK didapatkan nilai p=0,001 dan uji T tidak berpasangan terhadap luaran TPDTK didapatkan nilai p=0,000. Kurva defokus lensa -2,50 D kelompok mini-monovision binokular 0,31 LogMar dan EDoF monokular 0,51 LogMar (p=0,019).
Kesimpulan: TPMTK, TPDTK dan kurva defokus lensa -2,50 D kelompok mini-monovision lebih baik dibandingkan kelompok EDoF
.....Background: Presbyopia after cataract surgery is still a problem despite recent surgical techniques and intraocular lens technology development. Mini-monovision techniques and pure extended depth of focus (EDoF) lenses are alternatives to achieve good distance and intermediate visual acuity at relatively inexpensive.
Purpose: This study aims to compare the clinical outcome after cataract surgery with binocular mini-monovision and cataract surgery using a pure monocular EDoF lens.
Methods: Subjects were randomized into the mini-monovision group (standard monofocal lenses with -1.25 D of anisometropia) and the pure EDoF group. Blinding was performed on the clinical outcome examiners.
Results: Interim analysis of a total of 16 patients revealed the outcome of distance visual acuity with and without correction (UCDVA and BCDVA) was not significantly different between groups. Median of uncorrected intermediate visual acuity (UIVA) and mean of uncorrected near visual acuity (UNVA) of binocular mini-monovision were 0.10 (0-0.10) LogMar and 0.26 + 0.12 LogMar. Median UIVA & mean UNVA monocular EDoF were 0.19 (0.14-0.50) LogMar and 0.54 + 0.11 LogMar respectively. The Mann-

Whitney U test of UIVA between groups revealed p=0.001 and the unpaired T-test of UNVA revealed p=0.000. Mean defocus curve of -2.50 D lens were 0.31 LogMar in binocular mini-monovision group and 0.51 LogMar monocular in EDoF group (p=0.019).
Conclusion: UIVA, UNVA and defocus curve of -2.50 D lens in the mini-monovision group were better than EDoF group.