Evidence Table 8. KQ 4 medical outcomes

| **Study** | **Comparators** | **Visual Field Mean Deviation at baseline** | **Visual Field Mean Deviation at follow-up** | **Comments** |
| --- | --- | --- | --- | --- |
| Berry198424 | BetaxololTimolol | Not reported | Not reported | Small changes, consistent withglaucomatous damage, were observedbetween the visual fields before treatment and at 26 weeks in three betaxolol-treated and two timolol-treated patients. These changes wereconsidered to be within the expectednormal range of variation. |
| Chiselita200526 | Latanoprost 0.005%Travoprost 0.004%Dorzalamide/Timolol | Entire studyMD= -4.01 | Entire studyMD= -4.68 ± 4.512-9 months | No significant difference |
| Dirks200633 | Bimatoprost 0.03%Latanoprost 0.005% | Not reported | Not reported | Defects of visual field in one patient in the latanoprost group worsened in both eyes. No other changes were reported during the 3 months. |
| Evans200837 | Latanoprost - TimololTimolol – Latanoprost | CS 3 cpg 1.35±0.11CS 18cpd 0.86±0.23MD -2.22±1.97CS 3cpd 1.36±0.21CS 18 cpd 0.77±0.30MD -3.63±4.27 | Increase in MD from -1.49 (at cross over) to -2.416 months | Significant loss in CS at 3cpd and 18 cpdSignificant improvement in CS 3cpd |
| Flammer199239 | CarteololTimolol | 4.14.4 | Not reported | Majority of the patients had a stable visual field, although few experienced either a deterioration or improvement after 1 year of treatment. There was no significant difference between groups. |
| Heijl200043 | Timolol 0.5%Placebo |  |  | At 5 years of follow-up, eight patients in the placebo group, and five patients in the timolol group developed glaucomatous field loss. No significant difference (P=0.53) in survival function between treatment groups during this period. At 10 years, 15 patients in the placebo group and seven patients in the timolol group had developed glaucoma. The Kaplan-Meier plot suggests a difference between the treatment groups, but the difference is not significant (P=0.07). |
| Herman (OHTS)200644 | ObservationTopical hypotensives | 0.210.28 | -0.42±1.94-0.20±1.57Last follow-up (mean follow-up duration = 6.3 years) | No significant difference between the 2 groups |
| Krupin 201154 | BrimonidineTimolol | 0.89 ± 0.20.90 ± 0.2 | Not reported | Primary outcome of the study was visual field progression. Fewer patients treated with Bimonidine (9.1%) had visual field progression than timolol-treated patients (39.2%) (p=0.001). However, more brimonidine-treated (28.3%) than timolol-treated (11.4%) patients discontinued treatment because of adverse events (p=0.008). |
| Marcon199059 | BetaxololLevobulol | Not reported | Not reported | One patient showed marked visual field improvement from baseline to 12 weeks in Betaxolol group, but there were no measurable changes in the other 19 patients in Betaxolol group and all 20 patients in Levobunolol group |
| Martinez201061 | Dorzolamide-timololBrinzolamide-timolol | -3.1 ±0.9-3.1 ±0.9 | Not reported | Mean deviation slopes during followup were -0.26 dB ⁄ year and -0.46 dB⁄ year for the DT and BT treatment groups, respectively (p = 0.008).According to the event-based method, progression was observed in 24 eyes (24%) in the DT group and 55 eyes (47%) in the BT group (p = 0.0006; chi-square test). |
| Melamed 200060 | Brimonidine 0.2%Timolol 0.5% |  |  | In the brimonidine group (n =40), 36 patients had no change in visual fields (within 5 dB of baseline) and 2 patients had improvement. In the timolol group (n = 39), 36 patients had no change and 1 showed improvement. Two brimonidine and 2 timolol patients had worsening of visual fields >5 dB from baseline. |
| Messmer199162 | Betaxolol 0.5%Timolol 0.5% | 2.23.4 | Not reported | In both treatment groups, visual fields tended to improve in the first 6 months and then remained stable or deteriorated. The treatment effect on visual fields was better in betaxolol group than in the timolol group |
| Miglior200564 | DorzalamidePlacebo | Not reported | Not reported | Visual field progression 38/407 in placebo group, 26/345 in dorzolamide group.Optic disc progression in 22/407 in placebo group, 20/345 in dorzolamide group. |
| Mirza200065 | Timolol 0.5%Carteolol 2%Metipranolol 0.3% | 5.03.43.83 months | 4.9±3.03.9±2.53.1±1.9 | No significant differences between groups |
| Prata200969 | Timolol 0.5%Brimonidine 0.2%Travoprost 0.004% | -6.84-5.45-7.10 | 1.01±2.530.68±2.700.81±2.32Mean improvement in MD at 1 month | Significant improvement in MD from baseline to 1 month in all three arms.In the travoprost group alone there was a mean (0.81±2.32 ) improvement of nerve damage |
| Rainer200373 | Betaxolol 0.25%Timolol 0.5% | -3.6-2.9 | -2.6±6.1-2.3±3.43 months | No significant differences between groups.Significant difference from baseline to 3 months in Betaxolol group only |
| Tuulonen198993 | LaserMedical | -7.4 ± 9.0-9.1 ± 6.1 | -8.6 ± 9.7-9.4 ± 8.5At 12 months | No significant differences between group |
| Vainio-Jylha199994 | Betaxolol 0.5%Timolol 0.25% | 23.1±3.122.2±4.1 | 24.3±3.523.9±3.424 months | No significant differences between groups but differences were significant for within group comparisons |
| Yamamoto199695 | Timolol 0.5%Carteolol 1%Carteolol 2% | Not reported | Not reported | Visual field was considered to have progressed if there was a decline in light sensitivity of 10 dB or more at any points except the four superior most ones and/or deterioration in mean deviation of 2 dB or more.During the study there were no significant changes in visual field |