IMPACT OF ANGIOTENSIN-CONVERTING ENZYME INHIBITORS FOR THE TREATMENT OUTCOME OF MACULAR EDEMA SECONDARY RETINAL VEIN OCCLUSION

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Purpose: to determine the effect of angiotensin-converting enzyme (ACE) inhibitors in the treatment of macular edema due to retinal vein occlusion (RVO).

Methods: We investigated 48 patients: 31 (65%) women, 17 (35%) men in average age 63.7±1.4 y. 20 (42%) of patients had central RVO, 28 (58%) - branch RVO. We performed standard ophthalmological examinations, spectral optical coherence tomography, fluorescein angiography, monitoring of the blood pressure (BP). Internist treated of systemic hypertension (SH). 52% of patients had compensation of BP with ACE inhibitors (33%), β-blockers and calcium channel blockers (19%). 48% of patients had decompensation of BP. We made of intravitreal injection (IVI) of ranibizumab according to standard, laser photocoagulation of ischemic retinal zones. Results: After IVI of ranibizumab mean best-corrected visual acuity increased in patients with compensation of SH of ACE inhibitors: 0,5±0,1 in group with nonischemic type and 0,12±0,1 in group with ischemic type (p<0.05). In group patients, who had decompensation of BP or didn’t use ACE inhibitors for the treatment of SH, effect was negligible. All patients had decrease of foveal thickness, regardless of the type of RVO. After 4 months 36 (75%) patients with decompensation of SH had recurrence of macular edema and decrease of visual acuity. 12 (25%) with compensated of SH had stable of morphological and functional parameters. Conclusions: ACE inhibitors, provided compensation of SH, increase the efficacy of treatment of macular edema in patients with RVO.

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