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Selective laser trabeculoplasty versus argon laser trabeculoplasty in patients with uncontrolled open-angle glaucoma

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Abstract

PURPOSE. To compare the efficacy of selective laser trabeculoplasty (SLT) to argon laser trabeculoplasty
(ALT) as treatment and retreatment to lower intraocular pressure (IOP) in patients with uncontrolled open-angle glaucoma (OAG) on maximally tolerated medication therapy with a follow-up of 12 months.
METHODS. A total of 120 eyes of 120 patients with uncontrolled OAG were enrolled in the study. Group A included patients with IOP >22 mmHg on maximal medical therapy. A total of 43 eyes underwent SLT treatment and 41 eyes underwent ALT treatment. At the end of the follow-up IOP was <18 mmHg. Group B included patients with IOP >20 mmHg at 3 months follow-up after SLT or ALT treatment. These patients were retreated randomly, 18
with SLT and 18 with ALT.
RESULTS. In Group A at the end of the follow-up there was no statistically significant difference in IOP lowering between SLT (6.01 mmHg) and ALT (6.12) ($p=0.794$). In Group B at the end of the follow-up patients undergoing SLT presented IOP lowering statistically significant to ALT treatment (6.24 mmHg and 4.65 mmHg, respectively, $p<0.01$).
DISCUSSION. SLT is effective as treatment for patients with OAG and appears to be equivalent to ALT in IOP lowering at 12 months only in patients without a prior treatment. In case of retreatment SLT appears to be better than ALT in IOP lowering.