

Effect of Anti-inflammatory treatment on intraocular pressure after selective laser trabeculoplasty

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Statement of the Problem: Topical steroids are known to increase intraocular pressure (IOP). The purpose of this study is to analyze the effect of anti-inflammatory drops (i.e. comparing topical corticosteroids versus non-steroidal anti-inflammatory drugs - NSAIDs) on intraocular pressure following Selective Laser Trabeculoplasty (SLT).

Methodology & Theoretical Orientation: 37 consecutive patients with open-angle glaucoma were randomly allocated into 2 treatment groups after a SLT procedure: ketorolac 0.5% (Acular®, N = 19) and fluorometholone 0.1% drops (FML®, N = 18). IOP was measured 1h, 24h, 1 week, and 1, 3 and 6 months after SLT.

Findings: IOP reduction was significant in both groups (mean reduction 5.22 ± 3.55 mmHg in the ketorolac group, and 5.19 ± 3.57 mmHg in the fluorometholone group, $p < 0.001$). There were no statistically significant differences in IOP between both groups through follow-up, except significantly lower IOP in the ketorolac group at 3 months (18.14 ± 2.49 mmHg) than in the fluorometholone group (20.88 ± 3.24 mmHg,

$p = 0.009$), with no differences at 6-month follow-up (mean IOP in both groups 19.09 ± 3.08 mmHg, and 19.69 ± 2.85 mmHg, respectively, $p = 0.575$). There were no statistically significant differences in mean IOP in the first 24 hours following the procedure (22.26 ± 4.73 in the ketorolac group and 24.36 ± 5.76 mmHg in the fluorometholone group, $p = 0.236$).

Conclusion & Significance: The anti-inflammatory treatment after SLT does not seem to have a short-term effect on the ocular hypotensive efficacy of selective laser trabeculoplasty, nor on the incidence of hypertensive peaks in the early post-treatment follow-up.

Speaker Biography

Laura Palmero Fernandez is an Ophthalmologist based in Madrid, Spain. She currently combines her work at King Juan Carlos University Hospital with a private practice. Her subfield of expertise includes cornea and ocular surface diseases, and cataract and refractive surgery. Her research is focused on keratoplasty techniques, keratoconus and challenging cornea cases.

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