

**Session 2-T: Glaucoma: Evaluation/Management of IOP**

**Title: Selective Laser Trabeculoplasty: Prospective Evaluation of Predictors of Success**

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**Purpose:** To evaluate patient and technique factors of predicted successful response after selective laser trabeculoplasty.

**Methods:** A large-scale, prospective study of SLT using a standard protocol in a diverse population base was conducted. Demographic, diagnosis, IOP, medication use, and prior history were recorded in primary, adjunctive, and replacement SLT therapy. Further evaluation was performed comparing initial, enhancement, and retreatment results. Therapeutic response was defined as  $\geq 20\%$  IOP and 3mmHg IOP reduction.

**Results:** 796 eyes of 442 patients with mean follow-up of 14.5 months were enrolled. Response rates based on diagnosis were 73.7% for POAG, 82.0% PXG, 90.3% PDG. In eyes with previous ALT, response rate was 60.0%, and was 33.3% in eyes with previous cataract surgery. IOP reductions were 28.7% after primary treatment and 19.4% as adjunctive therapy. Further analysis revealed IOP reductions of 24.5% with initial SLT treatment, 19.5% with SLT enhancement, and 12.1% with SLT retreatment. Positive predictors of successful response included primary therapy, age  $\geq 60$  years, preop IOP  $\geq 24$  mmHg, PXG, and PDG.

**Conclusions:** Older patients treated with initial primary therapy, with higher preop IOP and pseudoexfoliation or pigment dispersion had the highest response rate to SLT therapy.