

# REAL WORLD DATA ON LASER TRABECULOPLASTY IN THE TREATMENT OF OPEN-ANGLE GLAUCOMA: ONE YEAR OUTCOMES OF MICROPULSE DIODE (MDLT) VS SELECTIVE (SLT)

**Purpose:** One-year outcomes of micropulse diode laser trabeculoplasty (MDLT) and selective laser trabeculoplasty (SLT) as primary and secondary treatment of open angle glaucoma. Outcome measures are intraocular pressure reduction and number of topical anti-glaucoma medications required following laser therapy. Currently, no comparative studies on MDLT vs SLT as primary or secondary treatment of open-angle glaucoma are available.

**Method:** Single-centre retrospective, comparative case review of glaucoma patients who underwent either MDLT or SLT as primary and secondary treatment between February 2014 and February 2015.

**Results:** 24 eyes underwent MDLT and 5 eyes had SLT as primary treatment for glaucoma. 19/24 (79%) MDLT eyes and 5/5 (100%) SLT eyes had sustained  $\geq 20\%$  IOP reduction ( $P=0.262$ , no significant difference) at one year. In the MDLT group, one eye needed repeat laser, seven eyes required addition of anti-glaucoma drops, and one eye needed repeat laser and addition of drops.

For secondary treatment, 17/45 (38%) of MDLT eyes and 9/16 (56%) SLT eyes had sustained a  $\geq 20\%$  IOP reduction ( $P=0.199$ , no significant difference) at one year. Mean reduction of drops are 0.08 in the MDLT group and 0.17 in the SLT group. No complications.

**Conclusion:** SLT has marginally better IOP control but no significant difference when compared to MDLT. SLT has no need for additional topical anti-glaucoma treatment in primary treatment and slightly greater mean reduction of drops in secondary treatment than MDLT group at one year follow-up.