

Glaucoma

SYSTEMATIC REVIEW OF THE EFFECTIVENESS OF MICROPULSE LASER TRABECULOPLASTY (MLT) VS. SELECTIVE LASER TRABECULOPLASTY (SLT) IN REDUCING IOP IN PRIMARY OPEN ANGLE GLAUCOMA AND OCULAR HYPERTENSION

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PURPOSE: To review all literature comparing the effectiveness of MLT vs. SLT in reducing IOP in POAG and OHT. **METHODS:** This review was conducted in accordance with PRISMA guidelines. Ovid, Embase, Scopus, and Central were searched using terms including Trabeculoplasty, Micropulse (MLT, MDLT, & SPLT), Selective (SLT & ND:YAG). Original research of all languages and dates was included, up to March 24th, 2022. The search yielded 116 unique articles, with 10 meeting inclusion criteria after being reviewed by two researchers with conflicts resolved by a 3rd independent researcher. Levels of evidence ranged from II to IV. **RESULTS:** A total of 643 eyes were included, 311 eyes receiving MLT with an average of 64 eyes per study (SD +/-40.2). 90% (9/10) of the papers cited no statistically significant difference in IOP reduction between 1-18 months, and 5/10 papers cited SLT having more IOP spikes post-op however only 2 were statistically significant. **CONCLUSIONS:** Overall, the studies had significant variability in MLT laser frequency, however, the best available evidence suggests that MLT and SLT are similar in reducing mean IOP, but SLT requires more post-op interventions.