

## Effect of Nd: YAG laser posterior capsulotomy on intraocular pressure, refraction, anterior chamber depth, and macular thickness

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**Purpose:** To see the effect of Nd: YAG laser capsulotomy on intraocular pressure (IOP), refraction, best-corrected visual acuity (BCVA), anterior chamber depth (ACD), and macular thickness.

**Methodology:** The authors conducted a prospective, descriptive study on pseudophakic eyes with posterior capsule opacification who underwent Nd: YAG laser capsulotomy. BCVA, IOP, spherical equivalent (SE), macular thickness and ACD were noted preoperatively at 1 hr postoperatively and at 1-month follow-up. Patients were divided into two groups based on energy used (Group I  $\leq 50$  mJ, Group II  $> 50$  mJ). None of the patients received prophylactic anti-glaucoma medications either before or after the procedure.

**Results:** There were 96 eyes of 83 patients. Mean total energy levels were  $26.64 \pm 12.92$  mJ in Group I and  $81.96 \pm 32.10$  mJ in Group II. BCVA at 1 hr and 1 month postoperatively improved significantly in both the groups compared to preoperative BCVA ( $P < 0.001$ ). There was no significant change in SE compared to preoperative values in both the groups. The ACD continued to increase significantly in both the groups at both 1 hr and 1-month follow-up. In Group I, IOP increased at 1 hr postoperatively ( $P = 0.023$ ) and declined to preoperative levels at 1 month. In Group II, IOP increased at 1 hr postoperatively ( $P < 0.001$ ) and did not return to preoperative levels at 1-month follow-up ( $P = 0.003$ ). Likewise, macular thickness increased at 1 hr in both groups ( $P < 0.001$ ). In Group I, macular thickness decreased significantly to preoperative level at 1 month whereas in Group II, it remained significantly high at 1-month follow-up ( $P = 0.006$ ). There was no case with serious rise in IOP or cystoid macular edema.

**Conclusions:** Statistically significant increment in IOP and macular thickness occurs after Nd: YAG laser capsulotomy which however may not necessitate the use of any medications.

### Biography

Puneet Sharma is an ophthalmologist currently working in India. He has an impressive track record, having published numerous research papers and displaying a keen interest in various fields, including Retina and Retinal Detachment, Cornea Disorders and Treatments, Dry Eye & Low Vision, and Ophthalmology Surgery.

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