



## Factors to Prediction of Success of 20% Intraocular Pressure Reduction in Glaucoma Eyes Undergoing Ab-Interno Canaloplasty *Paper*

**Authors:** Ahmad A Aref, MD; David M Lubeck, MD; Keith Barton, MD; Nathan M. Kerr, MD; Nir Shoham-Hazon, MD



**Purpose:** To evaluate whether preoperative intraocular pressure (IOP) and medication burden can predict the 20% IOP reduction success rate.

**Method:** Glaucoma eyes which underwent ab-interno canaloplasty with iTrack devices (Nova Eye Medical, Fremont, USA) were extracted from the International Glaucoma Surgery Registry—a prospective multicenter database of glaucoma surgeries that is globally available. Data was entered from the United States (n=257), Canada (n=61), Australia (n=101), and Europe (n=5). Endpoints were the identification of correlations between the preoperative IOP and medication burden and achievement of a glaucoma standard 20% reduction following canaloplasty. Eyes were grouped according to postop IOP reduction: “yes20%” and “no20%”, respectively, based on whether they achieved at least a 20% IOP reduction at 12M postop.

**Results:** 424 eyes were included (mean age 72.3±10 years); 159 eyes reached 12M follow-up. IOP of eyes in the yes20% (n=86) and no20% (n=73) group was significantly different at baseline: 20.25±6.92 vs 15.30±3.75 (p<0.001). A significant but opposite result was observed at 12M postop: 12.25±3.28 (yes20%) vs 15.73±4.04 (no20%) (p<0.001). Number of medications was significantly reduced in both groups: 1.88±1.22 to 0.79±1.15 (p<0.001) in the yes20% and 2.04±0.98 to 0.81±1.27 in the no20% group at baseline and 12M postop, respectively (p<0.001). Preop IOP was highly correlated with IOP reduction (r=0.781; p<0.001). There was no significant difference between the groups based on meds at preop and postop.

**Conclusions:** Eyes with a higher preoperative IOP tend to more frequently achieve at least a 20% IOP reduction following ab-interno canaloplasty. Some eyes seem to respond particularly well to canaloplasty and achieve a lower preoperative IOP—a larger sample of eyes is necessary to stratify the groups and understand the baseline correlation factors.

**Disclosures:** Dr Aref: Alcon (consultant and speaker fees), New World Medical (consultant), Nova Eye Medical (consultant), Abbvie (Research Grants), Oculus Surgical (Advisor). Drs Lubeck, Barton, Kerr and Shoham-Hazon are consultants to Nova Eye Medical.

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Minimally Invasive Glaucoma Surgery (MIGS) II  
1:40 PM - 1:45 PM  
LACC - Meeting Room Level 2, 512