

# AB025. One-year outcomes of trabecular micro-bypass stents with concomitant cataract surgery in primary angle closure glaucoma

Ali Salimi<sup>1</sup>, Mohamed Abu-Nada<sup>1</sup>, Paul Harasymowycz<sup>2</sup>

<sup>1</sup>Faculty of Medicine, McGill University, Montreal, QC, Canada;

<sup>2</sup>Department of Ophthalmology, Maisonneuve-Rosemont Hospital, University of Montreal, Montreal, QC, Canada

Correspondence to: Paul Harasymowycz, MD, FRCSC, MSc. Centre de recherche de l'Hôpital Maisonneuve-Rosemont, 5415 Boul. de l'Assomption, Montréal, QC H1T 2M4, Canada.

Email: pharasymowycz@IGMH.COM.

**Background:** Trabecular microbypass stents have allowed improved multidirectional flow with good efficacy and safety profile in primary open-angle glaucoma (OAG). The efficacy of these devices in primary angle closure glaucoma has been understudied. We aimed to assess the one-year postoperative outcomes following implantation of trabecular micro-bypass stents with concomitant cataract surgery in angle-closure glaucoma patients.

**Methods:** We evaluated the baseline clinical characteristics and the 12-month outcomes of patients with mild to severe primary angle-closure glaucoma who underwent cataract surgery with implantation of either a first generation trabecular microbypass stent (iStent group) or two second

generation trabecular microbypass stents (iStent-inject group). The primary outcomes included intraocular pressure (IOP) and anti-glaucoma medication use. The secondary outcomes were success rate (defined by IOP between 5–18 mmHg with IOP reduction of at least 20%) and visual acuity.

**Results:** A total of 83 eyes (58 from the iStent and 25 from the iStent-inject group) were included with an average age of 68.9±8.6 and 67.6±8.3 years, respectively. All eyes had mild to severe angle-closure glaucoma. At one-year follow-up, the IOP decreased by 21% (from 18.8±4.5 mmHg) and 25% (from 18.7±3.6 mmHg), in each group respectively ( $P<0.001$ ). Additionally, the medication burden dropped by 52% and 50% at one-year follow-up ( $P<0.001$ ). The 12-month success rate was 45% in the iStent group compared to 64% in the iStent-inject group ( $P=0.086$ ) and visual acuity remained stable.

**Conclusions:** The present study provides clinically relevant, real-world data on the utility of iStent and iStent inject with cataract surgery in angle-closure glaucoma—a population that has been understudied in the world of trabecular micro-bypass stents. Our data demonstrated efficacy of these stents in reducing intraocular pressure and medication burden among patients with primary angle closure glaucoma.

**Keywords:** Glaucoma; angle closure; trabecular micro-bypass stents

doi: 10.21037/aes.2019.AB025

**Cite this abstract as:** Salimi A, Abu-Nada M, Harasymowycz P. One-year outcomes of trabecular micro-bypass stents with concomitant cataract surgery in primary angle closure glaucoma. *Ann Eye Sci* 2019;4:AB025.