CyPass Micro-Stent implantation in combination with phacoemulsification: 1-year single-center experience in Warsaw, Poland
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Purpose: To evaluate the 1-year safety and clinical outcomes of an ab interno supraciliary micro-stent in patients with open-angle glaucoma undergoing cataract surgery.

Methods: Eyes (n = 20) were enrolled in a single site at the Military Institute of Medicine in Warsaw, Poland. In each subject, the supraciliary device was implanted following cataract surgery through the same corneal incision. Medications were stopped following the procedure and re-introduced as deemed necessary by the investigator, per each subject’s intraocular pressure (IOP) target. Main outcomes were adverse events, IOP changes, and number of IOP-lowering medications at 1 year.

Results: At baseline, (n = 20) subjects had a mean IOP of 16.1 ± 3.3 mmHg on a mean of 2.3 ± 0.9 IOP-lowering medications, and 80% of patients were taking 2 or more medications. The CyPass Micro-Stent was successfully implanted in all 20 eyes. There were no major adverse events. The most common adverse events were of transient high IOP (4 cases, 20%) and transient hypotony (4 cases, 20%), all of which resolved by the first month. One subject underwent secondary glaucoma surgery to further control IOP and had the device concurrently explanted. At 1 year, mean IOP reduced to 14.1 ± 3.1 mmHg and mean medication usage reduced to 0.2 ± 0.4. There were no subjects (0%) on 2 or more medications, with 82% of subjects taking 0 medications.

Conclusion: CyPass Micro-Stent implantation in combination with cataract surgery is a minimally invasive procedure with an excellent safety profile and can reduce IOP and IOP-lowering medication usage at 1 year postoperatively. For many glaucoma patients, the CyPass Micro-Stent may eliminate the need for medications altogether.