

Supplementary Table 1. Baseline demographics, surgical details, and outcomes for first-time glaucoma drainage device (GDD) and second-time GDD in pediatric eyes

Categorical Variable	Value	First-Time GDD N = 150 Eyes	Second-Time GDD N = 22 Eyes
Follow-Up (Mean +/- SD, years)	All Patients	5.4 +/- 4.1	5.5 +/- 3.3
Sex (n (%))	Male	73 (48.7%)	13 (59.1%)
	Female	77 (51.3%)	9 (40.9%)
Race/Ethnicity (n (%))	African American	13 (8.7%)	5 (22.7%)
	Caucasian, Non-Hispanic	19 (12.7%)	3 (13.6%)
	Caucasian, Hispanic	62 (41.3%)	10 (45.5%)
	Asian American	7 (4.7%)	0 (0.0%)
	Unknown	49 (32.7%)	4 (18.2%)
Eye (n (%))	Right	79 (52.7%)	12 (54.6%)
	Left	71 (47.3%)	10 (45.5%)
Pre-Operative IOP (Mean +/- SD, mmHg)	All Eyes	32.8 +/- 9.5	27.6 +/- 8.5
	Failure Eyes	33.9 +/- 10	24.3 +/- 7.2
Concurrent Procedure with GDD Implantation (n (%))	Retina Procedure, Retina Procedure with Anterior Segment Procedure, Anterior Segment Procedure, Glaucoma-Related Surgery ± Anterior Segment Surgery	53 (36.3%)	9 (42.9%)
Pre-Operative Number of Glaucoma Medications (Mean +/- SD)	All Eyes	3.0 +/- 1.2	3.4 +/- 1.5
	Failure Eyes	2.6 +/- 1.0	1.7 +/- 0.5
Age at Surgery (Mean +/- SD, years)	All Eyes	7.3 +/- 5.7	7.4 +/- 5.6
	Failure Eyes	4.5 +/- 5.2	6.8 +/- 5.7
Type of Implant (n (%))	Ahmed	37 (24.8%)	3 (13.6%)
	Baerveldt	112 (75.2%)	19 (86.4%)
	Molteno	1 (0.7%)	0 (0.0%)
Tube Location (n (%))	Anterior Chamber	96 (64%)	14 (63.6%)
	Sulcus	12 (8.0%)	3 (13.6%)
	Pars Plana	42 (28.0%)	5 (22.7%)
Type of Glaucoma (n (%))	Glaucoma following cataract surgery	31 (20.7%)	3 (13.6%)
	Glaucoma associated with non-acquired systemic disease or syndrome	16 (10.7%)	7 (31.8%)
	Glaucoma associated with non-acquired ocular anomalies	22 (14.7%)	3 (13.6%)
	Glaucoma associated with acquired conditions	38 (25.3%)	1 (4.6%)
	Primary Congenital Glaucoma	40 (26.7%)	8 (36.4%)
Lens Status (n (%))	Juvenile Open Angle Glaucoma	3 (2.0%)	0 (0.0%)
	Phakic	90 (60.8%)	15 (68.2%)
Endpoint Outcomes (n (%))	Pseudophakic or Aphakic	58 (39.2%)	7 (31.8%)
	Failure	58 (38.7%)	11 (50%)
	Complete Success	20 (13.3%)	2 (9.1%)
Failure Reason (n (%))	Qualified Success	72 (48%)	9 (40.9%)
	NLP Vision	4 (6.9%)	4 (36.4%)
	IOP >21mmHg on 2 consecutive visits after 3 months	22 (37.9%)	4 (36.4%)
	IOP reduction <20% (or IOP <5mmHg) below baseline at 2 consecutive visits after 3 months	0 (0.0%)	0 (0.0%)
Survival (Mean +/- SD, months)	Reoperation for Glaucoma	32 (55.2%)	3 (27.2%)
	Failure	47 +/- 51	35 +/- 30
	Complication (all patients)	31 +/- 42	Data Excluded

Footnote:

- A “complete success” was defined as an eye that had not failed and did not receive supplemental medical therapy at the end of study period. A “qualified success” was defined as an eye that had not failed and required IOP-lowering medications at the end of the study period.
- Complication survival analysis was not performed on Second-Time GDD eyes due to low power