

Study <sup>reference number</sup>	Study design	Follow up	N (Eyes)	Baerveldt Type (mm <sup>2</sup> )	Study Comparison	Glaucoma Type
Gedde SJ et al. 2018 <sup>1</sup>	Multicenter RCT	1 year	125	350	Trab + MMC	(P)OAG, PEG/PEX
Gedde SJ et al. 2019 <sup>2</sup>	Multicenter RCT	3 years	125	350	Trab + MMC	(P)OAG, PEG/PEX
Gedde SJ et al. 2007 <sup>3</sup>	Multicenter RCT	1 year	107	350	Trab + MMC	(P)OAG, PEG/PEX
Gedde SJ et al. 2012 <sup>4</sup>	Multicenter RCT	5 years	107	350	Trab + MMC	(P)OAG, PEG/PEX
Gedde SJ et al. 2007 <sup>5</sup>	Multicenter RCT	1 year	107	350	Trab + MMC	(P)OAG, PEG/PEX
Gedde SJ et al. 2012 <sup>6</sup>	Multicenter RCT	5 years	107	350	Trab + MMC	(P)OAG, PEG/PEX
Christakis PG et al. 2011 <sup>7</sup>	Multicenter RCT	1 year	114	350	Ahmed-FP7	Glaucoma
Christakis PG et al. 2016 <sup>8</sup>	Multicenter RCT	5 years	114	350	Ahmed-FP7	Glaucoma
Budenz DL et al. 2016 <sup>9</sup>	Multicenter RCT	5 years	133	350	Ahmed-FP7	Glaucoma
Budenz DL et al. 2011 <sup>10</sup>	Multicenter RCT	1 year	133	350	Ahmed-FP7	Glaucoma
Budenz DL et al. 2015 <sup>11</sup>	Multicenter RCT	5 years	133	350	Ahmed-FP7	Glaucoma
Britt MT et al. 1999 <sup>12</sup>	Extended follow-up on a RCT	5 years	53	350	Baerveldt-500	Neovascular glaucoma
Iwasaki K et al. 2018 <sup>13</sup>	Prospective cohort study	1 year	45	350	N/A	Glaucoma
Chansangpetch S et al. 2018 <sup>14</sup>	Retrospective observational study	1.5 year	37	250 and 350	N/A	Glaucoma
Rai AS et al. 2018 <sup>15</sup>	Retrospective cohort study.	2 years	104	250 and 350	Ahmed-FP7/8	Glaucoma
Resende AF et al. 2016 <sup>16</sup>	Retrospective chart review	2 years	38	250 and 350	Ahmed-FP7, S2, M4	Glaucoma
Panarelli JF et al. 2016 <sup>17</sup>	Retrospective comparative case series	3 years	55	350	Trab + MMC	Glaucoma
Iverson SM et al. 2015 <sup>18</sup>	Retrospective chart review	5 years	23	250 and 350	Trab + MMC	Uveitic glaucoma
Allan EJ et al. 2015 <sup>19</sup>	Comparative case study	3 years	52	350	Baerveldt-250	Glaucoma
Wang JC et al. 2004 <sup>20</sup>	Retrospective nonrandomized study	0.5 year	24	350	Ahmed-S2	Glaucoma
Seah SK et al. 2003 <sup>21</sup>	Retrospective nonrandomized comparative trial	3 years	70	350	Baerveldt-250	Glaucoma

Table S1. Summary of the retrieved studies from the systematic review.

RCT = Randomized Controlled Trial; Trab + MMC = trabeculectomy + mitomycin c, (P)OAG = (Primary) open-angle glaucoma; PEX/PEG = Pseudoexfoliation/PEX-glaucoma; Glaucoma= mixture of different types of glaucoma

<b>Perioperative</b>	<b>RCT<sup>1,5</sup></b>	<b>Non-RCT</b>
Vitreous prolaps	0-1%	N/A
Scleral perforation	3%	N/A
Hyphema	1-3%	N/A
Conjunctival buttonhole	2%	N/A
<b>Early postoperative ≤3 months</b>	<b>RCT<sup>2,6,9</sup></b>	<b>Non-RCT<sup>14,17,18,21</sup></b>
Hyphema	2-17%	0-10%
Choroidal effusion	10-14%	1-16%
Shallow or flat anterior chamber	10-20%	3-19%
Wound leak	1%	3%
Corneal edema	22%	N/A
Cystoid macula edema	2%	4%
Suprachoroidal hemorrhage	2%	1%
Diplopia/ Motility disorder	5%	9%
Aqueous misdirection	3%	N/A
Hypotony maculopathy	2%	0%
Endophtalmitis or blebitis	1%	0-3%
Vitreous hemorrhage	1-2%	0-3%
Tube complication	16%	3%
Retinal detachment	N/A	4%
Total surgical reinterventions required	13-22%	N/A
<b>Late postoperative ≤5 years</b>	<b>RCT<sup>1,2,5-9,11</sup></b>	<b>Non-RCT<sup>13-21</sup></b>
Hyphema	2-19%	0-33%
Choroidal effusion	12-16%	1-22%
Shallow or flat anterior chamber	1-20%	3-30%
Wound leak	1%	0-3%
Corneal edema	12-34%	2-19%
Encapsulated bleb	2-11%	N/A
Dysesthesia	1%	N/A
Cystoid macula edema	5-9%	4-26%
Suprachoroidal hemorrhage	2-3%	1-3%
Diplopia/ Motility disorder	2-17%	4-9%
Aqueous misdirection	3-4%	4%
Hypotony maculopathy	3-4%	0-6%
Endophtalmitis or blebitis	1-3%	0-3%
Iritis	2-12%	N/A
Vitreous hemorrhage	1-5%	0-3%
Tube complication	8-33%	4-13%
Retinal detachment	1-2%	2-4%
Cataract progression	41%	4-6%
No light perception	6%	N/A
Phthisis bulbi	2-6%	0-4%
Total surgical reinterventions required	22-51%	0-19%

Table S2. Incidence ranges of perioperative and postoperative complications recorded in the included RCT (=Randomized Controlled Trial) and non-RCT studies. Presented with reference number of corresponding study.

## References

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