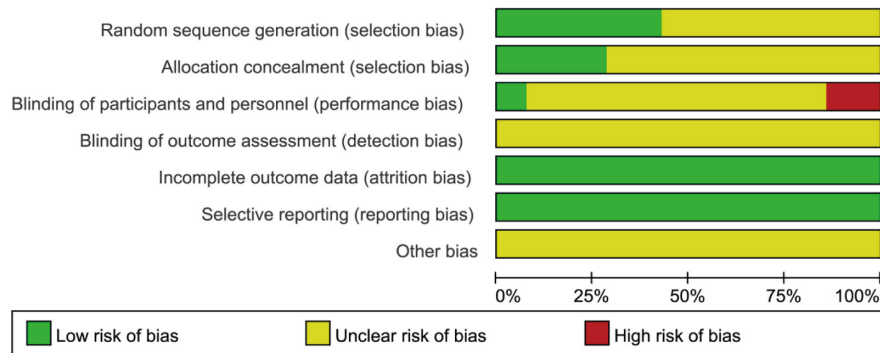


**Table S1** Characteristics included in all studies

No.	Author	Country	Design	EX/A/TR	Glaucoma types	Age, years	Follow-up time
1	Bo <i>et al.</i> 2018, (27)	China	RCT	38/35/NA	NVG, secondary OAG	53.5±13.6	12.0±1.8 months
2	de Jong <i>et al.</i> 2011, (16); de Jong 2009, (25)	Netherlands	RCT	40/NA/39	POAG, PXFG, PG	65.6±13.4	5 years
3	Errico <i>et al.</i> 2016, (18)	Italy	RCT	10/NA/16	OAG	53.9±13.9	≥2 years
4	Wilson <i>et al.</i> 2003, (14)	American	RCT	NA/59/64	POAG or PCACG	52.0±17.5	31±9.1 months
5	Zhang <i>et al.</i> 2016, (28)	China	RCT	32/37/NA	Refractory glaucoma	NA	9 months
6	Netland <i>et al.</i> 2014, (22)	American	RCT	59/NA/61	OAG (including POAG, and PG);	68.6±11.0	2 years
7	Arimura <i>et al.</i> 2018, (23)	Japan	RCT	32/NA/32	POAG, PXFG	71.7±10.5	3 months
8	Mendoza-Mendieta <i>et al.</i> 2016, (15)	Mexico	RCT	20/NA/19	POAG, PXFG PG; secondary OAG	64.3±14.6	9.1±5.1 months
9	Pakravan <i>et al.</i> 2007, (19)	Iran	RCT	NA/15/13	Unresponsive aphakic glaucoma	10.1±4.7	13.9±10.2 months
10	Kobayashi <i>et al.</i> 2018, (20)	Japan	RCT	32/NA/26	POAG, PXFG	64.8±11.5	3 months
11	Kato <i>et al.</i> 2015, (29)	Japan	RCT	21/NA/22	POAG, PXFG Plateau iris, secondary OAG	67.1±12.2	142.4±66.4 days
12	El-Saied <i>et al.</i> 2017, (21)	Egypt	RCT	10/10/10	Secondary OAG	34.7±4.9	1 years
13	Wagschal <i>et al.</i> 2015, (24); Gonzalez-Rodriguez <i>et al.</i> 2016, (26); Beltran-Agullo <i>et al.</i> 2015, (30)	Canada	RCT	33/NA/31	OAG	63.9±11.6	3 years
14	Dahan <i>et al.</i> 2012, (17)	South Africa	RCT	15/NA/15	Bilateral POAG	65.4 ±13.7	23.6±6.9 months

RCT, randomized controlled trials; NVG, neovascular glaucoma; OAG, open angle glaucoma; POAG, primary open-angle glaucoma; PXFG, pseudo exfoliation glaucoma; PG: pigmentary glaucoma; PCACG, primary chronic angle-closure glaucoma.



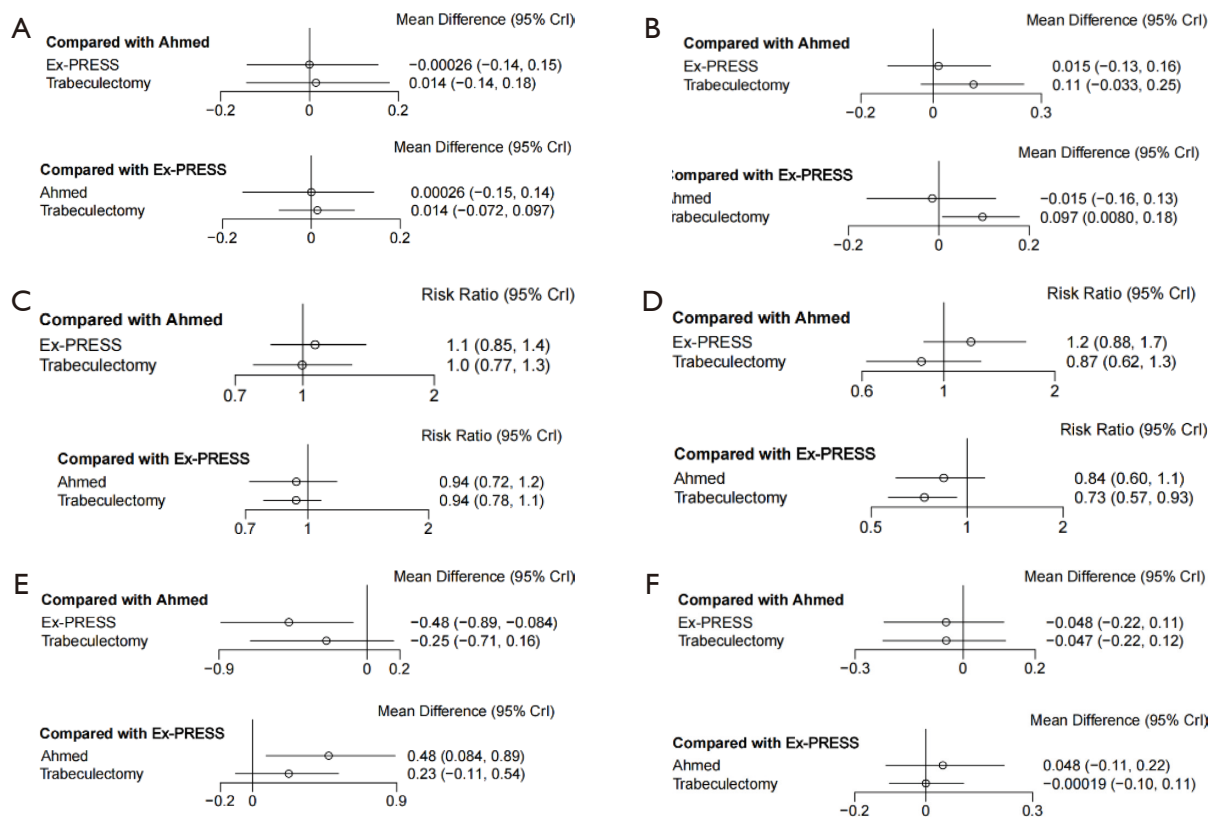
**Figure S1** Judging the risk of bias for each project as a percentage of all eligible.

	Random sequence generation (selection bias)	Allocation concealment (selection bias)	Blinding of participants and personnel (performance bias)	Blinding of outcome assessment (detection bias)	Incomplete outcome data (attrition bias)	Selective reporting (reporting bias)	Other bias
Arimura, S et al 2016	+	+	?	?	+	+	?
Wagschal et al 2015; Gonzalez-R et al 2016; Beltran-A et al 2015	+	+	+	?	+	+	?
Dahan, E et al 2012	?	+	+	?	+	+	?
De Jong, L et al 2011	+	?	?	?	+	+	?
EL-SAIED, H.M et al 2017	+	?	?	?	+	+	?
Errico, D et al 2016	?	?	?	?	+	+	?
Kato, N et al 2015	?	?	?	?	+	+	?
Kobayashi, N et al 2018	?	?	?	?	+	+	?
Mendoza-Mendieta, M. E et al 2016	?	?	?	?	+	+	?
Miaomiao Zhang et al 2016	?	?	?	?	+	+	?
Netland, P.A et al 2014	+	+	+	?	+	+	?
Pakravan, M et al 2007	?	?	?	?	+	+	?
Wen Bo et al 2018	?	?	?	?	+	+	?
Wilson, M. R et al 2003	+	?	?	?	+	+	?

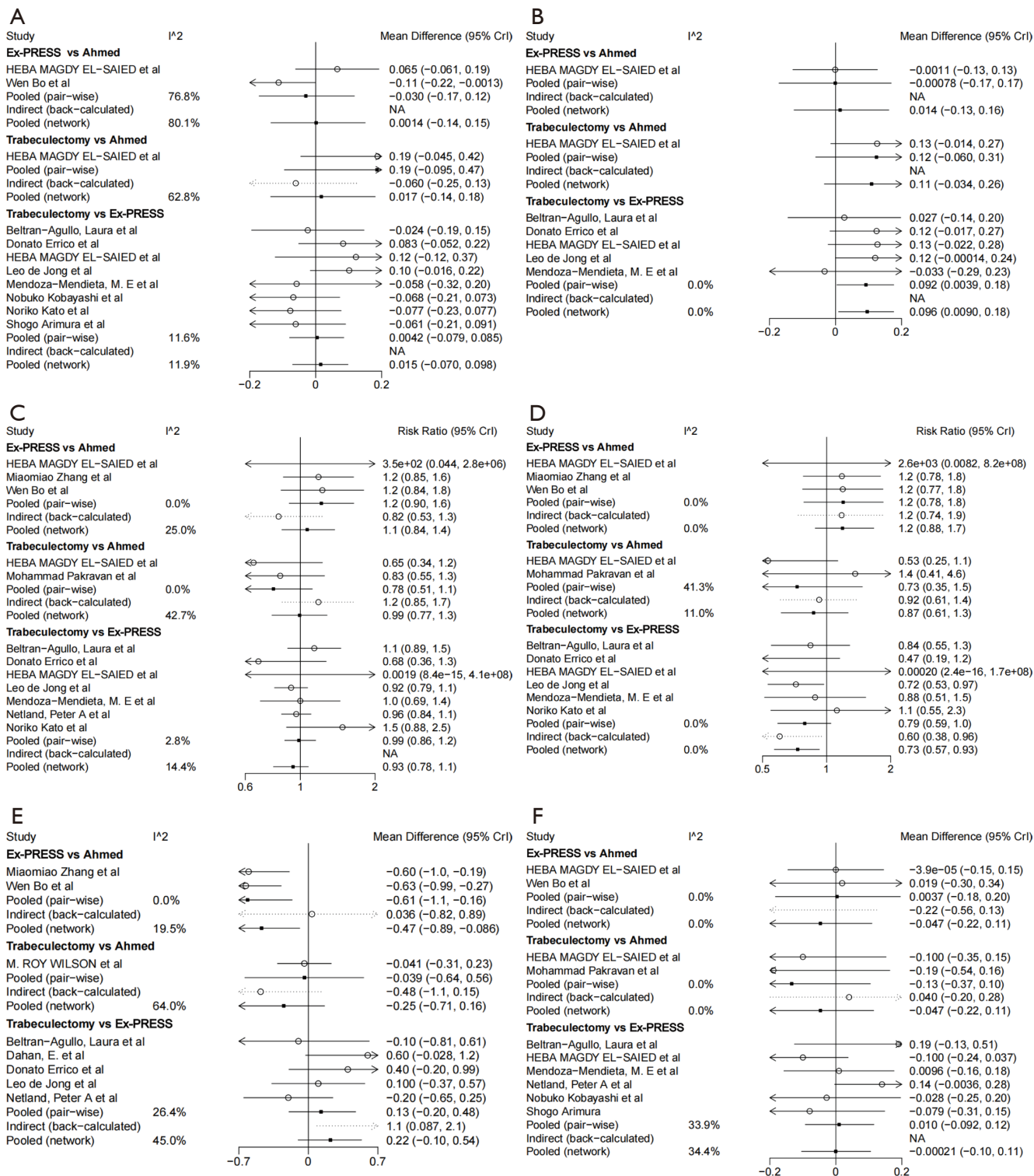
Figure S2 Judgment of the risk of bias for each study.

Table S2 Probability ranking table of 6 outcome indicators

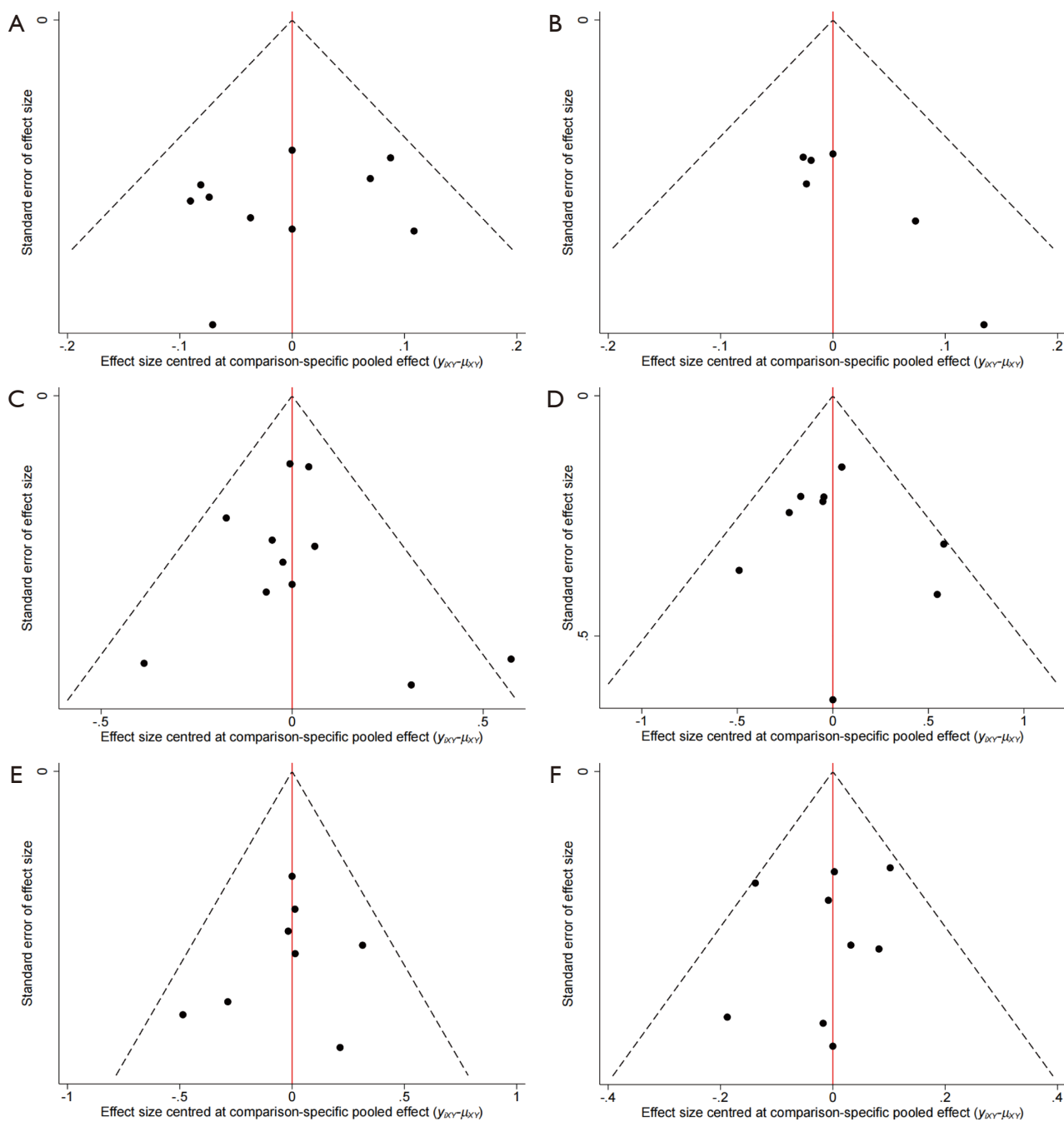
	Ranks	Ahmed	Ex-PRESS	Trabeculectomy
IOP 3 months	Rank1	0.37	0.20	0.44
	Rank2	0.19	0.47	0.34
	Rank3	0.44	0.33	0.22
IOP 1 year	Rank1	0.05	0.01	0.93
	Rank2	0.36	0.58	0.06
	Rank3	0.59	0.41	0.00
OS	Rank1	0.26	0.63	0.11
	Rank2	0.27	0.31	0.43
	Rank3	0.47	0.06	0.47
CS	Rank1	0.12	0.88	0.01
	Rank2	0.68	0.12	0.20
	Rank3	0.20	0.00	0.80
Medicine	Rank1	0.90	0.00	0.09
	Rank2	0.09	0.08	0.83
	Rank3	0.01	0.91	0.08
BCVA	Rank1	0.65	0.17	0.18
	Rank2	0.16	0.43	0.41
	Rank3	0.19	0.40	0.41



**Figure S3** XXXXXXXXXXXXXXXX. (A) Intraocular pressure after 3 months (IOP 3 months); (B) intraocular pressure after 1 year (IOP 1 year); (C) overall success (OS); (D) complete success (CS); (E) the number of post-operative medications used; (F) best corrected visual acuity (BCVA).



**Figure S4** XXXXXXXXXXXXXXX. (A) Intraocular pressure after 3 months (IOP 3 months); (B) intraocular pressure after 1 year (IOP 1 year); (C) overall success (OS); (D) complete success (CS); (E) the number of post-operative medications used; (F) best corrected visual acuity (BCVA).



**Figure S5** XXXXXXXXXXXXXXXX. (A) Intraocular pressure after 3 months (IOP 3 months); (B) intraocular pressure after 1 year (IOP 1 year); (C) overall success (OS); (D) complete success (CS); (E) the number of post-operative medications used; (F) best corrected visual acuity (BCVA).