

Supplemental file 4. Evidence tables of all identified risk factors for the development of OHT after keratoplasty

Legend

These evidence tables summarize the univariate and multivariate results of all identified risk factors for the development of OHT after keratoplasty. Conform table 3, all evidence tables are ranked according to the strength of association (high to low) and the preoperative (p2), intraoperative (p19), postoperative (p33), and pre- and postoperative (p38) status. The last category exists of risk factors of which the pre- or intraoperative (p39) status was not defined. Each number in the table represents a study corresponding with the reference list used in table 1. The number of study clusters, studies, and patients is summarized below the study numbers. Numbers between parentheses represent the total number of multivariate and univariate conclusions in the analysis. Significant refers to statistical significance ($P < 0.05$)

Underlined studies belong to the same study cluster.

* Indicates specifically steroid responders.

†, †† Indicates and specifies subgroups that have been made within one study and are further specified under the table.

Abbreviations: (D)ALK = (deep) anterior lamellar keratoplasty, DLEK = deep lamellar endothelial keratoplasty, DMEK = descemet membrane endothelial keratoplasty, DS(A)EK = descemet stripping (automated) endothelial keratoplasty, ECCE = extracapsular cataract extraction, EK = endothelial keratoplasty, FED = Fuchs endothelial dystrophy, IOL = intraocular lens, IOP = intraocular pressure, Kpro = keratoprosthesis, PKP = penetrating keratoplasty

Preoperative risk factors

Pre-existing glaucoma	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=17)	[61], [59], [56],[32], [26], [33]†, [12], [52] and [52]*, [54]†, [6], [57], [74]†	[67], [27], [74]††		[49]	[71]	
No. Of clusters	11	3	0	1	1	0
No. Of studies	12	3	0	1	1	0
No. Of patients	7418	3877	0	53	59	0
Multivariate analysis (n=7)	[61], [56], [32], [57]	[40], [53]			[67]	
No. Of clusters	4	2	0	0	1	0
No. Of studies	4	2	0	0	1	0
No. Of patients	2305	233	0	0	379	0

[33]† early and late post-op period;

[54]† In eyes with Fuchs and bullous keratopathy

[74]† PK, EK ALK, Kpro, PK + EK and in PK separately; †† EK; ALK

Preoperative IOP	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=4)	[35], [39]	[42]		[25]		
No. Of clusters	2	1	0	1	0	0
No. Of studies	2	1	0	1	0	0
No. Of patients	161	324	0	48	0	0
Multivariate analysis (n=3)	[67], [53]	[40]				
No. Of clusters	2	1	0	0	0	0
No. Of studies	2	1	0	0	0	0
No. Of patients	496	116	0	0	0	0

Glaucoma in contralateral eye (no glaucoma in investigated eye)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[42]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	324	0	0	0	0	0
Multivariate analysis (n=1)	[42]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	324	0	0	0	0	0

History of pseudo-exfoliation syndrome	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[59]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	176	0	0	0	0	0
Multivariate analysis (n=7)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Preoperative treatment of glaucoma with medication	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[50]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	298	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Preoperative treatment of glaucoma with medication and/or surgical	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[34]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	80	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Preoperative treatment of glaucoma surgical	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=3)	[61]	[50]			[27]	
No. Of clusters	1	1	0	0	1	0
No. Of studies	1	1	0	0	1	0
No. Of patients	1657	298	0	0	400	0
Multivariate analysis (n=1)		[61]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	1657	0	0	0	0

Preoperative treatment with medication vs. surgical	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[12]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	678	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Preoperative treatment with one vs. two or more medications	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[12]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	678	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Cyclosporine use before transplantation	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)	[40]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	116	0	0	0	0	0

Olopatadine 0.1% use before transplantation	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)	[40]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	116	0	0	0	0	0

Age patient (old vs. young age)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=12)	[61], [12], [57]	[39]		[56], [25], [49], [34], [74]	[75], [42]††	[42]†
No. Of clusters	3	1	0	5	2	1
No. Of studies	3	1	0	5	2	1
No. Of patients	2780	46	0	3425	479	324
Multivariate analysis (n=9)	[57]	[61]	[16]	[53]	[42]††, [40], [67]	[75], [42]†
No. Of clusters	1	1	1	1	2	2
No. Of studies	1	1	1	1	3	2
No. Of patients	445	1657	25	117	819	479

[42]† age < 60 years vs. ≥70 years; †† age 60-69 years vs. ≥70 years

Gender (male vs. female)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=9)	[74], [57]	[42], [75]		[56], [49], [25]	[39], [34]	
No. Of clusters	2	2	0	3	2	0
No. Of studies	2	2	0	3	2	0
No. Of patients	3543	479	0	247	126	0
Multivariate analysis (n=4)	[57]	[75], [40]	[16]			
No. Of clusters	1	2	1	0	0	0
No. Of studies	1	2	1	0	0	0
No. Of patients	455	271	25	0	0	0

History of ocular surgery	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)						[56]
No. Of clusters	0	0	0	0	0	1
No. Of studies	0	0	0	0	0	1
No. Of patients	0	0	0	0	0	146
Multivariate analysis (n=1)					[56]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	146	0

Preoperative presence of peripheral anterior synechiae	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[33]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	729	0	0	0	0	0
Multivariate analysis (n=1)				[53]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	117	0	0

Age donor (older age)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)		[62]			[65]	
No. Of clusters	0	1	0	0	1	0
No. Of studies	0	1	0	0	1	0
No. Of patients	0	90	0	0	529	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Diabetes mellitus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)				[49]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	53	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Hypertension	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)				[49]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	53	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Family history of keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)				[25]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	48	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

History of steroid use (systemic + topical)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)				[25]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	48	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Indication bullous keratoplasty (yes vs. no)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=0)	[67]†	[67]††				
No. Of clusters	1	1	0	0	0	0
No. Of studies	1	1	0	0	0	0
No. Of patients	379	379	0	0	0	0

[67]† pseudophakic bullous keratoplasty; †† aphakic bullous keratoplasty

Microbial keratitis with vs. without corneal perforation	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[3]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	506	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Inflammatory vs. non-inflammatory indication	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[33]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	729	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Indication (general)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[35]		[56], [49]		
No. Of clusters	0	1	0	2	0	0
No. Of studies	0	1	0	2	0	0
No. Of patients	0	115	0	199	0	0
Multivariate analysis (n=0)				[53]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	117	0	0

History of vernal keratoconjunctivitis	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)					[13]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	464	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Non-optical vs. optical indication	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=0)		[40]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	116	0	0	0	0

Keratoconus + vernal keratoconjunctivitis vs. keratoconus only	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[11]*				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	76	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Bullous keratoplasty vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=11)	[33], [12], [7], [61], [26]††, [1]†	[2], [1]††, [26]††, [48]†		[48]††		
No. Of clusters	6	4	0	1	0	0
No. Of studies	6	4	0	1	0	0
No. Of patients	3663	1278	0	160	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

[1]† aphakic bullous keratoplasty; †† pseudophakic bullous keratoplasty

[26]† pseudophakic bullous keratoplasty; †† aphakic bullous keratoplasty

[48]† aphakic bullous keratoplasty; †† pseudophakic bullous keratoplasty

Corneal dystrophy (general) vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=8)	[61]	[33], [61], [1]		[26], [12], [7], [14]		
No. Of clusters	1	3	0	3	0	0
No. Of studies	1	3	0	4	0	0
No. Of patients	1657	2571	0	2002	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

FED vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=3)		[8]		[48]	[24]	
No. Of clusters	0	1	0	1	1	0
No. Of studies	0	1	0	1	1	0
No. Of patients	0	170	0	160	158	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Scar vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=6)	[33], [12], [14]	[48], [61], [1]				
No. Of clusters	2	3	0	0	0	0
No. Of studies	3	3	0	0	0	0
No. Of patients	2317	2002	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Trauma vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=3)	[61]	[48], [7]				
No. Of clusters	1	2	0	0	0	0
No. Of studies	1	2	0	0	0	0
No. Of patients	1657	388	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Herpetic keratitis vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=3)		[48], [7], [33]				
No. Of clusters	0	3	0	0	0	0
No. Of studies	0	3	0	0	0	0
No. Of patients	0	1117	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Infectious keratitis vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=8)	[26]†, [33], [12]	[26]††, [2], [7]†		[48], [7]††		
No. Of clusters	3	3	0	2	0	0
No. Of studies	3	3	0	2	0	0
No. Of patients	1593	1161	0	388	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

[7]† infectious keratitis; †† interstitial keratitis

[26]† fungal infection; †† ulcerative keratitis, viral, bacterial

Others (general) vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=5)	[12]	[48], [1]			[26], [7]	
No. Of clusters	1	2	0	0	2	0
No. Of studies	1	2	0	0	2	0
No. Of patients	678	345	0	0	414	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Adherent leucoma vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[2]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	747	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Descemetocoele vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[33]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	729	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Band keratopathy vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[33]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	729	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Dysgenesis vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)				[48]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	160	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Corneal edema vs. keratoconus	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[14]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	910	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Preoperative: Aphakic vs. phakic	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=6)	[2], [33]	[35], [75]				[3] [56]
No. Of clusters	2	2	0	0	0	2
No. Of studies	2	2	0	0	0	2
No. Of patients	1476	270	0	0	0	652
Multivariate analysis (n=1)					[56]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	146	0

Preoperative: Pseudophakic vs. Phakic	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=6)	[33]	[2], [35], [75]			[42]	[56]
No. Of clusters	1	3	0	0	1	1
No. Of studies	1	3	0	0	1	1
No. Of patients	729	1017	0	0	324	146
Multivariate analysis (n=1)					[56]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	146	0

Preoperative: Aphakic or pseudophakic vs. Phakic	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[34]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	80	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Preoperative: Lens status in general	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=6)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)				[53]		
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	117	0	0

Preoperative: placement of IOL: Sulcus vs. bag	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)					[33]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	729	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Preoperative: placement of IOL: Scleral fixated vs. Bag	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)					[33]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	729	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Ethnicity: Caucasian vs. African-American descent	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)						[74]
No. Of clusters	0	0	0	0	0	1
No. Of studies	0	0	0	0	0	1
No. Of patients	0	0	0	0	0	3098
Multivariate analysis (n=1)						[67]
No. Of clusters	0	0	0	0	0	1
No. Of studies	0	0	0	0	0	1
No. Of patients	0	0	0	0	0	379

Ethnicity: Maori or Pacific (new Zealand Europeans, Samoan, other Pacific people) ethnicity vs. others (Indian, other European en Middel Eastern)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)						[25]
No. Of clusters	0	0	0	0	0	1
No. Of studies	0	0	0	0	0	1
No. Of patients	0	0	0	0	0	48
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Ethnicity: Non-Chinese vs. Chinese	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[42]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	324	0	0	0	0
Multivariate analysis (n=1)					[40]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	116	0

Ethnicity: Region of the United States (East, West, Midwest, South)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)				[74]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	3098	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Intraoperative risk factors

Type of surgery: PKP vs. DS(A)EK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=9)	[49], [61], [54]†	[63], [44]		[64]	[42], [47], [54]††, [54]*†††	
No. Of clusters	3	2	0	1	2	0
No. Of studies	3	2	0	1	3	0
No. Of patients	1822	302	0	71	1264	0
Multivariate analysis (n=1)	[61]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	1657	0	0	0	0	0

[54]† in eyes with bullous keratoplasty; †† in eyes with Fuchs; [54]††† in eyes with a steroid response (for both Fuchs and bullous keratoplasty)

Type of surgery: DSEK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[27]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	400	0	0	0	0	0
Multivariate analysis (n=1)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Type of surgery: Regraft (due to failed or rejected graft)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=11)	[61], [1], [33], [12], [75], [57]	[32], [26], [48]			[7]	[2]
No. Of clusters	6	3	0	0	1	1
No. Of studies	6	3	0	0	1	1
No. Of patients	3849	403	0	0	228	747
Multivariate analysis (n=3)		[32], [67]†			[67]††	
No. Of clusters	0	2	0	0	1	0
No. Of studies	0	2	0	0	1	0
No. Of patients	0	436	0	0	379	0

[67]† in re-DSAEK vs. no re-DSAEK; †† PK failure vs. no PK failure as indication

Type of surgery: Re-PKP vs. DSAOK after failed PKP	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)						[15]
No. Of clusters	0	0	0	0	0	1
No. Of studies	0	0	0	0	0	1
No. Of patients	0	0	0	0	0	45
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Type of surgery: PKP vs. DALK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=7)	[51], [72], [61]	[10], [68]*, [76]			[22]	
No. Of clusters	3	3	0	0	1	0
No. Of studies	3	3	0	0	1	0
No. Of patients	1843	305	0	0	36	0
Multivariate analysis (n=1)		[61]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	1657	0	0	0	0

Type of surgery: Re-PKP vs. EK after failed PKP	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[43]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	113	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Type of surgery: ALK vs. DSAEK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[61]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	1657	0	0	0	0
Multivariate analysis (n=1)		[61]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	1657	0	0	0	0

Type of surgery: DAEK converted to PKP vs. DALK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[69], [69]*				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	54	0	0	0	0
Multivariate analysis (n=1)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Type of surgery (general)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)				[74], [17]*		
No. Of clusters	0	0	0	2	0	0
No. Of studies	0	0	0	2	0	0
No. Of patients	0	0	0	3259	0	0
Multivariate analysis (n=1)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Type of surgery: DMEK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)					[71]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	59	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Type of surgery: DALK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[38]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	59	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Combined surgery: Keratoplasty + IOL removal or exchange	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=5)	[61], [1], [60]	[32], [2]				
No. Of clusters	3	2	0	0	0	0
No. Of studies	3	2	0	0	0	0
No. Of patients	1883	804	0	0	0	0
Multivariate analysis (n=2)	[61], [32]					
No. Of clusters	2	0	0	0	0	0
No. Of studies	2	0	0	0	0	0
No. Of patients	1714	0	0	0	0	0

Combined surgery (general)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=7)	[56], [42], [33]	[26], [7]		[54], [75]		
No. Of clusters	3	2	0	2	0	0
No. Of studies	3	2	0	2	0	0
No. Of patients	1199	414	0	267	0	0
Multivariate analysis (n=3)	[56], [42]	[40]				
No. Of clusters	2	1	0	0	0	0
No. Of studies	2	1	0	0	0	0
No. Of patients	470	116	0	0	0	0

Combined surgery: Keratoplasty + vitrectomy	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=3)	[61], [2], [1]					
No. Of clusters	3	0	0	0	0	0
No. Of studies	3	0	0	0	0	0
No. Of patients	2589	0	0	0	0	0
Multivariate analysis (n=1)		[61]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	1657	0	0	0	0

Combined surgery: Keratoplasty + retaining anterior IOL vs. Keratoplasty posterior chamber lens left in place	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[46]					
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	132	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Combined surgery: Triple procedure (yes vs. no)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=5)		[42], [8], [35]		[49]	[29], [39]	
No. Of clusters	0	3	0	1	2	0
No. Of studies	0	3	0	1	2	0
No. Of patients	0	609	0	53	497	0
Multivariate analysis (n=2)		[42]		[53]		
No. Of clusters	0	1	0	1	0	0
No. Of studies	0	1	0	1	0	0
No. Of patients	0	324	0	117	0	0

Combined surgery: Keratoplasty + ECCE	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=5)	[1]				[57]	
No. Of clusters	1	0	0	0	1	0
No. Of studies	1	0	0	0	1	0
No. Of patients	185	0	0	0	445	0
Multivariate analysis (n=2)					[57]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	445	0

Combined surgery: Keratoplasty + anterior segment reconstruction	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)	[2]	[57]				
No. Of clusters	1	1	0	0	0	0
No. Of studies	1	1	0	0	0	0
No. Of patients	747	445	0	0	0	0
Multivariate analysis (n=1)		[57]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	445	0	0	0	0

Combined surgery: Keratoplasty + secondary IOL	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[1]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	185	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Combined surgery: Keratoplasty + cataract extraction with IOL in ciliary sulcus vs. IOL in bag	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[5]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	36	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Half top-hat vs. regular PKP	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[21]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	87	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Zig Zag vs. top-hat in PKP	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[23]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	33	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Zig Zag with femtosecond vs. mechanical trephine in PKP	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[36]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	116	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Manual top-hat vs. regular PKP	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[18]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	71	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Manual half top-hat vs. top-hat PKP	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[21]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	87	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Width of the incision (large vs. small) in DSAEK or DLEK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[28]		[34]		
No. Of clusters	0	1	0	1	0	0
No. Of studies	0	1	0	1	0	0
No. Of patients	0	167	0	80	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Trephination with excimer vs. motor	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)					[8]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	170	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Busin Guide- assisted vs. forceps-assisted DSAEK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[20]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	63	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Forceps-assisted DSAEK vs. stitch- assisted	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[19]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	28	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Interrupted vs. interrupted + single continuous	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)				[56], [25]		
No. Of clusters	0	0	0	2	0	0
No. Of studies	0	0	0	2	0	0
No. Of patients	0	0	0	194	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Foreign vs. domestic donor grafts	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)		[9], [73]			[58]	
No. Of clusters	0	2	0	0	1	0
No. Of studies	0	2	0	0	1	0
No. Of patients	0	436	0	0	108	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Laterality: Left vs. right	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[75]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	155	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Graft diameter in PKP (large vs. small)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=6)	[3], [37], [75]			[56]	[4]	[12]
No. Of clusters	3	0	0	1	1	1
No. Of studies	3	0	0	1	1	1
No. Of patients	777	0	0	146	32	678
Multivariate analysis (n=2)	[75]		[16]			
No. Of clusters	1	0	1	0	0	0
No. Of studies	1	0	1	0	0	0
No. Of patients	155	0	25	0	0	0

Graft diameter in DSAEK (per mm increase)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[42]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	324	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Graft diameter in DALK (per mm increase)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)					[40]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	116	0

Graft oversize in PKP (large vs. small)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=3)	[56]			[26]	[12]	
No. Of clusters	1	0	0	1	1	0
No. Of studies	1	0	0	1	1	0
No. Of patients	146	0	0	186	678	0
Multivariate analysis (n=2)		[56]	[16]			
No. Of clusters	0	1	1	0	0	0
No. Of studies	0	1	1	0	0	0
No. Of patients	0	146	25	0	0	0

Size of malapposition	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)			[16]			
No. Of clusters	0	0	1	0	0	0
No. Of studies	0	0	1	0	0	0
No. Of patients	0	0	25	0	0	0

ANWAR big bubble technique	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)		[40]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	116	0	0	0	0

Sulfur hexafluoride SF6 20% vs. 100% air (bubble technique)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)		[66]			[55]	
No. Of clusters	0	1	0	0	1	0
No. Of studies	0	1	0	0	1	0
No. Of patients	0	854	0	0	44	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Rebubbling	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)					[32]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	57	0
Multivariate analysis (n=1)					[32]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	57	0

Intraoperative perforation of the Descemet membrane during DALK	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[41]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	540	0	0	0	0
Multivariate analysis (n=1)		[40]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	116	0	0	0	0

Postoperative risk factors

Type of steroid use: Prednisolone acetate 1% vs. dexamethasone 0.1%	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)	[40]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	116	0	0	0	0	0

Type of steroid use: Prednisolone acetate 1% vs. loteprednol etabonate 0.5%	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[31]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	167	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Type of steroid use: Prednisolone acetate 1% vs. Fluorometholone 0.1%	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[30]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	264	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Type of steroid use: Prednisolone acetate 0.12% vs. dexamethasone 0.1%	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)		[40]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	116	0	0	0	0

Duration of steroid use (longer use)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[32]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	57	0	0	0	0
Multivariate analysis (n=2)		[32]		[40]		
No. Of clusters	0	1	0	1	0	0
No. Of studies	0	1	0	1	0	0
No. Of patients	0	57	0	116	0	0

Ocular surgery after keratoplasty	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0
Multivariate analysis (n=1)		[40]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	116	0	0	0	0

Cataract surgery after keratoplasty	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[35]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	115	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Postoperative procedures or complications	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[42]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	324	0	0	0	0	0
Multivariate analysis (n=0)	[42]	[40]				
No. Of clusters	1	1	0	0	0	0
No. Of studies	1	1	0	0	0	0
No. Of patients	324	116	0	0	0	0

Postoperative corneal oedema vs. corneal scar	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)	[33]†	[33]††				
No. Of clusters	1	1	0	0	0	0
No. Of studies	1	1	0	0	0	0
No. Of patients	729	729	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

[33]† late post-op (not further specified); †† early post-op (not further specified)

Postoperative graft failure/rejection	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)					[45]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	362	0
Multivariate analysis (n=1)		[40]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	116	0	0	0	0

Postoperative graft status: Clear graft vs. graft with bullous keratoplasty	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[39]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	46	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Postoperative presence of peripheral anterior synechiae	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)					[70]	
No. Of clusters	0	0	0	0	1	0
No. Of studies	0	0	0	0	1	0
No. Of patients	0	0	0	0	132	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Graft clarity (high to low clarity)	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)				[75]		
No. Of clusters	0	0	0	1	0	0
No. Of studies	0	0	0	1	0	0
No. Of patients	0	0	0	155	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Pre- and postoperative risk factor

pre- and postoperative: Presence of peripheral anterior synechiae	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)		[48]				
No. Of clusters	0	1	0	0	0	0
No. Of studies	0	1	0	0	0	0
No. Of patients	0	160	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Pre-or intraoperative risk factor not specified

Aphakic vs. phakic: Status pre- or intraoperative not defined	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)	[61], [1]					
No. Of clusters	2	0	0	0	0	0
No. Of studies	2	0	0	0	0	0
No. Of patients	1842	0	0	0	0	0
Multivariate analysis (n=1)	[61]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	1657	0	0	0	0	0

IOL in anterior chamber vs. Phakic: Status pre- or intraoperative not defined	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[61]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	1657	0	0	0	0	0
Multivariate analysis (n=1)	[61]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	1657	0	0	0	0	0

IOL in posterior chamber vs. Phakic: Status pre- or intraoperative not defined	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[61]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	1657	0	0	0	0	0
Multivariate analysis (n=1)	[61]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	1657	0	0	0	0	0

Pseudophakic vs. phakic: Status pre- or intraoperative not defined	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=1)	[1]					
No. Of clusters	1	0	0	0	0	0
No. Of studies	1	0	0	0	0	0
No. Of patients	185	0	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

Aphakic or pseudophakic vs. phakic: Status pre- or intraoperative not defined	Increased risk for OHT		Direction of the relation is unknown		Decreased risk for OHT	
	Significant	Non-significant	Significant	Non-significant	Non-significant	Significant
Univariate analysis (n=2)	[12]	[34]				
No. Of clusters	1	1	0	0	0	0
No. Of studies	1	1	0	0	0	0
No. Of patients	678	80	0	0	0	0
Multivariate analysis (n=0)						
No. Of clusters	0	0	0	0	0	0
No. Of studies	0	0	0	0	0	0
No. Of patients	0	0	0	0	0	0

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