Supplemental material

Table S1: Search terms used in PubMed

Complication	Search terms PubMed (from 1900-01-01 to 2019-06-01; species: humans; language: English)
Myopic Macular Degeneration	("Myopia"[Mesh] OR "Myopia, Degenerative"[Mesh]) AND ("Cohort Studies"[Mesh] OR “Prevalence”[Mesh] OR “Incidence”[Mesh] OR “Case-Control Studies”[Mesh] OR “Cross-Sectional Studies”[Mesh]) AND ("Aged"[Mesh] OR "Middle Aged"[Mesh] OR “Adult”[Mesh]) AND ("Retinal Diseases"[Mesh])
Retinal Detachment	("Myopia"[Mesh] OR "Myopia, Degenerative"[Mesh]) AND ("Cohort Studies"[Mesh] OR “Prevalence”[Mesh] OR “Incidence”[Mesh] OR “Case-Control Studies”[Mesh] OR “Cross-Sectional Studies”[Mesh]) AND ("Aged"[Mesh] OR "Middle Aged"[Mesh] OR “Adult”[Mesh]) AND ("Retinal Detachment"[Mesh])
Cataract	("Myopia"[Mesh] OR "Myopia, Degenerative"[Mesh]) AND ("Cohort Studies"[Mesh] OR “Prevalence”[Mesh] OR “Incidence”[Mesh] OR “Case-Control Studies”[Mesh] OR “Cross-Sectional Studies”[Mesh]) AND ("Aged"[Mesh] OR "Middle Aged"[Mesh] OR “Adult”[Mesh]) AND ("Cataract"[Mesh])
Open Angle Glaucoma	("Myopia"[Mesh] OR "Myopia, Degenerative"[Mesh]) AND ("Cohort Studies"[Mesh] OR “Prevalence”[Mesh] OR “Incidence”[Mesh] OR “Case-Control Studies”[Mesh] OR “Cross-Sectional Studies”[Mesh]) AND ("Aged"[Mesh] OR "Middle Aged"[Mesh] OR “Adult”[Mesh]) AND "Glaucoma"[Mesh]

Table S2: Myopic Macular Degeneration classifications and definitions

Classification	Definition	Author (year)	Imaging
a	At least 1 of the following features: staphyloma, lacquer cracks, Fuchs' spot, or chorioretinal atrophy	Vongphanit et al. (2002)	Fundus photographs
b	M0, normal appearing posterior pole; M1, tessellation and choroidal pallor pattern; M2, posterior staphyloma; M3, lacquer cracks; M4, choroidal atrophy; M5, geographic atrophy and CNV	Avila et al. (1984)	Fundus photographs
c	1: tessellated fundus, 2; diffuse chorioretinal atrophy, 3: patchy chorioretinal atrophy, 4: macular atrophy, and 'plus' lesions: lacquer cracks, myopic CNV and/or Fuchs spot. MMD was defined as ≥2.	Ohno-Matsui et al. (2015)	Fundus photographs
d	At least 1 of the following features: diffuse chorioretinal atrophy at the posterior pole, patchy chorioretinal atrophy, lacquer cracks, or macular atrophy	Hayashi et al. (2010)	Fundus photographs

Table S3: Prevalence of Myopic Macular Degeneration in high myopia studies

Author	Country	Ethnicity	Age, years*	SER (D)*	MMD	MMD definition (Table S1)
Chen et al. (2012)	China	Chinese	40.6±17.1 (8-88)	-11.4±4.8	64.0%	c (≥2 excluding tessellation)
Lai et al. (2008)	Hong Kong	Chinese	36.0±12.2 (>18)	-10.2±4.0	11.3%	a (excluding tessellation)
Chang et al. (2013)	Singapore	Chinese, Malay and Indian	- (>39)	-	90.0%	b (≥M1; including tessellation)
Koh et al. (2016)	Singapore	Chinese	21.1±1.2 (19-25)	-8.9±2.1	8.3%	c (≥2 excluding tessellation)
Xiao et al. (2018)	China	Chinese	18.5 (7-70)	- 8.9 (-11.50, -7.63) †	43.0%	c (≥2 excluding tessellation)
Zhao et al. (2018)	China	Chinese	47.5±14.6 (>18)	-14.4±5.2	54.5%	c (≥2 excluding tessellation)

* Mean±standard deviation (range); SER = spherical equivalent of refraction; D = dioptre; MMD = myopic macular degeneration.

† 25^{th} percentile, 75^{th} percentile

Table S4: Best corrected visual acuity (LogMAR) in eyes with and without myopic macular degeneration

Author	Country	Age, years (mean)	BCVA with MMD (mean)	BCVA without MMD (mean)	P-value
Vongphanit et al. (2002)	Australia	48.5	0.3	0.1	<0.001
Liu et al. (2010)	China	56.9	0.25	0.06	<0.001
Gao et al. (2011)	Rural China	51.9	0.3	0.1	<0.001
Chen et al. 2012)	Taiwan	72.2	0.72	0.27	0.001
Jonas et al. (2017)	Rural India	49.0	1.38	0.11	<0.001
Shih et al. (2006)	Taiwan	56.1	0.94	0.33	0.007
Lichtwitz et al. (2016)	France	60.0	0.74	0.25	<0.001
Zhao et al. (2018)	China	47.5	0.62	0.17	<0.001

BCVA = best corrected visual acuity, measured in logMAR

Table S5 Characteristics of the studies investigating the relationship between retinal detachment and cataract extraction

Study	Study type	Follow up time (months)	Type of CE	Total participants (number of myopes)	RD in myopes (%)	RD in emmetropes (%)	OR (95%CI)	Age, years*	Refractive error / axial length (D/mm) *
Jeon et al. 2011	Case control study	7.27±±2.16	phaco	694†(347)	6 (1.7)	1 (0.28)	6.1 (0.7-50.8)	53.5±11.8	28.69±1.94 (case) 23.06±±2.17 (control)
Tsai et al. 2008	Case series	5.1-10.8	ECCE with IOL, phaco met IOL	52 (52)	2 (3.84)	-	-	61.3±13.2	28.22±1.64
Ku et al. 2002	Case series	6 - 82	ECCE with IOL, phaco met IOL	125 (125)	2 (1.60)	-	-	61.58±12.27	28.45±±3.41 (ECCE) 28.45±±3.03 (phaco)
Fan et al. 1999	Case series	12 -89	ECCE with IOL, phaco met IOL	118 (118)	2 (1.69)	-	-	59.8±13.8	30.13±±2.08
Alldredge et al. 1998	Retrospective case series	9- 77	phaco	80 (80)	0	-	-	61.0 (33-85)	-10.0D (-7.0D to -18.4D)

Gross et al. 1987	Retrospective case series	±±3-36	ECCE with IOL	117 (117)	1 (0.85)	-	-	69.2	-10.0D±1.08
Ripandelli et al. 2003	Retrospective, paired-eye, case–control trial.	36 months	ECCE	1860 ‡ (930)	74 (7.96)	11 (1.18)	7.2 (3.8-13.7*)	62.5±8.5	-20.7D±4.2 (ECCE) -21.0D±3.8 (control)

* Mean±standard deviation (range); †emmetropes as control group; ‡myopes without cataract extraction as controls; CE = cataract extraction; ECCE = extracapsular cataract extraction; RD = retinal detachment; D = diopter; mm = millimeters

Table S6 Characteristics of the studies investigating the relationship between myopia and open angle glaucoma progression

Authors	Study type	Country	Total number of participants (number of myopes)	Male Gender (%)	Age (years)*	SER myopes (D)*	SER non-myopes (D)*	Follow-up, years*	Measurement modality of VF
Ohno-Matsui et al. (2011)	Retrospective, observational series	Japanese	492 (492)	41.5	40.6±16.6	-13.4 (4.1)	-	10.2±3.4	Goldmann kinetic perimetry
Perdicchi et al. (2007)	Retrospective study	Italian	294 (264)	47.3	56.7±12.8	NA (+1.75 to >-3D)	+8 to +2	- (2-5.3)	Octopus 30° central field
Lee et al. (2008)	Retrospective study	Taiwan	176 (176) 76	48.1	48.6±14.2	NA (-3D to <-9D)	-	8.7±2.2	Humphrey perimeter, 30-2 SITA standard program
Doshi et al. (2007)	Retrospective case series	Chinese	14 (14)	100	38.9 (25-66)	≤-6	-	9.8±2.7	Static automated white on white threshold perimetry (SITA standard)
Chul Han et al. (2016)	Retrospective comparative longitudinal cohort study	Korean	232 (150)		45.7±11.8	-4.5 (2.7)	-1.2 (2.3)	9.9±2.6	Humphrey Field Analyzer
Yoshino et al. (2016)	Retrospective matched case control study	Japanese	140 (70)	56.6	48.8±10.2	-9.77 (2.50)	-1.62 (2.37)	9.48±4.18	Humphrey Field Analyzer
Park et al. (2016)	prospective observational study	Korean	179 (101)	45.8	70.2±15.8	-3.8 (3.46)	0.1±1.26	6.4±1.0	Humphrey VF examination

Lee et al. (2015)	Retrospective cohort study	Korean	369 (191) 151	52.0	61.4±12.1	-1.77 (1.45) to -9.21 (3.57)	0.71±1.04	4.4	Humphrey Field Analyzer

*mean±standard deviation (range); SER = spherical equivalent of refraction; VF = Visual Field; D = Diopters