

**Appendix Table A4.** Summary of characteristics of the selected studies.

<b>First Author (year)</b>	<b>Country</b>	<b>Date of study</b>	<b>Population size</b>	<b>Age, y</b>	<b>PACG definition</b>	<b>PACG cases</b>	<b>study design</b>
Chen et al. (2013) <sup>A1</sup>	China	2009-2010	190	≥40	Angle+Fundus photograph	90	cross-sectional
Congdon et al. (1996) <sup>A2</sup>	China	NA	562	≥40	Angle+IOP+Fundus photograph	17	cross-sectional
Shen et al. (2021) <sup>A3</sup>	China	2018-2019	100	NA	Angle+IOP+Fundus photograph	51	cross-sectional
Chen et al. (2013) <sup>A4</sup>	China	NA	53	NA	Angle+IOP+Fundus photograph	16	cross-sectional
Dandona et al. (2000) <sup>A5</sup>	India	1996-1997	2954	1-102	Angle+IOP+Fundus photograph	12	cross-sectional
George et al. (2003) <sup>A6</sup>	India	NA	441	≥40	Angle+IOP+Fundus photograph	22	cross-sectional
Kiuchi et al. (2013) <sup>A7</sup>	Japan	2006-2008	1589	NA	Angle+IOP+Fundus photograph	50	cross-sectional
Kiuchi et al. (2019) <sup>A8</sup>	Japan	2006-2008	1462	NA	Angle+IOP+Fundus photograph	18	cross-sectional
Li et al. (2020) <sup>A9</sup>	China	2016-2018	351	NA	Angle+IOP+Fundus photograph	200	cross-sectional
Li et al. (2020) <sup>A10</sup>	China	2016-2017	183	NA	Angle+IOP+Fundus photograph	94	cross-sectional
Lin et al. (2021) <sup>A11</sup>	China	2016-2018	351	NA	Angle+IOP+Fundus photograph	200	cross-sectional
Huang et al. (2021) <sup>A12</sup>	China	2014-2017	114	NA	ISGEO	64	cross-sectional
Kim et al. (2012) <sup>A13</sup>	Korea	2006-2007	1390	≥40	ISGEO	10	cross-sectional
Ko et al. (2015) <sup>A14</sup>	China	2006-2007	193	≥72	ISGEO	18	cross-sectional
Qu et al. (2011) <sup>A15</sup>	China	2007	3525	≥40	ISGEO	78	cross-sectional
Vijaya et al. (2006) <sup>A16</sup>	India	2001-2003	3660	≥40	ISGEO	34	cross-sectional
Yang et al. (2021) <sup>A17</sup>	China	2017-2018	33701	≥40	ISGEO	328	cross-sectional
Yip et al. (2011) <sup>A18</sup>	Mongolian	1999-2005	1892	≥50	ISGEO	29	cross-sectional
Zhou et al. (2014) <sup>A19</sup>	China	2011-2013	143	>18	ISGEO	56	cross-sectional
Lin et al. (2021) <sup>A20</sup>	China	2018-2019	68	≥50	Angle+IOP+Fundus photograph	41	cross-sectional
Hou et al. (2020) <sup>A21</sup>	China	2018	69	NA	Angle+Fundus photograph	30	case-control
Van Romund et al. (2013) <sup>A22</sup>	Netherlands	2008-2012	351	NA	Angle+Fundus photograph	117	case-control
Abu-Amro et al. (2014) <sup>A23</sup>	Saudi Arabia	NA	288	≥40	Angle+IOP+Fundus photograph	139	case-control
Chang et al. (2011) <sup>A24</sup>	China	NA	100	NA	Angle+IOP+Fundus photograph	50	case-control

Li et al. (2017) <sup>A25</sup>	China	2010-2015	1778	NA	Angle+IOP+Fundus photograph	865	case-control
Li et al. (2017) <sup>A26</sup>	China	2013-2016	395	≥33	Angle+IOP+Fundus photograph	237	case-control
Li et al. (2017) <sup>A27</sup>	China	2010-2015	1880	NA	Angle+IOP+Fundus photograph	886	case-control
Shao et al. (2021) <sup>A28</sup>	China	2018-2020	562	NA	Angle+IOP+Fundus photograph	320	case-control
Park et al. (2019) <sup>A29</sup>	Korea	2002-2013	5585	NA	ICD10-H40.2	1167	case-control
Chen & Lin (2019) <sup>A30</sup>	China	2000	16610	NA	ICD9-365.2	3322	case-control
Shen et al. (2016) <sup>A31</sup>	USA	2008-2014	405737	≥35	ICD9-365.2	2339	case-control
Symes et al. (2015) <sup>A32</sup>	USA	2006-2014	17094	NA	ICD9-365.22	1554	case-control
Lei et al. (2020) <sup>A33</sup>	China	2017	200	≥18	ISGEO	100	case-control
Lei et al. (2020) <sup>A34</sup>	China	2017	200	≥18	ISGEO	100	case-control
Seitz et al. (2012) <sup>A35</sup>	Canada	1998-2010	6470	≥66	Physician billing claims	6470	case-control
Saxena et al. (1993) <sup>A36</sup>	India	1990-1991	140	>40	Angle+IOP+Medical history	70	case-control
Karahan et al. (2021) <sup>A37</sup>	Turkey	2010-2019	122	≥40	Angle+IOP+Fundus photogragh	22	case-control
Moon et al. (2021) <sup>A38</sup>	Korea	2007-2015	32865	NA	ICD10-H40.2	39	cohort
Zoller et al. (2016) <sup>A39</sup>	Sweden	1997-2010	9036	all	ICD10-H40.2	1498	cohort
Chau et al. (2019) <sup>A40</sup>	China	2000-2005	32530	NA	ICD9&10	NA	cohort
Lim et al. (2020) <sup>A41</sup>	China	1997-2013	NA	NA	ICD9&10	NA	cohort
Chien et al. (2019) <sup>A42</sup>	China	2000-2016	47058	NA	ICD-9/ICD-10	NA	cohort
Chen et al. (2016) <sup>A43</sup>	China	2000-2010	88029	NA	ICD9-365.2	405	cohort
Sun et al. (2020) <sup>A44</sup>	China	2000-2013	388180	≥20	ICD9-365.2	1264	cohort
Lee et al. (2010) <sup>A45</sup>	USA	1991-2006	2700	NA	ICD9-365.2x	30	cohort

PACG = primary angle-closure glaucoma; IOP = intraocular pressure; ISGEO = International Society of Geographical and Epidemiological Ophthalmology; ICD = International Classification of Diseases; NA = not available

## APPENDICES REFERENCES

- A1. Chen YY, Chen YY, Sheu SJ, Chou P. The Biometric Study in Different Stages of Primary Angle-Closure Glaucoma. *Eye (Lond)* 2013;27:1070-6.
- A2. Congdon NG, Quigley HA, Hung PT, et al. Screening Techniques for Angle-Closure Glaucoma in Rural Taiwan. *Acta Ophthalmol Scand* 1996;74:113-9.
- A3. Shen RY, Wang YM, Cheung CY, et al. Comparison of Optical Coherence Tomography Angiography Metrics in Primary Angle-Closure Glaucoma and Normal-Tension Glaucoma. *Sci Rep* 2021;11:23136.
- A4. Chen HY, Chang YC, Chen WC, Lane HY. Association between Plasma Endothelin-1 and Severity of Different Types of Glaucoma. *J Glaucoma* 2013;22:117-22.
- A5. Dandona L, Dandona R, Mandal P, et al. Angle-Closure Glaucoma in an Urban Population in Southern India. The Andhra Pradesh Eye Disease Study. *Ophthalmology* 2000;107:1710-6.
- A6. George R, Paul PG, Baskaran M, et al. Ocular Biometry in Occludable Angles and Angle Closure Glaucoma: A Population Based Survey. *Br J Ophthalmol* 2003;87:399-402.
- A7. Kiuchi Y, Yokoyama T, Takamatsu M, et al. Glaucoma in Atomic Bomb Survivors. *Radiat Res* 2013;180:422-30.
- A8. Kiuchi Y, Yanagi M, Itakura K, et al. Association between Radiation, Glaucoma Subtype, and Retinal Vessel Diameter in Atomic Bomb Survivors. *Sci Rep* 2019;9:8642.
- A9. Li S, Zhang H, Shao M, et al. Association between 17-B-Estradiol and Interleukin-8 and Visual Field Progression in Postmenopausal Women with Primary Angle Closure Glaucoma. *Am J Ophthalmol* 2020;217:55-67.
- A10. Li S, Shao M, Li Y, et al. Relationship between Oxidative Stress Biomarkers and Visual Field Progression in Patients with Primary Angle Closure Glaucoma. *Oxid Med Cell Longev* 2020;2020:2701539.

- A11. Lin YD, Ma D, Wang HX, et al. Spatial Positional Relationship between Macular Superficial Vessel Density and Ganglion Cell-Inner Plexiform Layer Thickness in Primary Angle Closure Glaucoma. *Int Ophthalmol* 2021;42:103-12.
- A12. Huang W, Li X, Gao X, Zhang X. The Anterior and Posterior Biometric Characteristics in Primary Angle-Closure Disease: Data Based on Anterior Segment Optical Coherence Tomography and Swept-Source Optical Coherence Tomography. *Indian J Ophthalmol* 2021;69:865-70.
- A13. Kim YY, Lee JH, Ahn MD, et al. Angle Closure in the NAMIL Study in Central South Korea. *Arch Ophthalmol* 2012;130:1177-83.
- A14. Ko YC, Liu CJ, Hsu WM, et al. Determinants and Characteristics of Angle-Closure Disease in an Elderly Chinese Population. *Ophthalmic Epidemiol* 2015;22:109-15.
- A15. Qu W, Li Y, Song W, et al. Prevalence and Risk Factors for Angle-Closure Disease in a Rural Northeast China Population: A Population-Based Survey in Bin County, Harbin. *Acta Ophthalmol* 2011;89:e515-20.
- A16. Vijaya L, George R, Arvind H, et al. Prevalence of Angle-Closure Disease in a Rural Southern Indian Population. *Arch Ophthalmol* 2006;124:403-9.
- A17. Yang X, Yang Z, Liu Y, et al. The Association between Long-Term Exposure to Ambient Fine Particulate Matter and Glaucoma: A Nation-Wide Epidemiological Study among Chinese Adults. *Int J Hyg Environ Health* 2021;238:113858.
- A18. Yip JL, Nolan WP, Davaatseren U, et al. Primary Angle Closure Glaucoma in East Asia: Educational Attainment as a Protective Factor. *Ophthalmic Epidemiol* 2011;18:217-25.
- A19. Zhou M, Wang W, Huang W, et al. Is Increased Choroidal Thickness Association with Primary Angle Closure? *Acta Ophthalmol* 2014;92:e514-e20.
- A20. Lin Y, Chen S, Zhang M. Peripapillary Vessel Density Measurement of Quadrant and Clock-Hour Sectors in Primary Angle Closure Glaucoma Using Optical Coherence

- Tomography Angiography. *BMC Ophthalmol* 2021;21:328.
- A21. Hou TY, Kuang TM, Ko YC, et al. Optic Disc and Macular Vessel Density Measured by Optical Coherence Tomography Angiography in Open-Angle and Angle-Closure Glaucoma. *Sci Rep* 2020;10:5608.
- A22. van Romunde SH, Thepass G, Lemij HG. Is Hyperopia an Important Risk Factor for PACG in the Dutch Population?-A Case Control Study. *J Ophthalmol* 2013;2013:630481.
- A23. Abu-Amro KK, Azad TA, Mousa A, et al. Total Antioxidant Level Is Correlated with Intra-Ocular Pressure in Patients with Primary Angle Closure Glaucoma. *BMC Res Notes* 2014;7:163.
- A24. Chang D, Sha Q, Zhang X, et al. The Evaluation of the Oxidative Stress Parameters in Patients with Primary Angle-Closure Glaucoma. *PLoS ONE* 2011;6:e27218.
- A25. Li S, Gao Y, Shao M, et al. Association between Coagulation Function and Patients with Primary Angle Closure Glaucoma: A 5-Year Retrospective Case-Control Study. *BMJ Open* 2017;7:e016719.
- A26. Li S, Chen Y, Shao M, et al. Association of Plasma Complement C3 Levels with Primary Angle-Closure Glaucoma in Older Women. *Invest Ophthalmol Vis Sci* 2017;58:682-9.
- A27. Li S, Shao M, Tang B, et al. The Association between Serum Uric Acid and Glaucoma Severity in Primary Angle Closure Glaucoma: A Retrospective Case-Control Study. *Oncotarget* 2017;8:2816-24.
- A28. Shao M, Li Y, Teng J, et al. Association between Serum Lipid Levels and Patients with Primary Angle-Closure Glaucoma in China: A Cross Sectional, Case-Control Study. *Front Med (Lausanne)* 2021;8:618970.
- A29. Park MY, Kim WJ, Lee E, et al. Association between Use of Benzodiazepines and Occurrence of Acute Angle-Closure Glaucoma in the Elderly: A Population-Based

- Study. *J Psychosom Res* 2019;122:1-5.
- A30. Chen HY, Lin CL. Comparison of Medical Comorbidity between Patients with Primary Angle-Closure Glaucoma and a Control Cohort: A Population-Based Study from Taiwan. *BMJ Open* 2019;9:e024209.
- A31. Shen L, Melles RB, Metlapally R, et al. The Association of Refractive Error with Glaucoma in a Multiethnic Population. *Ophthalmology* 2016;123:92-101.
- A32. Symes RJ, Etminan M, Mikelberg FS. Risk of Angle-Closure Glaucoma with Bupropion and Topiramate. *JAMA Ophthalmol* 2015;133:1187-9.
- A33. Lei Y, Gao Y, Song M, et al. Retrospective Case-Control Data of Serum Nitrotyrosine Level and Clinical Biomedical Indices in Primary Glaucoma Patients. *Data Brief* 2020;31:105706.
- A34. Lei Y, Gao Y, Song M, et al. Peroxynitrite Is a Novel Risk Factor and Treatment Target of Glaucoma. *Nitric Oxide - Biol Ch* 2020;99:17-24.
- A35. Seitz DP, Campbell RJ, Bell CM, et al. Short-Term Exposure to Antidepressant Drugs and Risk of Acute Angle-Closure Glaucoma among Older Adults. *J Clin Psychopharm* 2012;32:403-7.
- A36. Saxena S, Agrawal PK, Pratap VB, Nath R. Anterior Chamber Depth and Lens Thickness in Primary Angle-Closure Glaucoma: A Case-Control Study. *Indian J Ophthalmol* 1993;41:71-3.
- A37. Karahan M, Kilic D, Guven S. Systemic Inflammation in Both Open-Angle and Angle-Closure Glaucoma: Role of Platelet-to-Lymphocyte Ratio. *Bratisl Med* 2021;122:45-8.
- A38. Moon JJ, Kim YW, Oh BL, et al. Nationwide Glaucoma Incidence in End Stage Renal Disease Patients and Kidney Transplant Recipients. *Sci Rep* 2021;11:7418.
- A39. Zoller B, Li X, Sundquist J, Sundquist K. Venous Thromboembolism Does Not Share Familial Susceptibility with Retinal Vascular Occlusion or Glaucoma: A Nationwide Family Study. *J Thromb Thrombolys* 2016;42:505-12.

- A40. Chau SF, Wu PH, Sun CC, et al. The Development of Glaucoma after Surgery-Indicated Chronic Rhinosinusitis: A Population-Based Cohort Study. *Int J Environ Res Public Health* 2019;16:4456.
- A41. Lim CC, Lee CY, Huang FC, et al. Risk of Glaucoma in Patients Receiving Hemodialysis and Peritoneal Dialysis: A Nationwide Population-Based Cohort Study. *Int J Env Res Pub Health* 2020;17:6774.
- A42. Chien HW, Wu PH, Wang K, et al. Increased Incidence of Glaucoma in Sensorineural Hearing Loss: A Population-Based Cohort Study. *Int J Env Res Pub Health* 2019;16:2907.
- A43. Chen HY, Lin CL, Kao CH. Does Migraine Increase the Risk of Glaucoma?: A Population-Based Cohort Study. *Medicine* 2016;95:e3670.
- A44. Sun KT, Shen TC, Chen SC, et al. Periodontitis and the Subsequent Risk of Glaucoma: Results from the Real-World Practice. *Sci Rep* 2020;10:17568.
- A45. Lee MS, Harrison AR, Grossman DS, Sloan FA. Risk of Glaucoma among Patients with Benign Essential Blepharospasm. *Ophthal Plast Reconstr* 2010;26:434-7.