

DAFTAR PUSTAKA

1. Jafer Chardoub AA, Blair K. Juvenile Glaucoma. [Updated 2022 Dec 26]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023 Jan. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK562263/>
2. Ciociola EC, Klifto MR. Juvenile open angle glaucoma: current diagnosis and management. *Curr Opin Ophthalmol.* 2022;33(2):97-102. doi:10.1097/ICU.0000000000000813
3. Kwun Y, Lee EJ, Han JC, Kee C. Clinical Characteristics of Juvenile-onset Open Angle Glaucoma. *Korean J Ophthalmol.* 2016;30(2):127-133. doi:10.3341/kjo.2016.30.2.127
4. Smith CA, Vianna JR, Chauhan BC. Assessing retinal ganglion cell damage. *Eye (Lond).* 2017;31(2):209-217. doi:10.1038/eye.2016.295,
5. Munemasa Y, Kitaoka Y. Molecular mechanisms of retinal ganglion cell degeneration in glaucoma and future prospects for cell body and axonal protection. *Front Cell Neurosci.* 2013;6:60. Published 2013 Jan 9. doi:10.3389/fncel.2012.00060
6. Downs JC, Girkin CA. Lamina cribrosa in glaucoma. *Curr Opin Ophthalmol.* 2017;28(2):113-119. doi:10.1097/ICU.0000000000000354
7. Vajaranant TS, Pasquale LR. Estrogen deficiency accelerates aging of the optic nerve. *Menopause.* 2012;19(8):942-947. doi:10.1097/gme.0b013e3182443137,
8. Park SC, Brumm J, Furlanetto RL, et al. Lamina cribrosa depth in different stages of glaucoma. *Invest Ophthalmol Vis Sci.* 2015;56(3):2059-2064. Published 2015 Feb 26. doi:10.1167/iovs.14-15540
9. Ulhaq ZS. The association of estrogen-signaling pathways and susceptibility to open-angle glaucoma. *Beni-Suef Univ J Basic Appl Sci.* 2020; 9(7). <https://doi.org/10.1186/s43088-020-0034-8>
10. Prokai-Tatrai K, Xin H, Nguyen V, et al. 17 β -estradiol eye drops protect the retinal ganglion cell layer and preserve visual function in an in vivo model of glaucoma. *Mol Pharm.* 2013;10(8):3253-3261. doi:10.1021/mp400313u
11. Karmel M (2014). Glaucoma in Women: the estrogen connection. American Academy of Ophthalmology. Diakses pada Agustus 2023. <https://www.aao.org/eyenet/article/glaucoma-in-women-estrogen-connection-2#>
12. Fathy M, Noureldine A, Elmofty HM, et al. The effect of postmenopausal hormonal drop on optic nerve head and peripapillary perfusion using optical coherence tomography angiography (OCTA). *Sci Rep.* 2022;12(1):18185. Published 2022 Oct 28. doi:10.1038/s41598-022-22844-3
13. Clark AL, Slayden OD, Hettrich K, et al. Estrogen increases collagen I and III mRNA expression in the pelvic support tissues of the rhesus macaque. *Am J Obstet Gynecol.* 2005;192(5):1523-1529. doi:10.1016/j.ajog.2004.11.042
14. Walton DS. The childhood glaucomas in Clinical Glaucoma Care. New York: Springer : Science Business Media. 2014. p.123-125.

15. Tanna AP, Boland MV, Giacconi JA, et al. Glaucoma in children and adolescent. In: Glaucoma. Basic and Clinical Science Course: American Academy of Ophthalmology. 2022. p. 197.
16. American Academy of Ophthalmology. Juvenile open angle glaucoma. Diakses pada Agustus 2023. Available from: https://eyewiki.aao.org/Juvenile_Open_Angle_Glaucoma#:~:text=The%20estimated%20prevalence%20of%20JOAG,comprises%204%25%20of%20childhood%20glaucomas.
17. Kwon YH, Fingert JH, Kuehn MH, et al. Primary open-angle glaucoma. *N Engl J Med.* 2009;360(11):1113-1124. doi:10.1056/NEJMra0804630
18. Yildiz A. OCT in Glaucoma Diagnosis, Detection and Screening. IntechOpen. 2018: 155-75.
19. Kim US, Mahroo OA, Mollon JD, et al. Retinal Ganglion Cells-Diversity of Cell Types and Clinical Relevance. *Front Neurol.* 2021;12:661938. Published 2021 May 21. doi:10.3389/fneur.2021.661938
20. Nordmann JP. OCT and Optic Nerve. France: Laboratoire Thea. 2020. p.25
21. Yum HR, Park HL, Park CK. Characteristics of Normal-tension Glaucoma Patients with Temporal Retinal Nerve Fibre Defects. *Sci Rep.* 2020;10(1):6362. Published 2020 Apr 14. doi:10.1038/s41598-020-63486-7
22. Januleviciene I, Harris A. Biophysical Properties in Glaucoma. Switzerland: Springer Nature. 2019. p.124-126.
23. Grytz R, Meschke G, Jonas JB, et al. Glaucoma and Structure-Based Mechanics of the Lamina Cribrosa at Multiple Scales. In: Kassab, G., Sacks, M. (eds) Structure-Based Mechanics of Tissues and Organs. Springer, Boston, MA. 2016. https://doi.org/10.1007/978-1-4899-7630-7_6
24. Kim JA, Kim TW, Lee EJ, et al. Intereye Comparison of Lamina Cribrosa Curvature in Normal Tension Glaucoma Patients With Unilateral Damage. *Invest Ophthalmol Vis Sci.* 2019;60(7):2423-2430. doi:10.1167/iovs.19-26828
25. Wei X, Cai SP, Zhang X, et al. Is low dose of estrogen beneficial for prevention of glaucoma? *Med Hypotheses.* 2012;79(3):377-380. doi:10.1016/j.mehy.2012.05.041
26. Wu M, Cronin K, Crane JS. Biochemistry: Collagen Synthesis. NCBI Bookshelf. A service of the National Library of Medicine, National Institutes of Health. StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2023.
27. Hamilton KJ, Hewitt SC, Arao Y, et al. Estrogen Hormone Biology. *Curr Top Dev Biol.* 2017;125:109-146. doi:10.1016/bs.ctdb.2016.12.005,
28. Maioli S, Leander K, Nilsson P, et al. Estrogen receptors and the aging brain. *Essays Biochem.* 2021;65(6):913-925. doi:10.1042/EBC20200162
29. Marin-Castaño ME, Elliot SJ, Potier M, et al. Regulation of estrogen receptors and MMP-2 expression by estrogens in human retinal pigment epithelium. *Invest Ophthalmol Vis Sci.* 2003;44(1):50-59. doi:10.1167/iovs.01-1276

30. Shu YY, Maibach HI. Estrogen and skin: therapeutic options. *Am J Clin Dermatol.* 2011;12(5):297-311. doi:10.2165/11589180-000000000-00000
31. Kazama S, Kazama JJ, Ando N. Eye diseases in women. *Fukushima J Med Sci.* 2019;65(2):30-36. doi:10.5387/fms.2019-01
32. Youngblood HA, Parker E, Cai J, et al. Identification of Estrogen Signaling in a Prioritization Study of Intraocular Pressure-Associated Genes. *Int J Mol Sci.* 2021 Oct; 22(19): 10288. doi: 10.3390/ijms221910288
33. Means JC, Lopez AA, Koulen P. Estrogen Protects Optic Nerve Head Astrocytes Against Oxidative Stress by Preventing Caspase-3 Activation, Tau Dephosphorylation at Ser⁴²²and the Formation of Tau Protein Aggregates. *Cell Mol Neurobiol.* 2021;41(3):449-458. doi:10.1007/s10571-020-00859-6
34. Nuzzi R, Scalabrin S, Becco A, et al. Sex Hormones and Optic Nerve Disorders: A Review. *Front Neurosci.* 2019;13:57. Published 2019 Feb 11. doi:10.3389/fnins.2019.00057
35. Pietrucha-Dutczak M, Amadio M, Govoni S, et al. The Role of Endogenous Neuroprotective Mechanisms in the Prevention of Retinal Ganglion Cells Degeneration. *Front. Neurosci.* 2018;12:834. doi: 10.3389/fnins.2018.00834
36. Qiu Y, Yu J, Tang L, Ren J, et al. Association Between Sex Hormones and Visual Field Progression in Women With Primary Open Angle Glaucoma: A Cross-Sectional and Prospective Cohort Study. *Front. Aging Neurosci.* 2021;13:756186. doi: 10.3389/fnagi.2021.756186
37. Jiang M, Ma X, Zhao Q, et al. The neuroprotective effects of novel estrogen receptor GPER1 in mouse retinal ganglion cell degeneration. *Exp Eye Res.* 2019;189:107826. doi:10.1016/j.exer.2019.107826
38. Nixon E, Simpkins JW. Neuroprotective effects of nonfeminizing estrogens in retinal photoreceptor neurons. *Invest Ophthalmol Vis Sci.* 2012;53(8):4739-4747. Published 2012 Jul 12. doi:10.1167/iovs.12-9517
39. Spoerl E, Zubaty V, Boehm A, et al. Estrogen Improves Distensibility of the Lamina Cribrosa. *Invest. Ophthalmol. Vis. Sci.* 2007;48(13):3299.
40. Dong ZM, Wollstein G, Schuman JS. Clinical utility of optical coherence tomography in glaucoma. *Investig Ophthalmol Vis Sci.* 2016; p. 556-67.
41. Yadav N, Sahai A, Sharma RK, et al. Reliability of OCT Assisted RNFL Thickness In diagnosing Glaucoma In High Myopia. *DJO* 2020;31: 47-50.
42. Al Saad M, Shehadeh A, Meqbil J, et al. Relationship Between Central Corneal Thickness and Ganglionic-Inner Plexiform Cell Layer and Retinal Nerve Fibre Layer Thickness in Normal Subjects. *Clin Ophthalmol.* 2021 Apr 28;15:1809-1812.
43. Ganekal S, Sadhwani MH, Kagathur S. Effect of myopia and optic disc area on ganglion cell-inner plexiform layer and retinal nerve ber layer thickness. *Indian J Ophthalmol.* 2021;69:1820-4.
44. Rapuano CJ, Stout JT, McCannel CA. Optical Coherence Tomography for Glaucoma Diagnosis. *Glaucoma Basic and Clinical Science Course 2020-2021.* San Fransisco: American Academy of Ophthalmology. 2020; p.74-85.
45. Gupta C, et. al. A Clinical Study of Myopia for Evaluation of Retinal Nerve Fibre Layer Thickness Using Spectral Domain OCT. *IOSR Journal of Dental*

- and Medical Sciences (IOSR-JDMS), 20(05). 2021, pp. 27-32.
- 46. Rajeshwari A, Malathi VK. An observational study of the correlation between axial length and retinal nerve fibre layer thickness in myopic eyes in a tertiary care centre in South India. *TNOA J Ophthalmic Sci Res* 2022;60:235-9.
 - 47. Choi YJ, Jeoung JW, Park KH, et al. Glaucoma detection ability of ganglion cell-inner plexiform layer thickness by spectral-domain optical coherence tomography in high myopia. *Invest Ophthalmol Vis Sci* 2013;54(3):2296-304.
 - 48. Lopes FS, Igor M, Izabela A, et al. Structure Function Relationship in Glaucoma Using Enhanced Depth Imaging Optical Coherence Tomography-Derived Parameters: A Cross-Sectional Observational Study. *BMC Ophthalmology*. 2019;19(52):1-8.
 - 49. Xiao H, Xiao YV, Yi-MZ, et al. Age Related Changes of The Central Lamina Cribrosa Thickness, Depth and Prelaminar Tissue in Healthy Chinese Subjects. *Int J Ophthalmol*. 2018;11(11):1842-47.
 - 50. Park HYL, So HJ, Chan KP, et al. Enhanced Depth Imaging Detects Lamina Cribrosa Thickness Differences in Normal Tension Glaucoma and Primary Open Angle Glaucoma. *American Academy of Ophthalmology*. 2012;119(2):10-20.
 - 51. Lee EJ, Kim TW, Weinreb RN, et al. Visualization of the Lamina Cribrosa Using Enhanced Depth Imaging Spectral-Domain Optical Coherence Tomography. *AJOPHT*. 2011;152(1):87-95.
 - 52. Seo JH, Tae WK, Robert NW. Lamina Cribrosa Depth in Healthy Eyes. *Investig Ophthalmol Vis Sci*. 2014;55(3):1241-50.
 - 53. Kwun Y, Gyule H, Yoon JC, et al. Optic Disc Characteristics and Visual Field Progression in Normal Tension Glaucoma Patients with Tilted Optic Discs. *J Glaucoma*. 2016;25(11):901-7.
 - 54. Chang R, Kuldev S. Detecting and Treating Glaucoma in a Myopic Patient Without High IOP. *Glaucoma Today*. 2016;5(1):12-14.
 - 55. Anwar S. Sintesis, Fungsi dan Interpretasi Pemeriksaan Hormon Reproduksi. Bandung : Bagian Obstetri dan Ginekologi Fakultas Kedokteran Universitas Padjajaran. 2005. p.6-7.
 - 56. Schulster M, Bernie A M, Ramasamy R. The role of estradiol in male reproductive function. *Asian Journal of Andrology* 18(3):p 435-440, May-Jun 2016. DOI: 10.4103/1008-682X.173932
 - 57. Chaidid S, Barber JR, Rohrmann S, et al. Age-Specific Serum Total and Free Estradiol Concentrations in Healthy Men in US Nationally Representative Samples. *Journal of the Endocrine Society*. 10 (3):p. 1825-1830, October 2019. 10.1210/js.2019-00178
 - 58. Greenspan FS, Strewler GD. Appendix. In Francis S.G and Gordon J. S (eds), *Basic and Clinical Endocrinology*. 8th ed. London: Prentice-Hall International Inc. 2017.
 - 59. Qiu Y, Yu J, Tang L, et al. Association Between Sex Hormones and Visual Field Progression in Women with Primary Open Angle Glaucoma: A Cross-Sectional and Prospective Cohort Study. *Front. Aging Neurosci.*, 24 December

2021. Sec. Neuroinflammation and Neuropathy Volume 13 – 2021. Available from: <https://doi.org/10.3389/fnagi.2021.756186>
- 60. Gospé SM, Bhatti MT, El-Dairi MA. Optical Coherence Tomography in Pediatric Optic Neuropathies. *AAO Journal*. 2017. Available from: Optical Coherence Tomography in Pediatric Optic Neuropathies - American Academy of Ophthalmology (aao.org)
 - 61. Sari HV, Ilahi F, Susanti R. Profil Pasien Glaukoma Juvenil di Poliklinik Mata RS Dr. M. Djamil Padang Tahun 2017-2020. *Jurnal Ilmu Kesehatan Indonesia* 4(2):95-101, Jun 2023. DOI:10.25077/jikesi.v4i2.606
 - 62. Rapuano CJ, Stout JT, McCannel CA. Medical Management of Glaucoma and Ocular Hypertension. In: *Glaucoma. Basic and Clinical Science Course 2022-2023*. San Fransisco: American Academy of Ophthalmology. 2022. p.219-221.
 - 63. Kwun Y, Lee EJ, Han JC, et al. Clinical Characteristics of Juvenile-onset Open Angle Glaucoma. *Korean J Ophthalmol*. 2016 Apr;30(2):127-33. doi: 10.3341/kjo.2016.30.2.127. Epub 2016 Mar 25. PMID: 27051261; PMCID: PMC4820523.
 - 64. Ha A, Kim CY, Shim SR, Chang IB, et al. Degree of Myopia and Glaucoma Risk: A Dose-Response Meta-analysis. *Am J Ophthalmol*. 2022 Apr;236:107-119. doi: 10.1016/j.ajo.2021.10.007. Epub 2021 Oct 11. PMID: 34648776.
 - 65. Sun MT, Tran M, Singh K, et al. Glaucoma and Myopia: Diagnostic Challenges. *Biomolecules*. 2023 Mar 20;13(3):562. doi: 10.3390/biom13030562. PMID: 36979497; PMCID: PMC10046607.
 - 66. Seo et al. Ganglion Cell-Inner Plexiform Layer And Retinal Nerve Fiber Layer Thickness According To Myopia and Optic Disc Area: A Quantitative and Three-Dimensional Analysis. *BMC Ophthalmology*. 2017; 17(22):1-8.
 - 67. Ganekal S, Sadhwini MH, Kagathur S. Effect of Myopia and Optic Disc Area on Ganglion Cell-Inner Plexiform Layer and Retinal Nerve Fiber Layer Thickness. *Indian J Ophthalmol*. 2021;69:1820-4.
 - 68. Pasquale LR, Loomis SJ, Weinreb RN, et al. Estrogen pathway polymorphisms in relation to primary open angle glaucoma: an analysis accounting for gender from the United States. *Mol Vis*. 2013; 19:1471–1481. [PubMed: 23869166]
 - 69. Pasquale LR, Dewundara W, Wiggs J, et al. Is Estrogen a Therapeutic Target for Glaucoma? *Semin Ophthalmol*. 2016; 31(1-2): 140–146. doi: 10.3109/08820538.2015.1114845
 - 70. Mabuchi F, Sakurada Y, Kashiwagi K, et al. (2010). Estrogen Receptor Beta Gene Polymorphism and Intraocular Pressure Elevation in Female Patients With Primary Open-Angle Glaucoma. *American Journal of Ophthalmology*, 149(5), 826–830.e2. doi:10.1016/j.ajo.2009.12.030
 - 71. Berliani H, Desmawati, Utama BI. Peran Kadar Hormon Estrogen pada Perempuan Obesitas Sebagai Faktor Terganggunya Siklus Menstruasi. *Majalah Kedokteran Andalas*. Vol 46. No.2. April 2023. p.466-473.

72. Chen T, Wu F, Wang X, et al. Different levels of estradiol are correlated with sexual dysfunction in adult men. *Sci Rep.* 2020 Jul 29;10(1):12660. doi: 10.1038/s41598-020-69712-6. PMID: 32728148; PMCID: PMC7391660.
73. Wu J, Du Y, Li J, et al. The influence of different intraocular pressure on lamina cribrosa parameters in glaucoma and the relation clinical implication. *Sci Rep.* 2021 May 7;11(1):9755. doi: 10.1038/s41598-021-87844-1. PMID: 33963202; PMCID: PMC8105377.
74. Shin HJ, Park HL, Ryu HK, et al. Clinical Characteristics and Associated Factors to the Development of Glaucoma in Eyes With Myopic Optic Neuropathy, *American Journal of Ophthalmology*, Volume 260, 2024,p. 160-
171. Available from: <https://doi.org/10.1016/j.ajo.2024.01.001>.
75. Zivkovic M, Dayanir V, Zlatanovic M. Ganglion Cell-Inner Plexiform Layer Thickness in Different Glaucoma Stages Measured by Optical Coherence Tomography. *Ophthalmic Res* (2018) 59 (3): 148–154. DOI:10.1159/000478052
76. Li L, Bian A, Cheng G, et al. Posterior displacement of the lamina cribrosa in normal-tension and high-tension glaucoma. *Acta Ophthalmol.* 2016. doi: 10.1111/aos.13012
77. Chen X, Liu Y, Zhang Y. et al. Impact of aromatase absence on murine intraocular pressure and retinal ganglion cells. *Sci Rep* 8, 3280 (2018). <https://doi.org/10.1038/s41598-018-21475-x>

