

References

- 1) Edmund C. Assessment of an elastic model in the pathogenesis of Keratoconus. *Acta Ophthalmol* 65:545–50. 1987
- 2) Orssengo GJ and Pye DC. Determination of the true intraocular pressure and modulus of elasticity of the human cornea in vivo. *Bull Mathematical Biol* 61:551–72. 1999
- 3) Tripathi RC and Tripathi BJ. Anatomy of the human eye and adnexa. In: Dawson H, editor. *The eye. vegetative physiology and biochemistry*. Florida, USA: Academic Press 4:97–102. 1984
- 4) Muller LJ, Pels E and Vrensen GFJM. The specific architecture of the anterior stroma accounts for the maintenance of corneal curvature. *Br J Ophthalmol* 85:437–43. 2001
- 5) Luce DA. Determining in-vivo biomechanical properties of the cornea with an ocular response analyser. *J Refract Cataract Surg* 31:156–62. 2005
- 6) Liu J and Roberts CJ. Influence of corneal biomechanical properties on intraocular pressure measurement: quantitative analysis. *J Cataract Refract Surg* 31:146–55. 2005

- 7) Brubaker RF. Tonometry and corneal thickness. Arch Ophthalmol 117:104–105. 1999
- 8) Brandt JD, Beiser JA, Kass MA and Gordon MO. Central corneal thickness in the ocular hypertension treatment study (OHTS). Ophthalmology 108:1779–1788. 2001
- 9) Shimmyo M, Ross AJ, Moy A and Mostafavi R. Intraocular pressure, Goldmann applanation tension, corneal thickness, and corneal curvature in Caucasians, Asians, Hispanics, and African Americans. Am Ophthalmol 136:603–613. 2003
- 10) Shah S. Accurate intraocular pressure measurement-the myth of modern ophthalmology, Ophthalmology 107:1805–1807. 2000
- 11) Anthory J, Reash C, Tripathi and Brendo J.: Cornea and sclera. Wolff's anatomy of the eye and the orbit 7: 233-271. 2003
- 12) Snell RS and Lemb MA.: Cornea, Clinical anatomy of the eye, Blackwell science 5; 143-148. 2003
- 13) Gipson I., Smolin G., Thoft R. and Little Brown: Anatomy of the conjunctiva, cornea, scientific foundations and clinical practice 3: 1-24. 1994
- 14) Kenyon KR. : The synthesis of basement membrane by the corneal epithelium in bullous keratopathy. Invest Ophthalmol 1: 146-54. 1988

- 15) Smolek M., Tasman W., Jaeger E., Lippincott Co. and Klyce S.: Cornea, duane's foundations of clinical ophthalmology. 1: 1-20. 1993
- 16) Yamada R.: Quantitative analysis on the ultrastructure of human fetal cornea, Jpn. J. ophthalmol. Toyko 8:49-62. 1976
- 17) Tripathi RC, Butterworth, London and Washington.: Ultra structure of the normal cornea, in corneal grafting 2: 38-40. 1998
- 18) Rozsa AJ and Beuerman RW.: Density and organization of free nerve endings in the corneal epithelium of the rabbit 2:105-120. 1982
- 19) Klyce SD, Beuerman RW., kaufman HE, Barton BA, McDonald MB and Waltman SR: Structure and function of the cornea. Churchill Livingstone. New York 3:54-58. 1988
- 20) Klyce SD, Jenison GL, Crosson CE and Beuerman RW.: Distribution of sympathetic nerve in the rabbit cornea. ARVO abstract. Invest Ophthalmol Vis Sci 27 : 354. 1986.
- 21) Zigman S, Datiles M and Torczynski E.: Sunlight and human cataracts. Invest ophthalmol Vis Sci. 5: 462-467. 1979
- 22) Flower RW, Mcleod DS and Pitts SM.: Reflection of light by small areas of the ocular fundus. Invest Ophthalmol Vis Sci. 10: 981-5. 1977

- 23) McLaughlin BJ, Caldwell RB, Sasaki Y and Wood TO.: Freeze-fracture quantitative comparison of rabbit corneal epithelial and endothelial membranes. *Curr Eye Res.* 9: 951-61. 1985
- 24) Buck RC.: Measurement of centripetal migration of normal corneal epithelial cells in the mouse. *Invest Ophthalmol Vis Sci.* 9:296-299. 1985
- 25) Thoft RA and Friend J.: The X,Y,Z hypothesis of corneal epithelial maintenance. *Invest Ophthalmol. Vis. Sci.* 10:1442-1443. 1983
- 26) Cogan DG.: Applied anatomy and physiology of the cornea. *Trans Am Acad. Ophthalmol. Otolaryngol.* 55:329-359. 1991
- 27) Maurice DM.: The structure and transparency of the cornea. *J physiol.* 2:263-286. 1987
- 28) Mishima S, Gasset A, Klyce Sd and Baum JL.: Determination of tear volume and tear flow. *Invest Ophthalmol.* 3:264-276. 1966
- 29) Jaycock PD, Lobo L, Ibrahim J, Tyer J and Marshall J.: Interferometric technique to measure biomechanical changes in the cornea induced by refractive surgery *J Cataract Refract Surg.* 1:175-184. 2005
- 30) Birk DE, Fitch JM, Babiarz JP and Linsenmayer TF.: Collagen type I and type V are present in the same fibril in the avian corneal stroma. *J Cell Biol.* 63:999-1000. 1988

- 31) Meek KM and Fullwood NJ.: Corneal and scleral collagens-a microscopic's perspective. *Micron*. 3:261-272. 2001
- 32) Whitacre MM, Stein RA and Hassanein K. The effect of corneal thickness on applanation tonometry. *Am J Ophthalmol*. 115:590-596. 1993
- 33) Jester JV, Budge A, Fisher S and Huang J.: Corneal keratocytes phenotypic and species differences in abundant protein expression and in vitro light-scattering. *Invest Ophthalmol Vis. Sci*. 7: 2369-2378. 2005
- 34) Friedenwald JS. Contribution to the theory and practice of tonometry. *Am J Ophthalmol* 20: 985–1024. 1997
- 35) Manchester PT. Hydration of the cornea. *Trans Am Ophthal Soc* 68:425–461. 1971
- 36) du Toit R, Vega JA, Fonn D and Simpson T. Diurnal variation of corneal sensitivity and thickness 22:205–209. 2003
- 37) Whitacre MM and Stein R. Sources of error with use of Goldmann-type tonometers. *Surv ophthalmol*. 38:1-30. 1993
- 38) Liu J and Roberts CJ. Influence of corneal biomechanical properties on intraocular pressure measurement: quantitative analysis. *J Cataract Refract Surg*. 31:146-155. 2005

- 39) Damji KF and Munger R. Influence of central corneal thickness on applanation intraocular pressure. *J Glaucoma*. 9:205-207. 2000
- 40) Broman AT, Congdon NG and Bandeen-Roche K. Influence of corneal structure, corneal responsiveness, and other ocular parameters on tonometric measurement of intraocular pressure. *J Glaucoma* 16: 581-588. 2007
- 41) Luce D and Taylor D. Reichert Ocular Response Analyzer measures corneal biomechanical properties and IOP. 11: 634-647. 2006.
- 42) McBrien, N. A. and Gentle A. Role of the sclera in the development and pathological complications of myopia. *Progress in Retinal and Eye Research* 22:307–338. 2003
- 43) Gentle, A., Liu, Y., Martin, J. E., Conti, G. L., and McBrien, N. Collagen gene expression and the altered accumulation of scleral collagen during the development of high myopia. *The Journal of Biological Chemistry* 278:16587–16594. 2003
- 44) Shah S, Laiquzzaman M, and Cunliffe I. The use of the Reichert ocular response analyser to establish the relationship between ocular hysteresis, corneal resistance factor and central corneal thickness in normal eyes. *Cont Lens Anterior Eye* 29:257-262. 2006
- 45) Gunvant P, O’Leary DJ and Baskaran M. Evaluation of tonometric correction factors. *J Glaucoma* 14:337–343. 2005

- 46) Martinez-de-la-Casa JM, Garcia-Feijoo J and Fernandez-Vidal A. Ocular response analyzer versus Goldmann applanation tonometry for intraocular pressure measurements. *Invest Ophthalmol Vis Sci* 47:4410-4414. 2006
- 47) Doughty MJ and Zaman ML. Human corneal thickness and its impact on intraocular pressure measures: a review and meta-analysis approach. *Surv Ophthalmol* 44:367-408. 2000
- 48) Ehlers N, Bramsen T and Sperling S. Applanation tonometry and central corneal thickness. *Acta Ophthalmol* 53:34-43. 1985
- 49) Congdon NG, Broman MA and Bandeen-Roche K. Central thickness and hysteresis associated with glaucoma damage. *Am J Ophthalmol* 141:868-875. 2006
- 50) Drance SM. Diurnal variation of intra-ocular pressure in treated glaucoma. Significance in patients with chronic simple glaucoma. *Arch Ophthalmol* 70:302-311. 1983
- 51) Medeiros FA and Weinreb RN. Evaluation of the influence of corneal biomechanical properties on intraocular pressure measurements using the ocular response analyzer. *J Glaucoma* 15:364-370. 2006
- 52) Kotecha A, Elsheikh A and Roberts CR. Corneal thickness and age-related biomechanical properties of the cornea measured with the ocular response analyzer. *Invest Ophthalmol Vis Sci* 47:5337-5347. 2006

- 53) Sullivan-Mee M, Billingsley SC and Patel AD. Ocular Response Analyzer in subjects with and without glaucoma. *Optometry and Vision Science* 6:463-470. 2008
- 54) Chihara E. Assessment of true intraocular pressure: the gap between theory and practical data. *Surv Ophthalmol* 3:203-218. 2008
- 55) Hager A, Schroeder B and Sadeghi M. The influence of corneal hysteresis and corneal resistance factor on the measurement of intraocular pressure. *Ophthalmologe* 104:484-489. 2007
- 56) Kynigopoulos M, Schlote T and Kotecha A. Repeatability of intraocular pressure and corneal biomechanical properties measurements by the ocular response analyzer. *Klin Monatsbl Augenheilkd* 225:357-360. 2008
- 57) Luce, D. Methodology for corneal compensated IOP and corneal resistance factor for an ocular response analyzer. *Investigative Ophthalmology & Visual Science, E-Abstract* ,2266. 2006
- 58) Birk DE, Fitch JM, Babiarz JP and Linsenmayer TF.: Collagen type I and type V are present in the same fibril in the avian corneal stroma. *J Cell Biol.* 3: 999-1000. 1988
- 59) Herndon LW, Choudhri SA and Cox T. Central corneal thickness in normal, glaucomatous, and ocular hypertensive eyes. *Arch Ophthalmol* 115: 1137-1141. 1997

- 60) Argus WA. Ocular hypertension and central corneal thickness. *Ophthalmology* 102: 1810-1812. 1995
- 61) Mark HH. Corneal curvature in applanation tonometry. *Am J Ophthalmol* 76: 223-234. 1983
- 62) Paranhos A, Paranhos FR and Prata JA. Influence of keratometric readings on comparative intraocular pressure measurements with Goldmann, Tono-Pen, and non-contact tonometers. *J Glaucoma* 9: 317-321. 2000
- 63) Holladay JT, Allison ME and Prager TC. Goldmann applanation tonometry in patients with regular corneal astigmatism. *Am J Ophthalmol* 96: 90-93. 1983
- 64) Moses RA. The Goldmann applanation tonometer. *Am J Ophthalmol* 46: 865-869. 1985
- 65) Schmidt T. The use of the Goldmann applanation tonometer. *Trans Ophthalmol Soc UK* 79: 637-650. 1995
- 66) Kaufman HE, Wind CA and Waltman SR. Validity of MacKay-Marg electronic applanation tonometer in patients with scarred irregular corneas. *Am J Ophthalmol* 69: 1003-1007. 1990
- 67) Bohm A, Kohlhaas M and Lerche RC. Measuring intraocular pressure in keratoconus: Effect of the changed biomechanics. *Ophthalmologie* 94: 771-774. 1997
- 68) Wright MM and Grajewski AL. Measurement of intraocular pressure with a flat anterior chamber. *Ophthalmology* 98: 1854-1857. 1999

- 69) Emara B, Probst LE and Tingey DP. Correlation of intraocular pressure and central corneal thickness in normal myopic eyes and after laser in situ keratomileusis. *J Cataract Refract Surg* 24: 1320-1325. 1998
- 70) Schipper I, Senn P and Thomann U. Intraocular pressure after excimer laser photorefractive keratectomy for myopia. *J Refract Corneal Surg* 11: 366-370. 1995
- 71) Rootman DS, Insler MS and Thompson HW. Accuracy and precision of the Tono-Pen in measuring intraocular pressure after keratoplasty and epikeratophakia and in scarred corneas. *Arch Ophthalmol* 106: 1697. 1988
- 72) Eisenberg DL, Sherman BG and Mckeown CA. Tonometry in adults and children, *Ophthalmol* 105: 1173-1181. 1998
- 73) Karim F, Damji and Rajeev HM. Therapeutics and Techniques Influence of Corneal Variables on Accuracy of Intraocular Pressure Measurement. *J Glaucoma* 12: 69-80. 2003
- 74) Bochmann F, Ang GS and Azuara-Blanco A. Lower corneal hysteresis in glaucoma patients with acquired pit of the optic nerve. *Graef's Arch Clin Exp Ophthalmol* 246: 735-738. 2008
- 75) Gloster J and Perkins ES. The validity of the Imbert-fick law as applied to applanation tonometry. *Exp Eye Res* 2: 274-283. 1963
- 76) Pache M, Wilmsmeyer S and Lautebach S. Dynamic contour tonometry versus Goldmann applanation tonometry: A comparative study. *Graef's Arch Clin Exp Ophthalmol* 8: 763-767. 2005

- 77) Kanski JJ. Glaucoma, Clinical ophthalmology, 5th ed. Edinburg : Butterworth and Heinemann, pp 193. 2003
- 78) Schmidt T. The clinical application of the Goldmann applanation tonometer. Am J Ophthalmol 49: 967-978. 1980
- 79) Draeger J and Jessen K. Tonometry and tonography. Glaucoma: Contemporary International Concepts, 3rd ed. New York: Masson Publishing USA. pp 82. 1997
- 80) Phelps CD and Phelps GK. Measurement of intraocular pressure: A study of its reproducibility. Graefes Arch Clin Exp Ophthalmol 198: 39. 1976
- 81) Moses RA. Fluorescein in Applanation tonometry. Am J Ophthalmol 49: 1149. 1990
- 82) Purslow PP and Karwatowski WS. Ocular elasticity. Is engineering stiffness a more useful characterization parameter than ocular rigidity, Ophthalmology 103:1686-1692. 1996
- 83) Green K. Techniques of intraocular pressure determination. Lens Eye Toxic Res 3-4: 485-489. 1990
- 84) Hjortdal JO. Regional elastic performance of the human cornea. J Biomech 29:931-942. 1996

- 85) Quigley HA, Dorman-Pease ME and Brown AE. Quantitative study of collagen and elastin of the optic nerve head and sclera in human and experimental monkey glaucoma. *Curr Eye Res* 10: 877-888. 1991
- 86) Shah S, Chatterjee A and Mathai M. Relationship between corneal thickness and measured intraocular pressure in a general ophthalmology clinic. *Ophthalmology* 106: 2154-2160. 1999
- 87) Kohlhaas M, Boehm AG and Spoerl E. Effect of central corneal thickness, corneal curvature, and axial length on Applanation Tonometry. *Arch Ophthalmol* 124: 471-476. 2006
- 88) Gordon MO, Beiser JA and Brandt JD. The ocular hypertension treatment study: Base line factors that predict the onset of primary open-angle glaucoma. *Arch Ophthalmol* 120: 714-720. 2002
- 89) Carlos GV, Moraes D and Tiago S. Modalities of Tonometry and their Accuracy with Respect to Corneal Thickness and Irregularities. *J Optom* 1: 43-49. 2008
- 90) Ambrosio R. Advances in anterior segment imaging and glaucoma. *Highlights of Ophthalmology* 35: 115-121. 2007
- 91) Agudelo LM, Molina CA and Alvarez DL. Changes in intraocular pressure after LASIK for myopia, hyperopia, and astigmatism. *J Refract Surg* 4: 472-474. 2002

- 92) Kohlhaas M, Lerche RC and Draeger J. Influence of corneal thickness and corneal curvature on tonometry reading after corneal refractive surgery. *Eur J Implant Refract Surg* 7:84-88. 1995
- 93) Kaufmann C, Bachmann LM and Thiel MA. Intraocular pressure measurements using dynamic contour tonometry after laser in situ keratomileusis. *Invest Ophthalmol Vis Sci*. 9:3790-3794. 2003
- 94) Gartry DS, Kerr MG and Marshall J. Photorefractive laser keratectomy:18 month follow up.*Ophthalmology* 99:1209-1219. 1992
- 95) El Mallah MK and Asrani SG. New ways to measure intraocular pressure. *current opinion in ophthalmol* 19: 122-126. 2008
- 96) Ceruti P, Morbio R and Marraffa M. Comparison of Goldmann applanation tonometry and dynamic contour tonometry in healthy and glaucomatous eyes. 25: 162-168. 2008
- 97) Papastergiou GI, Kozobolis V and Siganos DS. Assessment of the Pascal dynamic contour tonometer in measuring intraocular pressure in keratoconic eyes. *J Glaucoma* 17:484-488. 2008
- 98) Ceruti P, Morbio R and Marraffa M. Comparison of dynamic contour tonometry and goldmann applanation tonometry in deep lamellar and penetrating keratoplasties. *Am J Ophthalmol* 145:215-221. 2008

- 99) Pepose JS, Feigenbaum SK and Qazi MA. Changes in corneal biomechanics and intraocular pressure following LASIK using static, dynamic, and noncontact tonometry. *Am J Ophthalmol* 143: 39-47. 2007
- 100) Schneider E, Krieglstein GK and Weinerb RN: Dynamic contour tonometry. 8:247-256. 2006
- 101) Kanngiesser HM and Kniestedt C. Dynamic contour tonometry: Presentation of a New Tonometer. *J Glaucoma* 14: 344-350. 2005
- 102) Schmidt KG, Von Rückmann A and Mittag TW. Ocular pulse amplitude in ocular hypertension and open-angle glaucoma. *Ophthalmologica* 212:5-10. 1998
- 103) Punjabi OS, Kniestedt C and Stamper RL. Dynamic contour tonometry: principle and use. *Clinical and Experimental Ophthalmology* 34:837-840. 2006
- 104) Francis BA, Hsieh A and Lai M-Y. Effect of corneal thickness, corneal curvature, and intraocular pressure level on Goldmann applanation tonometry and Dynamic Contour Tonometry. *Ophthalmology* 114: 20-26. 2007
- 105) Agudelo LM, Molina CA and Alvarez DL. Changes in intraocular pressure after LASIK for myopia,hyperopia, and astigmatism. *J Refract Surg* 4:472-474. 2002

- 106) Kotecha A, White ET and Shewry JM. The relative effects of corneal thickness and age on Goldmann applanation tonometry and dynamic contour tonometry. *Br J Ophthalmol* 89: 1572-1575. 2005
- 107) Duba I and Wirthlin AC. Dynamic contour tonometry for post-LASIK intraocular pressure measurements. *Klin Monatsbl Augenheilkd* 221: 347-350. 2004
- 108) Kniestedt C, Nee M and Stamper RL. Accuracy of dynamic contour tonometry compared with applanation tonometry in human cadaver eyes of different hydration states. *Graefes Arch Clin Exp Ophthalmol* 243:359-366. 2005
- 109) Kniestedt C, Lin S and Choe J. Clinical comparison of contour and applanation tonometry and their relationship to pachymetry. *Arch Ophthalmol* 123: 1532-1537. 2005
- 110) Kampeter BA and Jonas JB. Dynamic contour tonometry for intraocular pressure measurement. *Am J Ophthalmol* 140: 318-320. 2005
- 111) Feltgen N, Leifert D and Funk J. Correlation between central corneal thickness, applanation tonometry and direct intracameral IOP readings. *Br J Ophthalmol* 85: 85-87. 2001
- 112) Kaufmann C, Bachmann LM and Thiel MA. Comparison of dynamic contour tonometry with Goldmann applanation tonometry. *Invest Ophthalmol Vis Sci* 45: 3118-3121. 2004