

## [IV]

研究成果の刊行物・別刷

- 1) Hatou S, Yamada M, Akune Y, Mochizuki H, Shiraishi A, Joko T, Nishida T, Tsubota K. Role of insulin in regulation of Na<sup>+</sup>/K<sup>+</sup>-dependent ATPase activity and pump function in corneal endothelial cells. *Investigative ophthalmology & visual science* 2010;51(8):3935–3942.
- 2) Yamaguchi T, Negishi K, Yamaguchi K, Dogru M, Uchino Y, Shimmura S, Tsubota K. Comparison of anterior and posterior corneal surface irregularity in Descemet stripping automated endothelial keratoplasty and penetrating keratoplasty. *Cornea* 2010;29(10):1086–1090.
- 3) Tsubota K. Anti-aging in ophthalmology. *Ophthalmic research* 2010;44(3):145.
- 4) Hatou S, Shimmura S, Shimazaki J, Usui T, Amano S, Yokogawa H, Kobayashi A, Zheng X, Shiraishi A, Ohashi Y, Inatomi T, Tsubota K. Mathematical projection model of visual loss due to fuchs corneal dystrophy. *Investigative ophthalmology & visual science* 2011;52(11):7888–7893.
- 5) Hatou S. Hormonal regulation of Na<sup>+</sup>/K<sup>+</sup>-dependent ATPase activity and pump function in corneal endothelial cells. *Cornea* 2011;30 Suppl 1:S60–66.
- 6) Yokoi T, Seko Y, Yokoi T, Makino H, Hatou S, Yamada M, Kiyono T, Umezawa A, Nishina H, Azuma N. Establishment of functioning human corneal endothelial cell line with high growth potential. *PLoS one* 2012;7(1):e29677
- 7) Asada Y, Ebihara N, Funaki T, Yokoi N, Murakami A, Matsuda A. Vernal keratoconjunctivitis with giant papillae on the inferior tarsal conjunctiva. *Cornea* 2014;33(1):32–34.
- 8) Nakatani S, Murakami A. Three-year outcome of Descemet stripping automated endothelial keratoplasty for bullous keratopathy after argon laser iridotomy. *Cornea* 2014;33(8):780–784
- 9) Fuchihata M, Maeda N, Toda R, Koh S, Fujikado T, Nishida K. Characteristics of corneal topographic and pachymetric patterns in patients with pellucid marginal corneal degeneration. *Japanese journal of ophthalmology* 2014;58(2):131–138.
- 10) Maeda N, Nakagawa T, Higashihara R, Fuchihata M, Koh S, Nishida K. Evaluation of corneal epithelial and stromal thickness in keratoconus using spectral-domain optical coherence tomography. *Japanese journal of ophthalmology* 2014;58(5):389–395.
- 11) Maeda N, Nakagawa T, Kosaki R, Koh S, Saika M, Fujikado T, Nishida K. Higher-order aberrations of anterior and posterior corneal surfaces in patients with keratectasia after LASIK. *Investigative ophthalmology & visual science* 2014;55(6):3905–3911.
- 12) Oie Y, Kamei M, Matsumura N, Fujimoto H, Soma T, Koh S, Tsujikawa M, Maeda N, Nishida K. Rigid gas-permeable contact lens-assisted cataract surgery in patients with severe keratoconus. *Journal of cataract and refractive surgery* 2014;40(3):345–348.
- 13) Hiratsuka Y, Yamada M, Akune Y, Murakami A, Okada AA, Yamashita H, Ohashi Y,

- Yamagishi N, Tamura H, Fukuhara S, Takura T. Assessment of vision-related quality of life among patients with cataracts and the outcomes of cataract surgery using a newly developed visual function questionnaire: the VFQ-J11. *Japanese journal of ophthalmology* 2014;58(5):415–422.
- 14) Shigeyasu C, Hirano S, Akune Y, Yamada M. Diquafosol Tetrasodium Increases the Concentration of Mucin-like Substances in Tears of Healthy Human Subjects. *Current eye research* 2014;1-6.
- 15) Fukui M, Yamada M, Akune Y, Shigeyasu C, Tsubota K. Fluorophotometric Analysis of the Ocular Surface Glycocalyx in Soft Contact Lens Wearers. *Current eye research* 2015;1-6.
- 16) Kawasaki R, Akune Y, Hiratsuka Y, Fukuhara S, Yamada M. Cost-utility analysis of screening for diabetic retinopathy in Japan: a probabilistic Markov modeling study. *Ophthalmic epidemiology* 2015;22(1):4-12.
- 17) Koh S, Ikeda C, Fujimoto H, Oie Y, Soma T, Maeda N, Nishida K. Regional Differences in Tear Film Stability and Meibomian Glands in Patients With Aqueous-Deficient Dry Eye. *Eye Contact Lens*. 2015. [Epub ahead of print]
- 18) Watanabe S, Oie Y, Fujimoto H, Soma T, Koh S, Tsujikawa M, Maeda N, Nishida K. Relationship between Corneal Guttae and Quality of Vision in Patients with Mild Fuchs' Endothelial Corneal Dystrophy. *Ophthalmology* 2015;122(10):2103-2109.
- 19) Nagahara Y, Koh S, Maeda N, Nishida K, Watanabe H. Prominent Decrease of Tear Meniscus Height With Contact Lens Wear and Efficacy of Eye Drop Instillation. *Eye & contact lens* 2015;41(5):318-322.
- 20) Yoshihara M, Ohmiya H, Hara S, Kawasaki S, consortium F, Hayashizaki Y, Itoh M, Kawaji H, Tsujikawa M, Nishida K. Correction: discovery of molecular markers to discriminate corneal endothelial cells in the human body. *PloS one* 2015;10(5):e0129412.
- 21) Koizumi N, Inatomi T, Suzuki T, Shiraishi A, Ohashi Y, Kandori M, Miyazaki D, Inoue Y, Soma T, Nishida K, Takase H, Sugita S, Mochizuki M, Kinoshita S, Japan Corneal Endotheliitis Study G. Clinical features and management of cytomegalovirus corneal endotheliitis: analysis of 106 cases from the Japan corneal endotheliitis study. *The British journal of ophthalmology* 2015;99(1):54-58.
- 22) Akiyama R, Usui T, Yamagami S. Diagnosis of Dry Eye by Tear Meniscus Measurements Using Anterior Segment Swept Source Optical Coherence Tomography. *Cornea* 2015;34 Suppl 11:S115-120.
- 23) Haruki T, Miyazaki D, Inata K, Sasaki S, Yamamoto Y, Kandori M, Yakura K, Noguchi Y, Touge C, Ishikura R, Touge H, Yamagami S, Inoue Y. Indoleamine 2,3-dioxygenase 1 in corneal endothelial cells limits herpes simplex virus type 1-induced acquired immune response. *The British journal of ophthalmology* 2015;99(10):1435-1442.

- 24) Toyono T, Usui T, Yokoo S, Taketani Y, Nakagawa S, Kuroda M, Yamagami S, Amano S. Angiopoietin-like 7 is an anti-angiogenic protein required to prevent vascularization of the cornea. *PloS one* 2015;10(1):e0116838.
- 25) Yamaguchi M, Shima N, Kimoto M, Ebihara N, Murakami A, Yamagami S. Markers for distinguishing cultured human corneal endothelial cells from corneal stromal myofibroblasts. *Current eye research* 2015;40(12):1211–1217.
- 26) Mimura T, Yamagami S, Noma H, Kamei Y, Goto M, Kondo A, Matsubara M. Specific IgE for wheat in tear fluid of patients with allergic conjunctivitis. *Cutaneous and ocular toxicology* 2015;34(1):25–34.
- 27) Nakamura T, Inatomi T, Sotozono C, Koizumi N, Kinoshita S. Ocular surface reconstruction using stem cell and tissue engineering. *Progress in retinal and eye research* 2016;51:187–207.
- 28) Oka N, Suzuki T, Ishikawa E, Yamaguchi S, Hayashi N, Gotoh N, Ohashi Y. Relationship of Virulence Factors and Clinical Features in Keratitis Caused by *Pseudomonas aeruginosa*. *Investigative ophthalmology & visual science* 2015;56(11):6892–6898.
- 29) Yamamoto Y, Yokoi N, Ogata M, Shiraishi A, Yamaguchi M, Uno T, Inagaki K, Hayashi K, Kinoshita S, Ohashi Y. Correlation Between Recurrent Subconjunctival Hemorrhages and Conjunctivochalasis by Clinical Profile and Successful Surgical Outcome. *Eye & contact lens* 2015;41(6):367–372.
- 30) Yoshioka E, Yamaguchi M, Shiraishi A, Kono T, Ohta K, Ohashi Y. Influence of Eyelid Pressure on Fluorescein Staining of Ocular Surface in Dry Eyes. *American journal of ophthalmology* 2015;160(4):685–692 e681.
- 31) Kobayashi T, Shiraishi A, Hara Y, Kadota Y, Yang L, Inoue T, Shirakata Y, Ohashi Y. Stromal–epithelial interaction study: The effect of corneal epithelial cells on growth factor expression in stromal cells using organotypic culture model. *Experimental eye research* 2015;135:109–117.
- 32) Inoue T, Maeda N, Zheng X, Suzuki T, Mitsuyama D, Okamoto N, Miura T, Mano T, Ohashi Y. Landolt ring-shaped epithelial keratopathy: a novel clinical entity of the cornea. *JAMA ophthalmology* 2015;133(1):89–92.
- 33) 羽藤晋. Fuchs 角膜内皮変性症. *眼科グラフィック* 2015 年 4 卷 4 号 : 400–402
- 34) Asada Y, Nakae S, Ishida W, Hori K, Sugita J, Sudo K, Fukuda K, Fukushima A, Suto H, Murakami A, Saito H, Ebihara N, Matsuda A. Roles of Epithelial Cell-Derived Type 2-Initiating Cytokines in Experimental Allergic Conjunctivitis. *Investigative ophthalmology & visual science* 2015;56(9):5194–5202.
- 35) Yamaguchi M, Shima N, Kimoto M, Ebihara N, Murakami A, Yamagami S. Optimization of Cultured Human Corneal Endothelial Cell Sheet Transplantation and Post-Operative Sheet Evaluation in a Rabbit Model. *Current eye research* 2016;1–7.
- 36) Tomida D, Yamaguchi T, Ogawa A, Hirayama Y, Shimazaki-Den S, Satake Y, Shimazaki J. Effects of corneal irregular astigmatism on visual acuity after

conventional and femtosecond laser-assisted Descemet's stripping automated endothelial keratoplasty. *Japanese journal of ophthalmology* 2015;59(4):216-222.

- 37) Shimizu T, Yamaguchi T, Satake Y, Shimazaki J. Topographic hot spot before descemet stripping automated endothelial keratoplasty is associated with postoperative hyperopic shift. *Cornea* 2015;34(3):257-263.
- 38) Matsumoto Y, Dogru M, Shimazaki J, Tsubota K. Novel corneal piggyback technique for consecutive intraocular lens implantation and penetrating keratoplasty surgery. *Cornea* 2015;34(6):713-716.
- 39) Gomes JA, Tan D, Rapuano CJ, Belin MW, Ambrosio R, Jr., Guell JL, Malecaze F, Nishida K, Sangwan VS, Group of Panelists for the Global Delphi Panel of K, Ectatic D. Global consensus on keratoconus and ectatic diseases. *Cornea* 2015;34(4):359-369.
- 40) Shigeyasu C, Yamada M, Akune Y, Tsubota K. Diquafosol sodium ophthalmic solution for the treatment of dry eye: clinical evaluation and biochemical analysis of tear composition. *Japanese journal of ophthalmology* 2015;59(6):415-420.
- 41) Fukui M, Yamada M, Akune Y, Shigeyasu C, Tsubota K. Fluorophotometric Analysis of the Ocular Surface Glycocalyx in Soft Contact Lens Wearers. *Current eye research* 2016;41(1):9-14.
- 42) Tamura H, Goto R, Akune Y, Hiratsuka Y, Hiragi S, Yamada M. The Clinical Effectiveness and Cost-Effectiveness of Screening for Age-Related Macular Degeneration in Japan: A Markov Modeling Study. *PloS one* 2015;10(7):e0133628.
- 43) Passara Jongkha-jornpong, Kaevalin Lekhanont, Mayumi Ueta, Koji Kitazawa, Satoshi Kawasaki, Shigeru Kinoshita. Novel TACSTD2 mutation in gelatinous drop-like corneal dystrophy. *Human Genome Variation* (2015) 2, 15047; doi:10.1038/hgv.2015.47
- 44) Oie Y, Nishida K. Triple procedure: cataract extraction, intraocular lens implantation, and corneal graft. *Curr Opin Ophthalmol.* 2017; 28: 63-66.
- 45) Oie Y, Watanabe S, Nishida K. Evaluation of visual quality in patients with Fuchs endothelial corneal dystrophy. *Cornea* 2016; 35: S55-58.
- 46) Koh S, Ikeda C, Fujimoto H, Oie Y, Soma T, Maeda N, Nishida K. Regional differences in tear film stability and meibomian gland in patients with aqueous-deficient dry eye. *Eye Contact Lens.* 2016; 42: 250-5.
- 47) Fujimoto H, Maeda N, Shintani A, Nakagawa T, Fuchihata M, Higashiura R, Nishida K. Quantitative Evaluation of the Natural Progression of Keratoconus Using Three-Dimensional Optical Coherence Tomography. *Investigative ophthalmology & visual science* 2016;57(9):OCT169-175.
- 48) Hayashi R, Ishikawa Y, Sasamoto Y, Katori R, Nomura N, Ichikawa T, Araki S, Soma T, Kawasaki S, Sekiguchi K, Quantock AJ, Tsujikawa M, Nishida K. Co-

- ordinated ocular development from human iPS cells and recovery of corneal function. *Nature* 2016;531(7594):376–380.
- 49) Oie Y, Watanabe S, Nishida K. Evaluation of Visual Quality in Patients With Fuchs Endothelial Corneal Dystrophy. *Cornea* 2016;35 Suppl 1:S55–S58.
  - 50) Oshika T, Nishida K, Sotozono C, Saika S, Fukushima A, Hori Y. "Toward a Bright Future for Corneal Research and Practice in Japan and Abroad," 21st Annual Meeting of the Kyoto Cornea Club, November 27 and 28, 2015. *Cornea* 2016;35 Suppl 1:S1–S2.
  - 51) Oya F, Soma T, Oie Y, Nakao T, Koh S, Tsujikawa M, Maeda N, Nishida K. Outcomes of photorefractive keratectomy instead of phototherapeutic keratectomy for patients with granular corneal dystrophy type 2. *Graefe's archive for clinical and experimental ophthalmology = Albrecht von Graefes Archiv fur klinische und experimentelle Ophthalmologie* 2016;254(10):1999–2004.
  - 52) Sasamoto Y, Hayashi R, Park SJ, Saito-Adachi M, Suzuki Y, Kawasaki S, Quantock AJ, Nakai K, Tsujikawa M, Nishida K. PAX6 Isoforms, along with Reprogramming Factors, Differentially Regulate the Induction of Cornea-specific Genes. *Scientific reports* 2016;6:20807.
  - 53) Shimazaki J, Maeda N, Hieda O, Ohashi Y, Murakami A, Nishida K, Tsubota K, Japan Pellucid Marginal Corneal Degeneration Study G. National survey of pellucid marginal corneal degeneration in Japan. *Japanese journal of ophthalmology* 2016;60(5):341–348.
  - 54) Nakamura T, Inatomi T, Sotozono C, Koizumi N, Kinoshita S. Ocular surface reconstruction using stem cell and tissue engineering. *Progress in retinal and eye research* 2016;51:187–207.
  - 55) Li X, Qian H, Sogame R, Hirako Y, Tsuruta D, Ishii N, Koga H, Tsuchisaka A, Jin Z, Tsubota K, Fukumoto A, Sotozono C, Kinoshita S, Hashimoto T. Integrin beta4 is a major target antigen in pure ocular mucous membrane pemphigoid. *European journal of dermatology : EJD* 2016;26(3):247–253.
  - 56) Kitazawa K, Hikichi T, Nakamura T, Sotozono C, Kinoshita S, Masui S. PAX6 regulates human corneal epithelium cell identity. *Experimental eye research* 2016;154:30–38.
  - 57) Inoue T, Hara Y, Kobayashi T, Zheng X, Suzuki T, Shiraishi A, Ohashi Y. Corona sign: manifestation of peripheral corneal epithelial edema as a possible marker of the progression of corneal endothelial dysfunction. *Japanese journal of ophthalmology* 2016;60(5):349–356.
  - 58) himazaki J, Maeda N, Hieda O, Ohashi Y, Murakami A, Nishida K, Tsubota K, Japan Pellucid Marginal Corneal Degeneration Study G. National survey of pellucid marginal corneal degeneration in Japan. *Japanese journal of ophthalmology* 2016;60(5):341–348.
  - 59) Shimazaki J, Maeda N, Hieda O, Ohashi Y, Murakami A, Nishida K, Tsubota K, Japan Pellucid Marginal Corneal Degeneration Study G. National survey of

pellucid marginal corneal degeneration in Japan. Japanese journal of ophthalmology 2016;60(5):341–348.

- 60) Kawashima M, Hiratsuka Y, Nakano T, Tamura H, Ono K, Murakami A, Inoue S, Tsubota K, Yamada M. The association between legal Japanese visual impairment grades and vision-related quality of life. Japanese journal of ophthalmology 2016;60(3):219–225.
- 61) Yamaguchi T, Higa K, Suzuki T, Nakayama N, Yagi-Yaguchi Y, Dogru M, Satake Y, Shimazaki J. Elevated Cytokine Levels in the Aqueous Humor of Eyes With Bullous Keratopathy and Low Endothelial Cell Density. Investigative ophthalmology & visual science 2016;57(14):5954–5962.
- 62) Shimazaki J, Maeda N, Hieda O, Ohashi Y, Murakami A, Nishida K, Tsubota K, Japan Pellucid Marginal Corneal Degeneration Study G. National survey of pellucid marginal corneal degeneration in Japan. Japanese journal of ophthalmology 2016;60(5):341–348.
- 63) Ishii N, Yamaguchi T, Yazu H, Satake Y, Yoshida A, Shimazaki J. Factors associated with graft survival and endothelial cell density after Descemet's stripping automated endothelial keratoplasty. Scientific reports 2016;6:25276.
- 64) Suzuki T, Morishige N, Arita R, Koh S, Sakimoto T, Shirakawa R, Miyata K, Ohashi Y. Morphological changes in the meibomian glands of patients with phlyctenular keratitis: a multicenter cross-sectional study. BMC ophthalmology 2016;16(1):178.
- 65) Ono T, Mori Y, Nejima R, Tokunaga T, Miyata K, Amano S. Long-term follow-up of transplantation of preserved limbal allograft and amniotic membrane for recurrent pterygium. Graefe's archive for clinical and experimental ophthalmology = Albrecht von Graefes Archiv fur klinische und experimentelle Ophthalmologie 2016;254(12):2425–2430.
- 66) Hasegawa Y, Nejima R, Mori Y, Sakisaka T, Minami K, Miyata K, Oshika T. Risk factors for corneal endothelial cell loss by cataract surgery in eyes with pseudoexfoliation syndrome. Clinical ophthalmology 2016;10(1685–1689).
- 67) Nakano T, Kawashima M, Hiratsuka Y, Tamura H, Ono K, Murakami A, Tsubota K, Yamada M. Assessment of quality of life in patients with visual impairments using a new visual function questionnaire: the VFQ-J11. Clinical ophthalmology 2016;10:1939–1944.
- 68) Kawashima M, Hiratsuka Y, Nakano T, Tamura H, Ono K, Murakami A, Inoue S, Tsubota K, Yamada M. The association between legal Japanese visual impairment grades and vision-related quality of life. Japanese journal of ophthalmology 2016;60(3):219–225.
- 69) Tano T, Ono K, Hiratsuka Y, Otani K, Sekiguchi M, Konno S, Kikuchi S, Onishi Y, Takegami M, Yamada M, Fukuwara S, Murakami A. Retinal vessel diameters in a Japanese population: the Locomotive Syndrome and Health Outcome in Aizu Cohort Study. Acta Ophthalmol. 2016;94:e432–41.

- 70) Shigeyasu C, Yamada M, Akune Y, Fukui M. Diquafosol for Contact Lens Dryness: Clinical Evaluation and Tear Analysis. *Optom Vis Sci.* 2016;93:973–8.
- 71) Tsuda M, Takano Y, Shigeyasu C, Imoto S, Yamada M. Abnormal Corneal Lesions Induced by Trastuzumab Emtansine: An Antibody–Drug Conjugate for Breast Cancer. *Cornea.* 2016;35:1378–80.
- 72) Shigeyasu C, Yamada M, Akune Y. Influence of Ophthalmic Solutions on Tear Components. *Cornea.* 2016;35 Suppl: S71 –S77.
- 73) Tsubota K, Yokoi N, Shimazaki J, Watanabe H, Dogru M, Yamada M, Kinoshita S, Kim HM, Tchah HW, Hyon JY, Yoon KC, Seo KY, Sun X, Chen W, Liang L, Mingwu L, Liu Z. New Perspectives on Dry Eye Definition and Diagnosis: A Consensus Report by the Asia Dry Eye Society. *Ocul Surf.* 2017;15:65–76.
- 74) Kawashima M, Yamada M, Suwaki K, Shigeyasu C, Uchino M, Hiratsuka Y, Yokoi N, Tsubota K, the DECS-J Study Group. A clinic-based survey of clinical characteristics and practice pattern of dry eye in Japan. *Adv Ther.* 2017;34:732–743.
- 75) Yamaguchi M, Shima N, Kimoto M, Ebihara N, Murakami A, Yamagami S. Optimization of Cultured Human Corneal Endothelial Cell Sheet Transplantation and Post-Operative Sheet Evaluation in a Rabbit Model. *Curr Eye Res.* 2016 Feb 1:1–7.
- 76) Nakamura T, Yokoo S, Bentley AJ, Nagata M, Fullwood NJ, Inatomi T, Sotozono C, Yamagami S, Kinoshita S. Development of functional human oral mucosal epithelial stem/progenitor cell sheets using a feeder-free and serum-free culture system for ocular surface reconstruction. *Scientific reports* 2016;6:37173.
- 77) Toyono T, Usui T, Villarreal G, Jr., Kallay L, Matthaei M, Vianna LM, Zhu AY, Kuroda M, Amano S, Jun AS. MicroRNA-29b Overexpression Decreases Extracellular Matrix mRNA and Protein Production in Human Corneal Endothelial Cells. *Cornea* 2016;35(11):1466–1470.
- 78) Taketani Y, Usui T, Toyono T, Shima N, Yokoo S, Kimakura M, Yamagami S, Ohno S, Onodera R, Tahara K, Takeuchi H, Kuroda M. Topical Use of Angiopoietin-like Protein 2 RNAi-loaded Lipid Nanoparticles Suppresses Corneal Neovascularization. *Molecular therapy Nucleic acids* 2016;5:e292.
- 79) Hayashi T, Usui T, Yamagami S. Suppression of Allograft Rejection with Soluble VEGF Receptor 2 Chimeric Protein in a Mouse Model of Corneal Transplantation. *The Tohoku journal of experimental medicine* 2016;239(1):81–88.
- 80) Akiyama-Fukuda R, Usui T, Yoshida T, Yamagami S. Evaluation of Tear Meniscus Dynamics Using Anterior Segment Swept-Source Optical Coherence Tomography After Topical Solution Instillation for Dry Eye. *Cornea* 2016;35(5):654–658.
- 81) Sasamoto Y, Hayashi R, Park SJ, Saito-Adachi M, Suzuki Y, Kawasaki S, Quantock AJ, Nakai K, Tsujikawa M, Nishida K. PAX6 Isoforms, along with Reprogramming Factors, Differentially Regulate the Induction of Cornea-specific Genes. *Scientific reports* 2016;6(20807).

- 82) Kitazawa K, Hikichi T, Nakamura T, Mitsunaga K, Tanaka A, Nakamura M, Yamakawa T, Furukawa S, Takasaka M, Goshima N, Watanabe A, Okita K, Kawasaki S, Ueno M, Kinoshita S, Masui S. OVOL2 Maintains the Transcriptional Program of Human Corneal Epithelium by Suppressing Epithelial-to-Mesenchymal Transition. *Cell reports* 2016;15(6):1359–1368.
- 83) Hayashi R, Ishikawa Y, Sasamoto Y, Katori R, Nomura N, Ichikawa T, Araki S, Soma T, Kawasaki S, Sekiguchi K, Quantock AJ, Tsujikawa M, Nishida K. Coordinated ocular development from human iPS cells and recovery of corneal function. *Nature* 2016;531(7594):376–380.
- 84) Fukuoka H, Kawasaki S, Yokoi N, Yamasaki K, Kinoshita S. Cytopathological Features of a Severe Type of Corneal Intraepithelial Neoplasia. *Case reports in ophthalmology* 2016;7(1):253–261.