

## 文 献

- 1) アレルギー性結膜疾患診療ガイドライン編集委員会：アレルギー性結膜疾患診療ガイドライン(第2版). 日眼会誌 114 : 829-870, 2010.
- 2) **Committee SiTT** : STREPTOMYCIN treatment of pulmonary tuberculosis. *Br Med J* 2 : 769-782, 1948.
- 3) **Begg C, Cho M, Eastwood S, Horton R, Moher D, Olkin I, et al** : Improving the quality of reporting of randomized controlled trials. The CONSORT statement. *JAMA* 276 : 637-639, 1996.
- 4) 日本眼科医会アレルギー眼疾患調査研究：アレルギー性結膜疾患の診断と治療のガイドライン. 大野重昭(編). 日本眼科医会アレルギー眼疾患調査研究班業績集. 日本眼科医会, 東京, 9-11, 1995.
- 5) 日本眼科医会アレルギー眼疾患調査研究班：アレルギー性結膜疾患の疫学. 大野重昭(編). 日本眼科医会アレルギー眼疾患調査研究班業績集. 日本眼科医会, 東京, 12-20, 1995.
- 6) **Miyazaki D, Fukagawa K, Fukushima A, Fujishima H, Uchio E, Ebihara N, et al** : Air pollution significantly associated with severe ocular allergic inflammatory diseases. *Sci Rep* 9 : 18205, 2019.
- 7) **Singh K, Axelrod S, Bielory L** : The epidemiology of ocular and nasal allergy in the United States, 1988-1994. *J Allergy Clin Immunol* 126 : 778-783 e6, 2010.
- 8) **Ait-Khaled N, Pearce N, Anderson HR, Ellwood P, Montefort S, Shah J, et al** : ISAAC Phase Three Study Group : Global map of the prevalence of symptoms of rhinoconjunctivitis in children : The International Study of Asthma and Allergies in Childhood (ISAAC) Phase Three. *Allergy* 64 : 123-148, 2009.
- 9) **Kusunoki T, Morimoto T, Nishikomori R, Yasumi T, Heike T, Fujii T, et al** : Changing prevalence and severity of childhood allergic diseases in Kyoto, Japan, from 1996 to 2006. *Allergol Int* 58 : 543-548, 2009.
- 10) 西間三馨, 小田嶋 博, 太田國隆, 岡 尚記, 岡崎 薫, 金谷正明, 他 : 西日本小学児童におけるアレルギー疾患有病率調査—1992, 2002, 2012年の比較—. *日小児アレルギー会誌* 27 : 149-169, 2013.
- 11) **Miyazaki D, Fukagawa K, Okamoto S, Fukushima A, Uchio E, Ebihara N, et al** : Epidemiological aspects of allergic conjunctivitis. *Allergol Int* : 487-495, 2020.
- 12) 中川やよい, 石崎道治, 岡本茂樹, 濱野 孝, 東田みち代, 福本敏子, 他 : アレルギー性結膜疾患に対する涙液中総IgEのイムノクロマトグラフィ測定法の臨床的検討. *臨眼* 60 : 951-954, 2006.
- 13) 内尾英一 : 眼脂. *臨眼* 53 : 64-66, 1999.
- 14) 大野重昭, 内尾英一, 石崎道治, 高村悦子, 海老原伸行, 庄司 純, 他 : アレルギー性結膜疾患の新しい臨床評価基準と重症度分類. *医薬ジャーナル* 37 : 1341-1349, 2001.
- 15) 庄司 純, 内尾英一, 海老原伸行, 大橋裕一, 大野重昭, 岡本茂樹, 他 : アレルギー性結膜疾患診断における自覚症状, 他覚所見および涙液総IgE検査キットの有用性の検討. *日眼会誌* 116 : 485-493, 2012.
- 16) 中川やよい : アレルギー性結膜疾患における結膜分泌物中好酸球の陽性率. *アレルギーの臨* 16 : 968-971, 1996.
- 17) 中川やよい : アレルギー性結膜炎. *あたらしい眼科* 10 : 1805-1812, 1993.
- 18) **Scalinci SZ, Trovato Battagliola E** : Conjunctivitis can be the only presenting sign and symptom of COVID-19. *IDCases* 20 : e00774, 2020.
- 19) **Hui KPY, Cheung MC, Perera RAPM, Ng KC, Bui CHT, Ho JCW, et al** : Tropism, replication competence, and innate immune responses of the coronavirus SARS-CoV-2 in human respiratory tract and conjunctiva : an analysis in *ex-vivo* and *in-vitro* cultures. *Lancet Respir Med* 8 : 687-695, 2020.
- 20) 久松健一 : 抗原回避・除去の実際. 今野昭義(編) : アレルギー性鼻炎. 最新医学(別冊), 146-153, 2003.
- 21) 後藤 穣, 大久保公裕 : スギ花粉症症例における花粉防御具の効果の客観的評価. *アレルギー科* 15 : 120-123, 2003.
- 22) 深川和己 : スギ花粉アレルギー性結膜炎に対するセルフケアと初期療法. *日本の眼科* 88 : 291-295, 2017.
- 23) 高村悦子, 高野博子, 篠崎和美, 吉野圭子 : ドライアイに対する防腐剤無添加人工涙液の有用性. *日コレ誌* 35 : 312-316, 1993.
- 24) **Fujishima H, Ohashi Y, Takamura E** : Efficacy of epinastine hydrochloride ophthalmic solution in allergic conjunctivitis by conjunctival cedar pollen allergen challenge. *Ann Allergy Asthma Immunol* 113 : 476-481, 2014.
- 25) **Akhavan A, Karimi-Sari H, Khosravi MH, Arefzadeh E, Yavarahmadi M** : Comparing the effects of ketotifen fumarate eye drops and ketotifen oral pills on symptom severity and quality of life in patients with allergic rhinitis : a double-blind randomized clinical trial. *Int Forum Allergy Rhinol* 5 : 386-391, 2015.
- 26) 大路正人, 桑山泰明, 木下裕光, 松尾くる美, 下村嘉一, 木下 茂, 他 : 小児におけるステロイドレスポンスの頻度. *臨眼* 45 : 749-752, 1992.
- 27) **Armaly MF** : Statistical attributes of the steroid hypertensive response in the clinically normal eye. I. The demonstration of three levels of response. *Invest Ophthalmol* 4 : 187-197, 1965.
- 28) **Yazu H, Dogru M, Matsumoto Y, Fujishima H** : Efficacy and safety of an eye wash solution in allergic conjunctivitis after conjunctival allergen challenge. *Ann Allergy Asthma Immunol* 117 : 565-566, 2016.
- 29) **Bertelmann E, Pleyer U** : Immunomodulatory

- therapy in ophthalmology- is there a place for topical application? *Ophthalmologica* 218 : 359-367, 2004.
- 30) **Cetinkaya A, Akova YA, Dursun D, Pelit A** : Topical cyclosporine in the management of shield ulcers. *Cornea* 23 : 194-200, 2004.
  - 31) **Pucci N, Novembre E, Lombardi E, Massai C, Bernardini R, Caputo R, et al** : Long eyelashes in a case series of 93 children with vernal keratoconjunctivitis. *Pediatrics* 115 : e86-e91, 2005.
  - 32) **Strong B, Farley W, Stern ME, Pflugfelder SC** : Topical cyclosporine inhibits conjunctival epithelial apoptosis in experimental murine keratoconjunctivitis sicca. *Cornea* 24 : 80-85, 2005.
  - 33) 海老原伸行 : 免疫抑制点眼薬によって変わる春季カタルの治療. *日本の眼科* 80 : 1155-1159, 2009.
  - 34) **Ebihara N, Ohashi Y, Fujishima H, Fukushima A, Nakagawa Y, Namba K, et al** : Blood level of tacrolimus in patients with severe allergic conjunctivitis treated by 0.1% tacrolimus ophthalmic suspension. *Allergol Int* 61 : 275-282, 2012.
  - 35) **Fukushima A, Ohashi Y, Ebihara N, Uchio E, Okamoto S, Kumagai N, et al** : Therapeutic effects of 0.1% tacrolimus eye drops for refractory allergic ocular diseases with proliferative lesion or corneal involvement. *Br J Ophthalmol* 98 : 1023-1027, 2014.
  - 36) **Miyazaki D, Fukushima A, Ohashi Y, Ebihara N, Uchio E, Okamoto S, et al** : Steroid-sparing effect of 0.1% tacrolimus eye drop for treatment of shield ulcer and corneal epitheliopathy in refractory allergic ocular diseases. *Ophthalmology* 124 : 287-294, 2017.
  - 37) **Shoji J, Ohashi Y, Fukushima A, Miyazaki D, Uchio E, Takamura E, et al** : Topical tacrolimus for chronic allergic conjunctival disease with and without atopic dermatitis. *Curr Eye Res* 44 : 796-805, 2019.
  - 38) 海老原伸行 : 結膜炎小児アレルギー性結膜疾患の対処法. 佐藤美保(編) : 眼科インストラクションコース 12 小児の眼疾患診療まるごとマスター. メジカルビュー社, 東京, 38-43, 2007.
  - 39) **Fujishima H, Fukagawa K, Takano Y, Tanaka M, Okamoto S, Miyazaki D, et al** : Comparison of efficacy of bromfenac sodium 0.1% ophthalmic solution and fluorometholone 0.02% ophthalmic suspension for the treatment of allergic conjunctivitis. *J Ocul Pharmacol Ther* 25 : 265-270, 2009.
  - 40) **Swamy BN, Chilov M, McClellan K, Petsoglou C** : Topical non-steroidal anti-inflammatory drugs in allergic conjunctivitis : meta-analysis of randomized trial data. *Ophthalmic Epidemiol* 14 : 311-319, 2007.
  - 41) **Juniper EF, Guyatt GH, Ferrie PJ, King DR** : Sodium cromoglycate eye drops : regular versus "as needed" use in the treatment of seasonal allergic conjunctivitis. *J Allergy Clin Immunol* 94 : 36-43, 1994.
  - 42) 海老原伸行 : 季節性アレルギー性結膜炎におけるイブジラスト点眼予防投与の効果. *あたらしい眼科* 20 : 259-262, 2003.
  - 43) **Fukuda K, Ebihara N, Kishimoto T, Fukushima A** : Amelioration of conjunctival giant papillae by dupilumab in patients with atopic keratoconjunctivitis. *J Allergy Clin Immunol Pract* 8 : 1152-1155, 2020.
  - 44) **Gkalpakiotis S, Arenberger P, Skalicka P, Arenbergerova M** : Dupilumab therapy in a patient with atopic dermatitis and severe atopic keratoconjunctivitis. *J Eur Acad Dermatol Venereol* 34 : e281-e283, 2020.
  - 45) **Ou Z, Chen C, Chen A, Yang Y, Zhou W** : Adverse events of dupilumab in adults with moderate-to-severe atopic dermatitis : a meta-analysis. *Int Immunopharmacol* 54 : 303-310, 2018.
  - 46) **Kim TW, Mun JH, Jwa SW, Song M, Kim HS, Ko HC, et al** : Proactive treatment of adult facial seborrhoeic dermatitis with 0.1% tacrolimus ointment : randomized, double-blind, vehicle-controlled, multi-centre trial. *Acta Derm Venereol* 93 : 557-561, 2013.
  - 47) **Wollenberg A, Barbarot S, Bieber T, Christen-Zaech S, Deleuran M, Fink-Wagner A, et al ; European Dermatology Forum (EDF), the European Academy of Dermatology and Venereology (EADV), the European Academy of Allergy and Clinical Immunology (EAACI), the European Task Force on Atopic Dermatitis (ETFAD), European Federation of Allergy and Airways Diseases Patients' Associations (EFA), the European Society for Dermatology and Psychiatry (ESDaP), the European Society of Pediatric Dermatology (ESPD), Global Allergy and Asthma European Network (GA2LEN), the European Union of Medical Specialists (UEMS)** : Consensus-based European guidelines for treatment of atopic eczema (atopic dermatitis) in adults and children : part I. *J Eur Acad Dermatol Venereol* 32 : 657-682, 2018.
  - 48) **Sastre J, Baldrich ES, Armario Hita JC, Herráez L, Jáuregui I, Martín-Santiago A, et al** : Consensus on the Clinical Approach to Moderate-to-Severe Atopic Dermatitis in Spain : A Delphi Survey. *Dermatol Res Pract* 2020 : 1524293, 2020.
  - 49) **Tuft SJ, Kemeny DM, Dart JK, Buckley RJ** : Clinical features of atopic keratoconjunctivitis. *Ophthalmology* 98 : 150-158, 1991.
  - 50) 海老原伸行 : アトピー性眼瞼炎. 大野重昭, 他(編). *NEW MOOK 眼科 6 アレルギー性眼疾患*. 金原出版, 東京, 109-115, 2003.
  - 51) 竹内 勉, 大野重昭, 長田廉平, 松田英彦 : 円錐角膜におけるアトピー性素因の検索. *日眼会誌* 84 : 152-155, 1986.

- 52) 森本厚子, 金井 淳, 中島 章: 円錐角膜とアトピー性疾患及び血中IgEに関する検索. 眼紀 37: 469-472, 1986.
- 53) **Shajari M, Eberhardt E, Müller M, Al Khateeb G, Friderich S, Remy M**, et al: Effects of atopic syndrome on keratoconus. *Cornea* 35: 1416-1420, 2016.
- 54) **Barsam A, Brennan N, Petrushkin H, Xing W, Quartilho A, Bunce C**, et al: Case-control study of risk factors for acute corneal hydrops in keratoconus. *Br J Ophthalmol* 101: 499-502, 2017.
- 55) **Nagaki Y, Hayasaka S, Kadoi C**: Cataract progression in patients with atopic dermatitis. *J Cataract Refract Surg* 25: 96-99, 1999.
- 56) **Gnana Jothi V, McGimpsey S, Sharkey JA, Chan WC**: Retinal detachment repair and cataract surgery in patients with atopic dermatitis. *Eye (Lond)* 31: 1296-1301, 2017.
- 57) **Hida T, Tano Y, Okinami S, Ogino N, Inoue M**: Multicenter retrospective study of retinal detachment associated with atopic dermatitis. *Jpn J Ophthalmol* 44: 407-418, 2000.
- 58) 東 範行: アトピー性皮膚炎の眼合併症. 日小皮会誌 19: 103-107, 2000.
- 59) **Hayakawa K, Hirahara K, Fukuda T, Okazaki M, Shiohara T**: Risk factors for severe impetiginized atopic dermatitis in Japan and assessment of its microbiological features. *Clin Exp Dermatol* 34: e63-e65, 2009.
- 60) 佐藤敦子, 岩崎 隆, 庄司 純, 澤 充, 野口義久: 伝染性膿痂疹に合併した角膜膿瘍の1例. 日眼会誌 102: 395-398, 1998.
- 61) 稲田紀子, 庄司 純, 齋藤圭子, 澤 充: アトピー素因を有する患者に合併した角膜感染症の4症例. 眼科 43: 1111-1115, 2001.
- 62) 高村悦子, 高野博子, 根来和美, 檜垣祐子: アトピー性皮膚炎に伴う疱疹性湿疹発症時の角膜ヘルペス. 眼臨 86: 1010-1013, 1992.
- 63) 庄司 純, 稲田紀子, 齋藤圭子, 澤 充: カポジ水痘様発疹症における前眼部病変の検討. 眼科 41: 291-296, 1999.
- 64) **Higaki S, Inoue Y, Yoshida A, Maeda N, Watanabe H, Shimomura Y**: Case of bilateral multiple herpetic epithelial keratitis manifested as dendriform epithelial edema during primary Kaposi's varicelliform eruption. *Jpn J Ophthalmol* 52: 127-129, 2008.
- 65) 亀山和子, 吉川啓司, 林 皓三郎: 濾胞性結膜炎を伴った眼部伝染性軟属腫. 眼科 20: 141-144, 1978.
- 66) **van der Wouden JC, van der Sande R, Kruithof EJ, Sollie A, van Suijlekom-Smit LW, Koning S**: Interventions for cutaneous molluscum contagiosum. *Cochrane Database Syst Rev* 5: CD004767, 2017.
- 67) **Pulendran B, Artis D**: New paradigms in type 2 immunity. *Science* 337: 431-435, 2012.
- 68) **Sugita J, Asada Y, Ishida W, Iwamoto S, Sudo K, Suto H**, et al: Contributions of Interleukin-33 and TSLP in a papain-soaked contact lens-induced mouse conjunctival inflammation model. *Immun Inflamm Dis* 5: 515-525, 2017.
- 69) **Imai Y, Hosotani Y, Ishikawa H, Yasuda K, Nagai M, Jitsukawa O**, et al: Expression of IL-33 in ocular surface epithelium induces atopic keratoconjunctivitis with activation of group 2 innate lymphoid cells in mice. *Sci Rep* 7: 10053, 2017.
- 70) **Fujishima H, Okada N, Matsumoto K, Fukagawa K, Igarashi A, Matsuda A**, et al: The usefulness of measuring tear periostin for the diagnosis and management of ocular allergic diseases. *J Allergy Clin Immunol* 138: 459-467, 2016.
- 71) **Wakamatsu TH, Satake Y, Igarashi A, Dogru M, Ibrahim OM, Okada N**, et al: IgE and eosinophil cationic protein (ECP) as markers of severity in the diagnosis of atopic keratoconjunctivitis. *Br J Ophthalmol* 96: 581-586, 2012.
- 72) 稲田紀子: アレルギー性結膜炎. 眼科 44: 77-83, 2002.
- 73) 佐橋紀男: 2004年のスギ花粉前線. 日花粉会誌 50: 39-47, 2004.
- 74) **Sakaguchi M, Inouye S, Tanai M, Ando S, Usui M, Matuhasi T**: Identification of the second major allergen of Japanese cedar pollen. *Allergy* 45: 309-312, 1990.
- 75) 熊谷直樹: アレルギー性結膜疾患の季節変動. 臨眼 55: 1513-1518, 2001.
- 76) 山本哲夫, 久々湊 靖, 縫 郁美, 高田竜多, 平尾元康, 上村正見, 他: シラカバ花粉の感作と果物に対する口腔咽頭の過敏症. 日耳鼻会報 98: 1086-1091, 1995.
- 77) 宇佐神 篤, 拓殖明宏, 岩崎幸司: 職業性アレルギー. 耳鼻・頭頸外科 73: 122-128, 2001.
- 78) 雑賀寿和: コンタクトレンズとアレルギー性結膜炎. あたらしい眼科 9: 1845-1851, 1992.
- 79) **Hernández J, Negro JM, Pascual A, Sola J, Miralles JC, Mora A**, et al: [Comparative study between 10 and 20 mg of cetirizine in the symptomatic treatment of seasonal allergic rhinoconjunctivitis] (Article in Spanish). *Allergol Immunopathol (Madr)* 21: 179-184, 1993.
- 80) **Ciprandi G, Buscaglia S, Iudice A, Pesce GP, Bagnasco M, Canonica GW**: Protective effects of deflazacort on allergen-specific conjunctival challenge. *Eur J Clin Pharmacol* 45 Suppl 1: S35-S41, 1993.
- 81) **Notivol R, Martínez M, Bergamini MV**: Treatment of chronic nonbacterial conjunctivitis with a cyclo-oxygenase inhibitor or a corticosteroid. *Pranoprofen Study Group. Am J Ophthalmol* 117: 651-656, 1994.
- 82) **Harper DG, Chen CE, Friedlaender MH**: Controlled comparison of two fluorometholone formulations in the antigen challenge model of allergic

- conjunctivitis. Loteprednol Allergic Conjunctivitis Study Group. *CLAO J* 21 : 256-260, 1995.
- 83) **Dell SJ, Shulman DG, Lowry GM, Howes J** : A controlled evaluation of the efficacy and safety of loteprednol etabonate in the prophylactic treatment of seasonal allergic conjunctivitis. *Am J Ophthalmol* 123 : 791-797, 1997.
  - 84) **Dell SJ, Lowry GM, Northcutt JA, Howes J, Novack GD, Hart K** : A randomized, double-masked, placebo-controlled parallel study of 0.2% loteprednol etabonate in patients with seasonal allergic conjunctivitis. *J Allergy Clin Immunol* 102 : 251-255, 1998.
  - 85) **Shulman DG, Lothringer LL, Rubin JM, Briggs RB, Howes J, Novack GD et al** : A randomized, double-masked, placebo-controlled parallel study of loteprednol etabonate 0.2% in patients with seasonal allergic conjunctivitis. None of the investigators had a proprietary interest in loteprednol etabonate. *Ophthalmology* 106 : 362-369, 1999.
  - 86) **Figus M, Fogagnolo P, Lazzeri S, Capizzi F, Romagnoli M, Canovetti A, et al** : Treatment of allergic conjunctivitis : results of a 1-month, single-masked randomized study. *Eur J Ophthalmol* 20 : 811-818, 2010.
  - 87) **Ohashi Y, Ebihara N, Fujishima H, Fukushima A, Kumagai N, Nakagawa Y, et al** : A randomized, placebo-controlled clinical trial of tacrolimus ophthalmic suspension 0.1% in severe allergic conjunctivitis. *J Ocul Pharmacol Ther* 26 : 165-174, 2010.
  - 88) **Gong L, Sun X, Qu J, Wang L, Zhang M, Zhang H, et al** : Loteprednol etabonate suspension 0.2% administered QID compared with olopatadine solution 0.1% administered BID in the treatment of seasonal allergic conjunctivitis : a multicenter, randomized, investigator-masked, parallel group study in Chinese patients. *Clin Ther* 34 : 1259-1272, 2012.
  - 89) **Dehar N, Gupta A, Singh G** : Comparative study of the ocular efficacy and safety of diclofenac sodium(0.1%)ophthalmic solution with that of ketorolac tromethamine(0.5%)ophthalmic solution in patients with acute seasonal allergic conjunctivitis. *Int J Appl Basic Med Res* 2 : 25-30, 2012.
  - 90) **Li Z, Mu G, Chen W, Gao L, Jhanji V, Wang L** : Comparative evaluation of topical pranoprofen and fluorometholone in cases with chronic allergic conjunctivitis. *Cornea* 32 : 579-582, 2013.
  - 91) **Celik T, Turkoglu EB** : Comparative evaluation of olopatadine 0.01% combined fluorometholone 0.1% treatment versus olopatadine 0.01% combined ketorolac 0.4% treatment in patients with acute seasonal allergic conjunctivitis. *Curr Eye Res* 39 : 42-46, 2014.
  - 92) **Ratner P, Van Bavel J, Mohar D, Jacobs RL, Hampel F, Howland W, et al** : Efficacy of daily intranasal fluticasone propionate on ocular symptoms associated with seasonal allergic rhinitis. *Ann Allergy Asthma Immunol* 114 : 141-147, 2015.
  - 93) **Wu LQ, Chen X, Lou H, Cheng JW, Wei RL** : Loteprednol etabonate in the treatment of allergic conjunctivitis : a meta-analysis. *Curr Med Res Opin* 31 : 1509-1518, 2015.
  - 94) **Liu RF, Wu XX, Wang X, Gao J, Zhou J, Zhao Q** : Efficacy of olopatadine hydrochloride 0.1%, emedastine difumarate 0.05%, and loteprednol etabonate 0.5% for Chinese children with seasonal allergic conjunctivitis : a randomized vehicle-controlled study. *Int Forum Allergy Rhinol* 7 : 393-398, 2017.
  - 95) **Miyazaki D, Shimizu D, Fukushima A, Ebihara N, Uchio E, Shoji J, et al** : Reduced steroid-induced intraocular pressure elevation in tacrolimus-treated refractory allergic ocular diseases. *Jpn J Ophthalmol* 64 : 568-576, 2020.
  - 96) **Holsclaw DS, Whitcher JP, Wong IG, Margolis TP** : Supratarsal injection of corticosteroid in the treatment of refractory vernal keratoconjunctivitis. *Am J Ophthalmol* 121 : 243-249, 1996.
  - 97) **Akman A, Irkeç M, Orhan M** : Effects of lodoxamide, disodium cromoglycate and fluorometholone on tear leukotriene levels in vernal keratoconjunctivitis. *Eye(Lond)* 12(Pt 2) : 291-295, 1998.
  - 98) **Tabbara KF, al-Kharashi SA** : Efficacy of nedocromil 2% versus fluorometholone 0.1% : a randomised, double masked trial comparing the effects on severe vernal keratoconjunctivitis. *Br J Ophthalmol* 83 : 180-184, 1999.
  - 99) **Saini JS, Gupta A, Pandey SK, Gupta V, Gupta P** : Efficacy of supratarsal dexamethasone versus triamcinolone injection in recalcitrant vernal keratoconjunctivitis. *Acta Ophthalmol Scand* 77 : 515-518, 1999.
  - 100) **Singh S, Pal V, Dhull CS** : Supratarsal injection of corticosteroids in the treatment of refractory vernal keratoconjunctivitis. *Indian J Ophthalmol* 49 : 241-245, 2001.
  - 101) **Daniell M, Constantinou M, Vu HT, Taylor HR** : Randomised controlled trial of topical ciclosporin A in steroid dependent allergic conjunctivitis. *Br J Ophthalmol* 90 : 461-464, 2006.
  - 102) **Mantelli F, Santos MS, Petitti T, Sgrulletta R, Cortes M, Lambiase A, et al** : Systematic review and meta-analysis of randomised clinical trials on topical treatments for vernal keratoconjunctivitis. *Br J Ophthalmol* 91 : 1656-1661, 2007.
  - 103) **Uchio E, Itoh Y, Kadonosono K** : Topical bromfenac sodium for long-term management of vernal keratoconjunctivitis. *Ophthalmologica* 221 : 153-158, 2007.
  - 104) **Mahdy RA, Nada WM, Shahien EA, Boghdadi GA, Marei AA** : Hyposensitization in the treat-



- ment of resistant cases of vernal keratoconjunctivitis. *Cutan Ocul Toxicol* 29 : 198-202, 2010.
- 105) **De Smedt S, Nkurikiye J, Fonteyne Y, Tuft S, De Bacquer D, Gilbert C**, et al : Topical ciclosporin in the treatment of vernal keratoconjunctivitis in Rwanda, Central Africa : a prospective, randomised, double-masked, controlled clinical trial. *Br J Ophthalmol* 96 : 323-328, 2012.
- 106) **Oner V, Türkcü FM, Taş M, Alakuş MF, Işcan Y** : Topical loteprednol etabonate 0.5% for treatment of vernal keratoconjunctivitis : efficacy and safety. *Jpn J Ophthalmol* 56 : 312-318, 2012.
- 107) **Wan XC, Dimov V** : Pharmacokinetic evaluation of topical calcineurin inhibitors for treatment of allergic conjunctivitis. *Expert Opin Drug Metab Toxicol* 10 : 543-549, 2014.
- 108) **Pucci N, Caputo R, di Grande L, de Libero C, Mori F, Barni S**, et al : Tacrolimus vs. cyclosporine eyedrops in severe cyclosporine-resistant vernal keratoconjunctivitis : A randomized, comparative, double-blind, crossover study. *Pediatr Allergy Immunol* 26 : 256-261, 2015.
- 109) **Müller EG, Santos MSD, Freitas D, Gomes JÁP, Belfort R Jr** : Tacrolimus eye drops as monotherapy for vernal keratoconjunctivitis : a randomized controlled trial. *Arq Bras Oftalmol* 80 : 154-158, 2017.
- 110) **Sud RN, Greval RS, Bajwa RS** : Topical flurbiprofen therapy in vernal keratoconjunctivitis. *Indian J Med Sci* 49 : 205-209, 1995.
- 111) **Dahan E, Appel R** : Vernal keratoconjunctivitis in the black child and its response to therapy. *Br J Ophthalmol* 67 : 688-692, 1983.
- 112) **Vajpayee RB, Gupta SK, Uppal RK** : Evaluation of sodium cromoglycate and medrysone in the management of atopic keratoconjunctivitis : a double masked clinical study. *Aust N Z J Ophthalmol* 14 : 251-253, 1986.
- 113) **González-López JJ, López-Alcalde J, Morcillo Laiz R, Fernández Buenaga R, Rebolledo Fernández G** : Topical cyclosporine for atopic keratoconjunctivitis. *Cochrane Database Syst Rev* : CD009078, 2012.
- 114) **Hingorani M, Moodaley L, Calder VL, Buckley RJ, Lightman S** : A randomized, placebo-controlled trial of topical cyclosporin A in steroid-dependent atopic keratoconjunctivitis. *Ophthalmology* 105 : 1715-1720, 1998.
- 115) **Ebihara N, Ohashi Y, Uchio E, Okamoto S, Kumagai N, Shoji J**, et al : A large prospective observational study of novel cyclosporine 0.1% aqueous ophthalmic solution in the treatment of severe allergic conjunctivitis. *J Ocul Pharmacol Ther* 25 : 365-372, 2009.
- 116) **BenEzra D, Pe'er J, Brodsky M, Cohen E** : Cyclosporine eyedrops for the treatment of severe vernal keratoconjunctivitis. *Am J Ophthalmol* 101 : 278-282, 1986.
- 117) **BenEzra D, Matamoros N, Cohen E** : Treatment of severe vernal keratoconjunctivitis with cyclosporine A eyedrops. *Transplant Proc* 20 : 644-649, 1988.
- 118) **Secchi AG, Tognon MS, Leonardi A** : Topical use of cyclosporine in the treatment of vernal keratoconjunctivitis. *Am J Ophthalmol* 110 : 641-645, 1990.
- 119) **Bleik JH, Tabbara KF** : Topical cyclosporine in vernal keratoconjunctivitis. *Ophthalmology* 98 : 1679-1684, 1991.
- 120) **Holland EJ, Olsen TW, Ketcham JM, Florine C, Krachmer JH, Purcell JJ**, et al : Topical cyclosporin A in the treatment of anterior segment inflammatory disease. *Cornea* 12 : 413-419, 1993.
- 121) **Kaan G, Ozden O** : Therapeutic use of topical cyclosporine. *Ann Ophthalmol* 25 : 182-186, 1993.
- 122) **Secchi A, Leonardi A, Abelson M** : The role of eosinophil cationic protein (ECP) and histamine in vernal keratoconjunctivitis. *Ocul Immunol Inflamm* 3 : 23-28, 1995.
- 123) **el-Asrar AMA, Tabbara KF, Geboes K, Missotten LUC, Desmet V** : An immunohistochemical study of topical cyclosporine in vernal keratoconjunctivitis. *Am J Ophthalmol* 121 : 156-161, 1996.
- 124) **Mendicute J, Aranzasti C, Eder F, Ostolaza JI, Salaberria M** : Topical cyclosporin A 2% in the treatment of vernal keratoconjunctivitis. *Eye (Lond)* 11 (Pt 1) : 75-78, 1997.
- 125) **Hingorani M, Calder VL, Buckley RJ, Lightman S** : The immunomodulatory effect of topical cyclosporin A in atopic keratoconjunctivitis. *Invest Ophthalmol Vis Sci* 40 : 392-399, 1999.
- 126) **Gupta V, Sahu PK** : Topical cyclosporin A in the management of vernal keratoconjunctivitis. *Eye (Lond)* 15 : 39-41, 2001.
- 127) **Pucci N, Novembre E, Cianferoni A, Lombardi E, Bernardini R, Caputo R**, et al : Efficacy and safety of cyclosporine eyedrops in vernal keratoconjunctivitis. *Ann Allergy Asthma Immunol* 89 : 298-303, 2002.
- 128) **Tomida I, Schlote T, Bräuning J, Heide PE, Zierhut M** : [Cyclosporin A 2% eyedrops in therapy of atopic and vernal keratoconjunctivitis] (Article in German). *Ophthalmologe* 99 : 761-767, 2002.
- 129) **Kosrirukvongs P, Luengchaichawange C** : Topical cyclosporine 0.5 per cent and preservative-free ketorolac tromethamine 0.5 per cent in vernal keratoconjunctivitis. *J Med Assoc Thai* 87 : 190-197, 2004.
- 130) **Spadavecchia L, Fanelli P, Tesse R, Brunetti L, Cardinale F, Bellizzi M**, et al : Efficacy of 1.25% and 1% topical cyclosporine in the treatment of severe vernal keratoconjunctivitis in childhood. *Pediatr Allergy Immunol* 17 : 527-532, 2006.

- 131) **Kiliç A, Gürler B** : Topical 2% cyclosporine A in preservative-free artificial tears for the treatment of vernal keratoconjunctivitis. *Can J Ophthalmol* 41 : 693-698, 2006.
- 132) **Anzaar F, Gallagher MJ, Bhat P, Arif M, Farooqui S, Foster CS** : Use of systemic T-lymphocyte signal transduction inhibitors in the treatment of atopic keratoconjunctivitis. *Cornea* 27 : 884-888, 2008.
- 133) **Keklikci U, Soker SI, Sakalar YB, Unlu K, Ozekinci S, Tunik S** : Efficacy of topical cyclosporin A 0.05% in conjunctival impression cytology specimens and clinical findings of severe vernal keratoconjunctivitis in children. *Jpn J Ophthalmol* 52 : 357-362, 2008.
- 134) **Pucci N, Caputo R, Mori F, De Libero C, Di Grande L, Massai C.** et al : Long-term safety and efficacy of topical cyclosporine in 156 children with vernal keratoconjunctivitis. *Int J Immunopathol Pharmacol* 23 : 865-871, 2010.
- 135) **Tesse R, Spadavecchia L, Fanelli P, Rizzo G, Procoli U, Brunetti L.** et al : Treatment of severe vernal keratoconjunctivitis with 1% topical cyclosporine in an Italian cohort of 197 children. *Pediatr Allergy Immunol* 21 : 330-335, 2010.
- 136) **Lambiase A, Leonardi A, Sacchetti M, Deligianni V, Sposato S, Bonini S** : Topical cyclosporine prevents seasonal recurrences of vernal keratoconjunctivitis in a randomized, double-masked, controlled 2-year study. *J Allergy Clin Immunol* 128 : 896-897, 2011.
- 137) **Keklikci U, Dursun B, Cingu AK** : Topical cyclosporine a 0.05% eyedrops in the treatment of vernal keratoconjunctivitis- randomized placebo-controlled trial. *Adv Clin Exp Med* 23 : 455-461, 2014.
- 138) **Çoban-Karataş M, Özkale Y, Altan-Yaycıoğlu R, Sızmaç S, Pelit A, Metindoğan S.** et al : Efficacy of topical 0.05% cyclosporine treatment in children with severe vernal keratoconjunctivitis. *Turk J Pediatr* 56 : 410-417, 2014.
- 139) **Kauss Hornecker M, Charles Weber S, Brandely Piat ML, Darrodes M, Jomaa K, Chast F** : [Cyclosporine eye drops : A 4-year retrospective study (2009-2013)] (Article in French). *J Fr Ophthalmol* 38 : 700-708, 2015.
- 140) **Nebbioso M, Zicari AM, Celani C, Lollobrigida V, Grenga R, Duse M** : Pathogenesis of vernal keratoconjunctivitis and associated factors. *Semin Ophthalmol* 30 : 340-344, 2015.
- 141) **Utine CA, Stern M, Akpek EK** : Immunopathological Features of severe chronic atopic keratoconjunctivitis and effects of topical cyclosporine treatment. *Ocul Immunol Inflamm* 27 : 1184-1193, 2019.
- 142) **Akpek EK, Dart JK, Watson S, Christen W, Dursun D, Yoo S,** et al : A randomized trial of topical cyclosporin 0.05% in topical steroid-resistant atopic keratoconjunctivitis. *Ophthalmology* 111 : 476-482, 2004.
- 143) **Leonardi A, Doan S, Amrane M, Ismail D, Montero J, Németh J,** et al : **VEKTIS study Group** : A randomized, controlled trial of cyclosporine A cationic emulsion in pediatric vernal keratoconjunctivitis : the VEKTIS Study. *Ophthalmology* 126 : 671-681, 2019.
- 144) **Kosrirukvongs P, Vichyanond P, Wongsawad W** : Vernal keratoconjunctivitis in Thailand. *Asian Pac J Allergy Immunol* 21 : 25-30, 2003.
- 145) **Doan S, Gabison E, Abitbol O, Gatinel D, Chast F, Hoang-Xuan T** : [Efficacy of topical 2% cyclosporine A as a steroid-sparing agent in steroid-dependent vernal keratoconjunctivitis] (Article in French). *J Fr Ophthalmol* 30 : 697-701, 2007.
- 146) **Ozcan AA, Ersoz TR, Dulger E** : Management of severe allergic conjunctivitis with topical cyclosporin A 0.05% eyedrops. *Cornea* 26 : 1035-1038, 2007.
- 147) **Tzu JH, Utine CA, Stern ME, Akpek EK** : Topical calcineurin inhibitors in the treatment of steroid-dependent atopic keratoconjunctivitis. *Cornea* 31 : 649-654, 2012.
- 148) **Labcharoenwongs P, Jirapongsananuruk O, Visitsunthorn N, Kosrirukvongs P, Saengin P, Vichyanond P** : A double-masked comparison of 0.1% tacrolimus ointment and 2% cyclosporine eye drops in the treatment of vernal keratoconjunctivitis in children. *Asian Pac J Allergy Immunol* 30 : 177-184, 2012.
- 149) **Oray M, Toker E** : Tear cytokine levels in vernal keratoconjunctivitis : the effect of topical 0.05% cyclosporine a therapy. *Cornea* 32 : 1149-1154, 2013.
- 150) **Wan KH, Chen LJ, Rong SS, Pang CP, Young AL** : Topical cyclosporine in the treatment of allergic conjunctivitis : a meta-analysis. *Ophthalmology* 120 : 2197-2203, 2013.
- 151) **Wu MM, Yau GS, Lee JW, Wong AL, Tam VT, Yuen CY** : Retrospective review on the use of topical cyclosporin a 0.05% for paediatric allergic conjunctivitis in Hong Kong Chinese. *ScientificWorldJournal* 2014 : 396987, 2014.
- 152) **Yücel OE, Ulus ND** : Efficacy and safety of topical cyclosporine A 0.05% in vernal keratoconjunctivitis. *Singapore Med J* 57 : 507-510, 2016.
- 153) **Kumari R, Saha BC, Sinha BP, Mohan N** : Tacrolimus versus cyclosporine- comparative evaluation as first line drug in vernal keratoconjunctivitis. *Nepal J Ophthalmol* 9 : 128-135, 2017.
- 154) **Westland T, Patryn EK, Nieuwendaal CP, van der Meulen IJE, Mourits MP, Lapid-Gortzak R** : Vernal shield ulcers treated with frequently installed topical cyclosporine 0.05% eyedrops. *Int Ophthalmol* 38 : 363-368, 2018.
- 155) 水流忠彦, **Guillermo M, 藤野雄次郎** : 重症アトピー性角結膜炎に対するシクロスポリン点眼療法

- の効果と作用機序. 眼紀 47 : 1173-1178, 1996.
- 156) 大橋裕一, 大野重昭 : 抗アレルギー点眼液が効果不十分な春季カタルに対する0.1% DE-076(シクロスポリン)点眼液の臨床評価—プラセボを対照とした二重遮蔽比較実験(第Ⅱ/Ⅲ相試験)—. あたらしい眼科 24 : 1537-1546, 2007.
- 157) 合田千穂, 南場研一, 北市伸義, 大野重昭 : 春季カタルに対する0.1%シクロスポリン点眼液の臨床効果. 臨眼 62 : 1583-1588, 2008.
- 158) 原 祐子, 岡本茂樹, 大橋裕一 : 難治性アレルギー結膜疾患に対する0.05%シクロスポリン水溶性点眼薬の併用効果. あたらしい眼科 17 : 1009-1012, 2000.
- 159) 内尾英一, 荒川 明, 門之園一明 : 「痒みのメカニズムと制御」に寄せる アトピー性角結膜炎に対するシクロスポリン点眼薬の治療効果(アレルギーの臨床 29 : 798-801, 2009).
- 160) 高村悦子, 内尾英一, 海老原伸行, 岡本茂樹, 熊谷直樹, 庄司 純, 他 : 春季カタルに対するシクロスポリン点眼液0.1%の全例調査. 日眼会誌 115 : 508-515, 2011.
- 161) 小沢昌彦, ファン・ジェーン, 内尾英一 : 春季カタルの臨床像の最近5年間における推移. 臨眼 68 : 799-804, 2014.
- 162) 森 貴之, 川村朋子, 佐伯有祐, 内尾英一 : 春季カタルに対する免疫抑制点眼薬を用いたProactive療法の治療成績. あたらしい眼科 35 : 243-246, 2018.
- 163) Nivenius E, van der Ploeg I, Jung K, Chryssanthou E, van Hage M, Montan PG : Tacrolimus ointment vs steroid ointment for eyelid dermatitis in patients with atopic keratoconjunctivitis. Eye (Lond) 21 : 968-975, 2007.
- 164) Müller GG, José NK, de Castro RS : Topical tacrolimus 0.03% as sole therapy in vernal keratoconjunctivitis : a randomized double-masked study. Eye Contact Lens 40 : 79-83, 2014.
- 165) Zanjani H, Aminifard MN, Ghafourian A, Pourazizi M, Maleki A, Arish M, et al : Comparative evaluation of tacrolimus versus interferon alpha-2b eye drops in the treatment of vernal keratoconjunctivitis : a randomized, double-masked study. Cornea 36 : 675-678, 2017.
- 166) 小沢昌彦, 市頭教克, 梶原 淳, 内尾英一 : 重症型春季カタルに対するタクロリムス軟膏の眼軟膏治療. あたらしい眼科 26 : 525-528, 2009.
- 167) 堀 眞輔, 庄司 純, 稲田紀子, 澤 充 : タクロリムス点眼液0.1%で治療した春季カタル症例の涙液中アレルギー関連因子の検討. 日眼会誌 115 : 1079-1085, 2011.
- 168) 鳥山浩二, 原 裕子, 岡本茂樹, 大橋裕一 : 春季カタルに対する0.1%タクロリムス点眼液の使用成績. 眼臨紀 6 : 707-711, 2013.
- 169) 原田奈月子, 稲田紀子, 石森秋子, 庄司 純, 澤 充 : 春季カタルにおけるタクロリムス点眼液治療の臨床経過の検討. 日眼会誌 118 : 378-384, 2014.
- 170) 品川真有子, 南場研一, 北市伸義, 石田 晋 : 春季カタルにおけるタクロリムス点眼薬の長期使用成績. 臨眼 71 : 343-348, 2017.
- 171) 北野周作, 小暮文雄, 湯浅武之助, 佐久間 昭 : アレルギー性結膜炎および春季カタルに対する0.1% TBX 点眼液の臨床効果—Disodium Cromoglycate 点眼液を対照薬とした二重盲検試験. 眼紀 42 : 532-544, 1991.
- 172) 三國郁夫, 清水由規, 小暮文雄, 湯浅武之助, 雑賀寿和, 小川暢也 : アレルギー性結膜炎および春季カタルに対するトラニラスト点眼液の臨床評価—Disodium Cromoglycate 点眼液を対照薬とした二重盲検比較試験—. 臨床医薬 9 : 669-683, 1993.
- 173) 小暮文雄, 石崎道治, 雑賀寿和 : 春季カタルに対するトラニラスト点眼液の長期臨床試験. 臨床医薬 9 : 429-441, 1993.
- 174) 北野周作, 小暮文雄, 宮永嘉隆, 大野重昭, 三國郁夫, 湯浅武之助, 他 : アレルギー性結膜炎(花粉症を含む)および春季カタルに対するKC-404点眼液の臨床評価—Disodium Cromoglycate点眼液を対照薬とした比較試験—. あたらしい眼科 16 : 1449-1465, 1999.
- 175) 増田寛次郎, 北野周作, 清水由規, 三國郁夫, 湯浅武之助, 中島光好, 他 : アレルギー性結膜炎および春季カタルに対するWP-871点眼液の臨床効果—Disodium Cromoglycate 点眼液を対照とした二重盲検比較試験—. 臨床医薬 13 : 247-261, 1997.
- 176) 三國郁夫, 中島 章, 小暮文雄, 内田幸男, 北野周作, 清水由規, 他 : アレルギー性結膜炎および春季カタルに対するKetotifen点眼液の有効性, 安全性の検討—Multiclinic Open Trialの成績—. 臨床医薬 4 : 175-187, 1988.
- 177) 澤 充, 増田寛次郎, 北野周作, 内田幸男, 小暮文雄, 尾羽澤大, 他 : アレルギー性結膜炎および春季カタルに対するR 50547(Levocabastine Hydrochloride)点眼薬の臨床評価—Sodium Cromoglycate 点眼薬を対照薬とした単盲検比較試験. あたらしい眼科 12 : 333-350, 1995.
- 178) 雑賀寿和 : 0.1% ALO4943A点眼液のアレルギー性結膜炎を対象とした第Ⅲ相臨床試験0.1% ALO4943A 点眼液のアレルギー性結膜炎に対する0.05%フマル酸ケトチフェン点眼液を対照薬とした二重盲検比較試験. あたらしい眼科 23 : 1337-1352, 2006.
- 179) 和田道成 : 春季カタル治療剤「タリムス点眼液0.1%」の非臨床および臨床成績. 眼薬理 23 : 7-10, 2009.
- 180) Kino T, Hatanaka H, Miyata S, Inamura N, Nishiyama M, Yajima T, et al : FK-506, a novel immunosuppressant isolated from a Streptomyces. II. Immunosuppressive effect of FK-506 *in vitro*. J Antibiot (Tokyo) 40 : 1256-1265, 1987.
- 181) Yazu H, Shimizu E, Aketa N, Dogru M, Okada N, Fukagawa K, et al : The efficacy of 0.1% tacrolimus ophthalmic suspension in the treatment of severe atopic keratoconjunctivitis. Ann Allergy Asthma Immunol 122 : 387-392, 2019.