IV. 研究成果の刊行に関する一覧表

雑誌

	発表者氏名	論文タイトル名	発表誌名	巻号	ページ	出版年	報告書に掲載
1	Nishiya T, Matsumoto K, Maekawa S, Kajita E, Horinouchi T, Fujimuro M, Ogasawara K, Uehara T, Miwa S	Regulation of inducible nitric oxide synthase by the SPRY domain- and SOCS box-containing proteins.	J. Biol. Chem.		(in press)		
2	Honda T, Nakajima S, Egawa G, Ogasawara K, Malissen B, Miyachi Y, Kabashima K.	Compensatory role of Langerhans cells and langerin-positive dermal dendritic cells in the sensitization phase of murine contact hypersensitivity.	J Allergy Clin Immunol	125	1154-1156	2010	
3	Mori T, Ishida K, Mukumoto S, Yamada Y, Imokawa G, Kabashima K, Kobayashi M, Bito T, Nakamura M, Ogasawara K, Tokura Y.	Comparison of skin barrier function and sensory nerve electric current perception threshold between IgE-high extrinsic and IgE-normal intrinsic types of atopic dermatitis.	Br J Dermatol	162	83-90	2010	
4	Kumagai K, Hamada Y, Holmlund AB, Goto A, Nakaoka K, Arai G, Yamane S, Suzuki R	The levels of vascular endothelial growth factor in the synovial fluid correlated with the severity of arthroscopically observed synovitis and clinical outcome after temporomandibular joint irrigation in patients with chronic closed lock	Oral Surg Oral Med Oral Pathol Oral Radiol Endod	109	185-190	2010	*
5	Kumagai K, Hamada Y, Gotoh A, Kobayashi H, Kawaguchi K, Horie A, Yamada H, Suzuki S, Suzuki R	Evidence for the changes of antitumor immune response during lymph node metastasis in head and neck squamous cell carcinoma	Oral Surg Oral Med Oral Pathol Oral Radiol Endod	110	341-350	2010	
6	Kumagai K, Horikawa T, Gotoh A, Yamane S, Yamada H、Kobayashi H, Hamada Y, Suzuki S, Suzuki R	Up-regulation of EGF receptor and its ligands, AREG, EREG,and HB-EGF in oral lichen planus	Oral Surg Oral Med Oral Pathol Oral Radiol Endod	110	748-754	2010	

7	Tokura Y	Extrinsic and intrinsic types of atopic dermatitis.	J Dermatol Sci	58	1-7	2010	*
8	Nakamura M, Tokura Y	Expression of Snail1 in the fibrotic dermis of postmenopausal frontal fibrosing alopecia: possible involvement of an epithelial-mesenchymal transition and a review of the Japanese patients.	Br J Dermatol	162	1152-1154	2010	
9	Hino R, Kabashima K, Kato Y, Yagi H, Nakamura M, Honjo T, Okazaki T, Tokura Y	Tumor cell expression of programmed cell death 1 ligand 1 is a prognostic factor for malignant melanoma.	Cancer	116	1757-1766	2010	
10	Mori T, Ishida K, Mukumoto S, Yamada Y, Imokawa G, Kabashima K, Kobayashi M, Bito T, Nakamura M, Ogasawara K, Tokura Y	Comparison of skin barrier function and sensory nerve electric current perception threshold between IgE-high extrinsic and IgE-normal intrinsic types of atopic dermatitis.	Br J Dermatol	162	83-90	2010	
11	Yoshiki R, Kabashima K, Sakabe J-I, Sugita K, Bito T, Nakamura M, Malissen B, Tokura Y	The mandatory role of IL-10-producing and OX40L-expresssing mature Langerhans cells in local UVB-induced immunosuppression.	J Immunol	184	5670-5677	2010	*
12	Sugita K, Kabashima K, Sakabe J, Yoshiki R, Tanizaki H, Tokura Y	FTY720 regulates bone marrow egress of eosinophils and modulates late-phase skin reaction in mice.	Am J Pathol	177	1881-1887	2010	
13	Sugita K, Tohyama M, Watanabe H, Otsuka A, Nakajima S, Iijima M, Hashimoto K, Tokura Y, Miyachi Y, Kabashima K	Fluctuation of blood and skin plasmacytoid dendritic cells in drug-induced hypersensitivity syndrome.	J Allergy Clin Immunol	126	408-410	2010	
14	Sugita K, Kabashima K, Yoshiki R, Ikenouchi-Sugita A, Tsutsui M, Nakamura J, Yanagihara N, Tokura Y	Inducible nitric oxide synthase downmodulates contact hypersensitivity by suppressing dendritic cell migration and survival.	J Invest Dermatol	130	464-471	2010	*
15	Sawada Y, Nakamura M, Bito T, Fukamachi S, Kabashima R, Sugita K, Hino R, Tokura Y	Cholinergic urticaria studies on the muscarinic cholinergic receptor M3 in anhidrotic and hypohidrotic skin.	J Invest Dermatol	130	2683-2686	2010	*

16	Bito T, Izu K, Tokura Y	Evaluation of toxicity and Stat3 activation induced by hydrogen peroxide exposure to the skin in healthy individuals.	J Dermatol Sci	58	157–159	2010	
17	Bito T, Sumita N, Masaki T, Shirakawa T, Ueda M, Yoshiki R, Tokura Y, Nishigori C	Ultraviolet light induces Stat3 activation in human keratinocytes and fibroblasts through reactive oxygen species and DNA damage.	Exp Dermatol	19	654—660	2010	*
18	Moniaga CS, Egawa G, Kawasaki H, Chikuma M, Honda T, Tanizaki H, Nakajima S, Matsuoka H, Kubo A, Tokura Y, Miyachi Y, Amagai M, Kabashima K	Flaky tail mouse denotes human atopic dermatitis in the steady state and by topical application with Dermatophagoides pteronyssimus extract.	Am J Pathol	176	2385–2393	2010	
19	Tomura M, Honda T, Tanizaki H, Otsuka A, Egawa G, Tokura Y, Waldmann H, Hori S, Cyster JG, Watanabe T, Miyachi Y, Kanagawa O, Kabashima K	Activated regulatory T cells are the major T cell type emigrating from the skin during a cutaneous immune response in mice.	J Clin Invest	120	883–893	2010	
20	Nakamura M, Sugita K, Tokura Y	A novel missense mutation in the TRPS1 gene in a case of trichorhinophalangeal syndrome type I (TRPS1) with fish-like malodour.	J Eur Acad Dermatol Venereol	24	358–359	2010	
21	Nakamura M, Tokura Y	A novel missense mutation in tumour necrosis factor receptor superfamily 1A (TNFRSF1A) gene found in tumour necrosis factor receptor-associated periodic syndrome (TRAPS) with high serum interleukin (IL)-22.	Eur J Dermatol	20	508–509	2010	
22	Nakamura M, Tokura Y	Multiple pilomatricomas in association with 21-hydroxylase deficiency.	Ped Dermatol	27	417	2010	
23	Nakamura M, Fukamachi S, Tokura Y	Acute onset disseminated superficial porokeratosis associated with exacerbation of diabetes mellitus due to development of anti-insulin antibodies.	Dermatoendocrinol	2	17–18	2010	

24	Nakamura M, Sugita K, Tokura Y	Expression of Snail1 in the vimentin-expressing squamous cell carcinoma mimicking atypical fibroxanthoma: possible involvement of an epithelial-mesenchymal transition.	J Eur Acad Dermatol Venereol	24	1365-1366	2010	
25	Yoshiki R, Nakamura M, Tokura Y	Drug eruption induced by IL-6 receptor inhibitor tocilizumab.	J Eur Acad Dermatol Venereol	24	495-496	2010	
26	Kabashima R, Hino R, Bito T, Kabashima K, Nakamura M, Ohyama B, Hashimoto T, Tokura Y	Epidermolysis bullosa acquisita associated with psoriasis.	Acta Derm Venereol	90	314-316	2010	
27	Sawada Y, Bito T, Kabashima R, Yoshiki R, Hino R, Nakamura M, Shiraishi M, Tokura Y	Ectopic extramammary Paget's disease: case report and literature review.	Acta Derm Venereol	90	502-505	2010	
28	Sawada Y, Yoshiki R, Kawakami C, Fukamachi S, Sugita K, Nakamura M, Tokura Y	Valsartan-induced drug eruption followed by CD30+ pesudolymphomatous eruption.	Acta Derm Venereol	90	521-522	2010	
29	Sawada Y, Sugita K, Kabashima R, Hino R, Nakamura M, Koga C, Tokura Y	CD8+ CD56+ mycosis fungoides with an indolent clinical behaviour: case report and literature review.	Acta Derm Venereol	90	525-526	2010	
30	Sawada Y, Bito T, Kawakami C, Shimauchi T, Nakamura M, Tokura Y	Erosive pustular dermatosis of the scalp and leg associated with myasthenia gravis: A possible pathogenetic role for neutrophil-stimulating cytokines and chemokines.	Acta derm Venereol	90	652-653	2010	
31	Sawada Y, Nakamura M, Bito T, Haruyama S, Kabashima R, Sugita K, Kobayashi M, Tokura Y	Chondrodermatitis of the auricle in patients with atopic dermatitis.	Eur J Dermatol	20	813-814	2010	
32	Ohmori S, Sugita K, Sawada Y, Hino R, Nakamura M, Tokura Y	Angiolymphoid hyperplasia with eosinophilia occurring on the penis.	Eur J Dermatol	20	545-546	2010	
33	Fukamachi S, Kimura T, Kobayashi M, Hino R, Nakamura M, Tokura Y	Palmar pseudolymphoma associated with herpes simplex infection.	J Cutan Pathol	37	808-811	2010	
34	Abe S, Kabashima K, Moriyama T, Tokura Y	Food-dependent anaphylaxis with serum IgE immunoreactive to dairy products containing	J Dermatol Sci	57	137-140	2010	

		high-molecular-weight proteins.					
35	Haruyama S, Sugita K, Kawakami C, Nakamura M, Tokura Y	Development of a Prominent Granulomatous Eruption after Interferon-γ Therapy in a Patient with Mycosis Fungoides.	Acta Derm Venereol	90	190-191	2010	
36	Haruyama S, Sugita K, Kawakami C, Nakamura M, Tokura Y	Spinal cord compression presumably due to metastasized cutaneous squamous cell carcinoma to the thoracic spine.	J UOEH	32	155-159	2010	
37	Koga C, Sugita K, Kabashima K, Matsuoka H, Nakamura M, Tokura Y	High responses of peripheral lymphocytes to mosquito salivary gland extracts in patients with Wells' syndrome.	J Am Acad Dermatol	63	160-161	2010	
38	Ine K, Kabashima K, Koga C, Kobayashi M, Tokura Y	Eruptive generalized granuloma annulare presenting with numerous micropapules.	Int J Dermatol	49	104-105	2010	
39	Bito T, Kawakami C, Shimajiri S, Tokura Y	Generalized eruptive xanthoma with prominent deposition of naked chylomicrons: evidence for chylomicrons as the origin of urate-like crystals.	J Cutan Pathol	37	1161-1163	2010	
40	Tanizaki H, Matsumura Y, Tokura Y, Miyachi Y, Kabashima K	A case of suppurative granuloma induced by insulin injection.	Acta Derm Venereol	90	540-541	2010	
41	Nishitani N, Bito T, Ikeda T, Tokura Y, Nishigori C	Complete remission of metastatic malignant melanoma after surgery in association with development of systemic vitiligo.	J Dermatol	37	770-772	2010	
42	Nakamura M, Tokura Y	Epithelial-mesenchymal transition in the skin.	J Dermatol Sci	61	7-13	2010	*
43	Nakamura M, Tokura Y	Pathogenesis of alopecia areata: why does alopecia areata develop in a round pattern?	Exp Dermatol		(in press)	2010	
44	Honda T, Tokura Y, Miyachi Y, Kabashima K	Prostanoid receptors as possible targets for anti-allergic drugs: Recent advances in prostanoids on allergy and immunology.	Current Drug Targets		(in press)	2010	
45	Nakamura M, Tokura Y	Expression of SNAI1 and TWIST1 in the eccrine glands	Br J Dermatol		(in press)	2010	

		of systemic sclerosis patients: possible involvement of epithelial–mesenchymal transition in the pathogenesis.					
46	Hino R, Kabashima R, Kawakami C, Sugita K, Nakamura M, Tokura Y	Peripheral blood T cell fluctuation in psoriatic patients treated with combination therapy of calcipotriol and betamethasone butyrate propionate ointment.	J Eur Acad Dermatol Venereol		(in press)	2010	
47	Fukamachi S, Mori T, Sakabe J, Shiraishi N, Kuroda E, Kobayashi M, Bito T, Kabashima K, Nakamura M, Tokura Y	Topical Cholecystokinin Depresses Itch–Associated Scratching Behavior in Mice.	J Invest Dermatol		(in press)	2010	*
48	Fukamachi S, Bito T, Shiraishi N, Kobayashi M, Kabashima K, Nakamura M, Tokura Y	Modulation of semaphorin 3A expression by calcium concentration and histamine in human keratinocytes and fibroblasts.	J Dermatol Sci		(in press)	2010	
49	Bito T, Sumita N, Ashida M, Budiyanto A, Ueda M, Ichihashi M, Tokura Y, Nishigori C	Inhibition of epidermal growth factor receptor and PI3K/Akt signaling suppresses cell proliferation and survival through regulation of Stat3 activation in human cutaneous squamous cell carcinoma.	J Skin Cancer		(in press)	2010	
50	Nakamura M, Tokura Y	Superficial angiomyxoma on the scrotum of a child.	Ped Dermatol		(in press)	2010	
51	Nakamura M, Tokura Y	Congenital onychodysplasia of the index finger in a child with meconium aspiration syndrome.	Int J Dermatol		(in press)	2010	
52	Nakamura M, Tokura Y	Systemic cholesterol embolization syndrome in a patient positive for anti–cardiolipin antibody.	Dermatoendocrinol		(in press)	2010	
53	Nakamura M, Tokura Y	Methylmalonic aciduria presenting with recurrent multiple molluscum contagiosum lesions.	Dermatoendocrinol		(in press)	2010	
54	Kobayashi M, Tokura Y	Downmodulatory effects of cetirizine and levocetirizine on cytokine/chemokine production and CD54 expression in keratinocytes.	J Dermatol		(in press)	2010	

55	Kabashima R, Sugita K, Sawada Y, Hino R, Nakamura M, Tokura Y	Increased circulating Th17 frequencies and serum IL-22 levels in patients with acute generalized exanthematous pustulosis.	J Eur Acad Dermatol Venereol		(in press)	2010	*
56	Sawada Y, Bito T, Kabashima R, Sugita K, Nakamura M, Tokura Y	Epileptic seizures and cholinergic urticaria with generalized hypohidrosis or anhidrosis.	Eur J Dermatol		(in press)	2010	
57	Sawada Y, Mori T, Nakashima D, Nakamura M, Tokura Y	Necrobiosis lipoidica of the scrotum.	Eur J Dermatol		(in press)	2010	
58	Sawada Y, Nakamura M, Tokura Y	Multiple fixed drug eruption caused by pazufloxacin.	Acta Derm Venereol		(in press)	2010	
59	Fueki H, Sugita K, Nakamura M, Tokura Y	Acquired poikiloderma associated with primary biliary cirrhosis.	Eur J Dermatol		(in press)	2010	
60	Fukamachi S, Sugita K, Nakamura M, Tokura Y	Cutaneous pseudolymphoma due to benidipine hydrochloride with massive infiltration of eosinophils.	J Dermatol		(in press)	2010	
61	Yoshizawa M, Sugita K, Haruyama S, Yoshiki R, Hino R, Bito T, Nakamura M, Tokura Y	Schwannomatosis presenting with large subcutaneous and retroperitoneal tumours: report of a case and review of the literature.	Clin Exp Dermatol		(in press)	2010	
62	Bito T, Kabashima R, Sugita K, Tokura Y	Angiolymphoid hyperplasia with eosinophilia on the leg successfully treated with Th2 cytokine inhibitor suplatast tonsilate.	J Dermatol		(in press)	2010	
63	Nakamizo S, Kurosawa M, Sawada Y, Tokura Y, Miyachi Y, Kabashima K	A case of cholinergic urticaria associated with acquired generalized hypohidrosis and reduced acetylcholine receptors: cause and effect?	Clin Exp Dermatol		(in press)	2010	
64	Park K, Mori M, Nakamura M, Tokura Y	Increased expression of mRNAs for IL-4, IL-17, IL-22 and IL-31 in skin lesions of subacute and chronic forms of prurigo.	Eur J Dermatol		(in press)	2010	*
65	Komune N, Hara T, Tamae A, Izu K, Tokura Y, Joe AK, Masuda M	A case of laryngeal carcinoma in a young adult with dyskeratosis congenita.	Int J Clin Oncol		(in press)	2010	
66	Sugita K, Kabashima R,	Therapeutic efficacy of	Clin Exp		(in press)	2010	

	Kawakami C, Nakamura M, Tokura Y	mizoribine for discoid lupus erythematosus with normalized frequency of circulating T helper 17 cells.	Dermatol				
67	Abe-Mukumoto S, Mori T, Sakabe JI, Fukamachi S, Nakamura M, Kabashima K, Tokura Y	Molecular Mapping of Lymph Node Metastases by Real-Time RT-PCR in Two Melanoma Patients.	J Dermatol		(in press)	2010	
68	Sawada Y, Hino R, Hama K, Ohmori S, Furki H, Yamada S, Fukamachi S, Tajiri M, Kubo R, Yoshioka M, Nakashima D, Sugita K, Yoshiki R, Shimauchi T, Mori T, Izu K, Kobayashi M, Nakamura M, Tokura Y	The type of skin eruptions is an independent prognostic indicator for adult T-cell leukemia/lymphoma.	Blood		(in press)	2010	
69	Nishiya T, Matsumoto K, Maekawa S, Kajita E, Horinouchi T, Fujimuro M, Ogasawara K, Uehara T, Miwa S	Regulation of inducible nitric oxide synthase by the SPRY domain- and SOCS box-containing proteins.	J. Biol. Chem. (in press)		(in press)	2011	*
70	Uehara T, Nishiya T	Screening systems for the identification of S-nitrosylated proteins.	Nitric Oxide (in press)		(in press)	2011	*
71	Higa T, Horinouchi T, Aoyagi H, Asano H, Nishiya T, Nishimoto A, Muramatsu I, Miwa S	Endothelin Type B Receptor-Induced Sustained Ca^{2+} Influx Involves $G_{q/11}$/Phospholipase C-Independent, p38 Mitogen-Activated Protein Kinase-Dependent Activation of Na^{+}/H^{+} Exchanger	J. Pharmacol. Sci.	113 (3)	276-280	2010	*
72	Wang KY, Tanimoto A, Guo X, Yamada S, Shimajiri S, Murata Y, Ding Y, Tsutsui M, Kato S, Watanabe T, Ohtsu H, Hirano K, Kohno K, Sasaguri Y	Histamine deficiency decreases atherosclerosis and inflammatory response in ApoE-KO mice independently on serum cholesterol level.	Arterioscler Thromb Vasc Biol (in press)		(in press)	2011	*
73	Fan YY, Hu WW, Dai HB, Zhang JX, Zhang LY, He P, Shen Y, Ohtsu H, Wei EQ, Chen Z.	Activation of the central histaminergic system is involved in hypoxia-induced stroke tolerance in adult mice.	J Cereb Blood Flow Metab	31	305-314	2011	*
74	Gong YX, Shou WT, Feng	Ameliorating effect of	Acta	31	1431-1437	2010	

	B, Zhang WP, Wang HJ, Ohtsu H, Chen Z	histamine on impairment of cued fear extinction induced by morphine withdrawal in histidine decarboxylase gene knockout mice.	Pharmacol Sin				
75	Shen Y, He P, Fan YY, Zhang JX, Yan HJ, Hu WW, Ohtsu H, Chen Z	Carnosine protects against permanent cerebral ischemia in histidine decarboxylase knock-out mice through reducing glutamate excitotoxicity.	Free Radic Biol Med	48	727-735	2010	*
76	Hirasawa N, Goi Y, Tanaka R, Ishihara K, Ohtsu H, Ohuchi K	Involvement of prostaglandins and histamine in nickel wire-induced acute inflammation in mice.	J Biomed Mater Res A	95	1306-1311	2010	*
77	Seike M, Furuya K, Ohmura M, Watanabe K, Ohtsu H	Histamine H4 receptor antagonist ameliorates chronic allergic contact dermatitis induced by repeated challenge.	Allergy	65	319-326	2010	*
78	Tanaka R, Goi Y, Ishihara K, Ueda K, Narushima T, Ohtsu H, Hiratsuka M, Hirasawa N	Enhancement of nickel elution by lipopolysaccharide-indued inflammation	J. Derm. Sci		(in press)		
79	Tanaka R, Goi Y, Ishihara K, Ueda K, Narushima T, Ohtsu H, Ohuchi K, Hiratsuka M, Hirasawa N	Assessment of the release of nickel from biomaterials in vivo and in vitro: enhancement by lipopolysaccharide	Inflam. Regene		(in press)		
80	Sato N, Ishihara K, Hiratsuka M, Hirasawa N	Induction of thymic stromal lymphopoietin by chemical compounds in vivo and exacerbation of allergy	Inflam. Regene		(in press)		
81	Ishihara K, Okuyama S, Kumano S, Iida K, Hamana H, Murakoshi M, Kobayashi T, Usami S, Ikeda K, Haga Y, Tsumoto K, Nakamura H, Hirasawa N, Wada H	Salicylate restores transport function and anion exchanger activity of missense pendrin mutations	Hearing Research	270	110-118	2010	
82	Kudo M, Sasaki T, Ishikawa M, Hirasawa N, Hiratsuka M	Kinetic of 6-thioxanthine metabolism by allelic variants of xanthine oxidase	Drug Metabo. Pharmacokinet.	25	361-366	2010	
83	Kudo M, Sasaki S, Ishikawa M, Hirasawa N, Hiratsuka M	Functional characterization of genetic polymorphisms identified in the promoter region of the xanthine oxidase	Drug Metabo. Pharmacokinet	25	599-604	2010	

		gene					
84	Watanabe T, Sakuyama K, Sasaki T, Ishii Y, Ishikawa M, Hirasawa N, Hiratsuka M	Functional characterization of 26 CYP2B6 allelic variants (CYP2B6.2-CYP2B6.28, except CYP2B6.22)	Pharmacogen et. Genom	20	459-462	2010	
85	Hirasawa N, Goi Y, Tanaka R, Ishihara K, Ohtsu H, Ohuchi K	Involvement of prostaglandins and histamine in Nickel wire-induced acute inflammation in mice.	J. Biomedical Materials Research	93A	1306-1311	2010	*
86	Honda T, Miyachi Y, Kabashima K	The role of regulatory T cells in contact hypersensitivity.	Recent Pat Inflamm Allergy Drug Discov	4	85-89	2010	*
87	Honda T, Tokura Y, Miyachi Y, Kabashima K	Prostanoid receptors as possible targets for anti-allergic drugs: recent advances in prostanoids on allergy and immunology.	Curr Drug Targets	11	1605-1613	2010	*
88	Kambe N, Longley BJ, Miyachi Y, Kabashima K	KIT Masters Mast Cells in Kids, Too.	J Invest Dermatol	130	648-650	2010	
89	Moniaga CS, Egawa G, Doi H, Miyachi Y, Kabashima K	Histamine modulates the responsiveness of keratinocytes to IL-17 and TNF-alpha through the H1-receptor.	J Dermatol Sci	61	79-81	2010	*
90	Moniaga CS, Egawa G, Kawasaki H, Hara-Chikuma M, Honda T, Tanizaki H, Nakajima S, Otsuka A, Matsuoka H, Kubo A, Sakabe J, Tokura Y, Miyachi Y, Amagai M, Kabashima K	Flaky tail mouse denotes human atopic dermatitis in the steady state and by topical application with Dermatophagoides pteronyssinus extract.	Am J Pathol	1763	2385-2389	2010	*
91	Mori T, Ishida K, Mukumoto S, Yamada Y, Imokawa G, Kabashima K, Kobayashi M, Bito T, Nakamura M, Ogasawara K, Tokura Y	Comparison of skin barrier function and sensory nerve electric current perception threshold between IgE-high extrinsic and IgE-normal intrinsic types of atopic dermatitis.	Br J Dermatol	162	83-90	2010	
92	Nakajima S, Honda T, Sakata D, Egawa G, Tanizaki H, Otsuka A, Moniaga CS, Watanabe T, Miyachi Y, Narumiya S,	Prostaglandin I2-IP signaling promotes Th1 differentiation in a mouse model of contact hypersensitivity.	J Immunol	184	5595-5603	2010	

	Kabashima K						
93	Tanizaki H, Egawa G, Inaba K, Honda T, Nakajima S, Moniaga CS, Otsuka A, Ishizaki T, Tomura M, Watanabe T, Miyachi Y, Narumiya S, Okada T, Kabashima K	Rho-mDia1 pathway is required for adhesion, migration, and T-cell stimulation in dendritic cells.	Blood	116	5875-5884	2010	*
94	Honda T, Otsuka A, Tanizaki H, Minegaki Y, Nagao K, Waldmann H, Tomura M, Hori S, Miyachi Y, Kabashima K	Enhanced murine contact hypersensitivity by depletion of endogenous regulatory T cells in the sensitization phase.	J Dermatol Sci		(in press)	2010	*
95	Nakahigashi K, Kabashima K, Ikoma A, Verkman AS, Miyachi Y, Hara-Chikuma M	Upregulation of Aquaporin-3 Is Involved in Keratinocyte Proliferation and Epidermal Hyperplasia.	J Invest Dermatol		(in press)	2010	*
96	Hattori K, Nishikawa M, Watcharanurak K, Ikoma A, Kabashima K, Toyota H, Takahashi Y, Takahashi R, Watanabe Y, Takakura Y	Sustained exogenous expression of therapeutic levels of IFN-gamma ameliorates atopic dermatitis in NC/Nga mice via Th1 polarization.	J Immunol	184	2729-2733	2010	
97	Tomura M, Honda T, Tanizaki H, Otsuka A, Egawa G, Tokura Y, Waldmann H, Hori S, Cyster JG, Watanabe T, Miyachi Y, Kanagawa O, Kabashima K	Activated regulatory T cells are major T cell type emigrating from the skin during a cutaneous immune response in mice.	J Clin Invest	120	883-893	2010	*
98	Honda T, Nakajima S, Egawa G, Malissen B, Ogasawara K, Miyachi Y, Kabashima K	Compensatory role of Langerhans cells and Langerin positive dermal dendritic cells in the sensitization phase of mouse contact hypersensitivity.	J Allergy Clin Immunol.	125	1154-1156 e2	2010	*
99	Sugita K, Kabashima K, Yoshiki R, Ikenouchi-Sugita A, Tsutsui M, Nakamura J, Yanagihara N, Tokura Y	Inducible Nitric Oxide Synthase Downmodulates Contact Hypersensitivity by Suppressing Dendritic Cell Migration and Survival.	J Invest Dermatol	130	464-471	2010	
100	Hashizume H, Hansen A, Poulsen LK, Thomsen AR, Takigawa M, Thestrup-Pedersen K	In vitro propagation and dynamics of T cells from skin biopsies by methods using interleukins-2 and -4 or	Acta Derm Venereol	90	468-473	2010	*

		anti-CD3/CD28 antibody-coated microbeads.					
101	Ito T, Hashizume H, Takigawa M	Contact immunotherapy-induced Renbok phenomenon in a patient with alopecia areata and psoriasis vulgaris.	Eur J Dermatol	20	126-127	2010	*
102	Suda T, Kono M, Nakamura Y, Enomoto N, Kaida Y, Fujisawa T, Imokawa S, Yasuda K, Hashizume H, Yokomura K, Toyoshima M, Koshimizu N, Suganuma H, Shirai T, Hashimoto D, Inui N, Colby TV, Chida K	Distinct prognosis of idiopathic nonspecific interstitial pneumonia (NSIP) fulfilling criteria for undifferentiated connective tissue disease (UCTD).	Respir Med	104	1527-1534	2010	*
103	橋爪秀夫	薬疹はどうして起こるか 薬疹発症メカニズムの不思議.	Journal of Environmental Dermatology and Cutaneous Allergology	4巻2号	67-75	2010	*
104	藤山俊晴、渡邉佑子、橋爪秀夫	【薬疹-2010】臨床例 皮膚浸潤 CD4 陽性細胞中に HHV-6 抗原を証明しえた drug-induced hypersensitivity syndrome (DIHS).	皮膚病診療	32巻8号	891-894	2010	*
105	橋爪秀夫	derm@tology モルトリンフォーマ.	皮膚アレルギーフロンティア	8巻2号	128	2010	*
106	橋爪秀夫	【薬剤アレルギーの診断と治療の進歩】重症薬疹の治療.	臨床免疫・アレルギー科	53巻3号	292-300	2010	*
107	古川福実、伊豆邦夫、橋爪秀夫	【小児の発疹の診かた】川崎病にみられる発疹.	小児内科	42巻1号	93-98	2010	*
108	川村哲也、山本真由美、藤山俊晴、伊藤泰介、橋爪秀夫、深水秀一	術後15年後に発症した悪性黒色腫.	臨床皮膚科	64巻12号	951-955	2010	*
109	金林純子、粳田和美、橋爪秀夫	スポロトリコーシスの1例	Visual Dermatology	10巻1号	74-75	2011	*
110	平澤典保、大内和雄	増悪化アレルギー性皮膚炎症におけるヒスタミンの役割	薬学雑誌	131	179-184	2011	

書籍

（欧文）

	著者氏名	論文タイトル名	書籍全体の編集者名	書籍名	出版社名	出版地	ページ	出版年	報告書に掲載
1	Tokura Y	Hypersensitivity to mosquito bites and EBV	22nd World Congress of Dermatology	WCD Special Book			in press		
2	Ohtsu H	Histamine synthesis and lessons learned from histidine decarboxylase deficient mice.	Robin L. Thurmond	Histamine in inflammation: Advances in Experimental Medicine and Biology, Vol. 709	Springer	Austen Texas	144	2011	

（和文）

	著者氏名	論文タイトル名	書籍全体の編集者名	書籍名	出版社名	出版地	ページ	出版年	報告書に掲載
3	織茂弘志、戸倉新樹	皮膚科用薬	高久史麿	治療薬ハンドブック2010	じほう	東京	220-226	2010	
4	戸倉新樹	皮膚そう痒症	泉孝英	ガイドライン外来診療 2010	日経BP社	東京	306-310	2010	
5	戸倉新樹	光線過敏症，光線皮膚炎，日光曝露，先天性骨髄性ポルフィリン症，腸性肢端皮膚炎，慢性光線性皮膚炎	和田攻、南裕子、小峰光博	看護大辞典 第2版	医学書院	東京		2010	

6	戸倉新樹	せつ，よう，せつ腫症	金澤一郎、永井良三	今日の治療指針 第6版	医学書院	東京	1578-1580	2010	
7	戸倉新樹	紅皮症	瀧川雅浩	標準皮膚科学 第9版	医学書院	東京	106-109	2010	
8	礒田英華、戸倉新樹	職業性皮膚疾患で知るべきこと	宮地良樹	WHAT'S NEW in 皮膚科学 2010-2011	メディカルトリビューン社	東京	58-59	2010	
9	戸倉新樹	尋常性ざ瘡	五十嵐隆	小児科臨床ピクシス17	中山書店	東京	100-101	2010	
10	戸倉新樹	リンパ球	戸倉新樹	ファーストステップ皮膚免疫学	中外医学社	東京	2-10	2010	
11	戸倉新樹	乾癬の免疫学的なメカニズム	戸倉新樹	ファーストステップ皮膚免疫学	中外医学社	東京	92-98	2010	
12	戸倉新樹	光アレルギーによる光線過敏症	戸倉新樹	ファーストステップ皮膚免疫学	中外医学社	東京	131-141	2010	
13	戸倉新樹	成人T細胞白血病-リンパ腫	日本皮膚悪性腫瘍学会	皮膚悪性腫瘍取扱い規約 第2版	金原出版	東京	139-144	2010	
14	戸倉新樹	光と免疫能	太陽紫外線防御研究委員会	からだと光の事典	朝倉書店	東京	159-162	2010	
15	戸倉新樹	慢性光線性皮膚炎	太陽紫外線防御研究委員会	からだと光の事典	朝倉書店	東京	187-188	2010	
16	織茂弘志、戸倉新樹	皮膚科用薬	高久史麿	治療薬ハンドブック	じほう	東京	226-232	2011	
17	戸倉新樹	局面状類乾癬	宮地良樹、北徹	高齢者の皮膚トラブルFAQ	診断と治療社	東京	266-267	2011	
18	戸倉新樹	アトピー性皮膚炎における獲得免疫の異常	古江増隆、中村晃一郎	皮膚科臨床アセット1 アトピー性皮膚炎	中山書店	東京	130-135	2011	
19	椛島健治	皮膚科との接点	清野宏	臨床粘膜免疫学	シナジー	東京	681-691	2010	
20	椛島健治	脂質メディエーターと皮膚免	横溝岳彦	脂質生物学(実験医	羊土社	東京	3395-3340	2010	

		疫･アレルギー疾患		学増刊)					
21	本田哲也、椛島健治	樹状細胞	戸倉新樹	ファーストステップ皮膚免疫学	中外医学社	東京	11-22	2010	
22	江川形平、椛島健治	接触皮膚炎の免疫学的メカニズム	戸倉新樹	ファーストステップ皮膚免疫学	中外医学社	東京	99-105	2010	
23	橋爪秀夫	皮膚悪性リンパ腫	山口徹、福井次矢、北原光夫	今日の治療指針2011	医学書院	東京	1053-1054	2011	*
24	橋爪秀夫	湿疹(アトピー性皮膚炎･接触皮膚炎)	泉　孝英	ガイドライン外来診療2010	日経メディカル開発	東京	293-301	2010	*
25	橋爪秀夫	貨幣状湿疹、自家感作性皮膚炎	瀧川雅浩、渡辺晋一	皮膚疾患最新の治療2011-2012	南江堂	東京	48	2011	*

V. 研究成果の刊行物・別刷

The levels of vascular endothelial growth factor in the synovial fluid correlated with the severity of arthroscopically observed synovitis and clinical outcome after temporomandibular joint irrigation in patients with chronic closed lock

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Objective. This study aimed to investigate the level of vascular endothelial growth factor (VEGF) in the temporomandibular joint (TMJ) synovial fluid (SF) and the severity of arthroscopically observed synovitis before and after visually guided TMJ irrigation (VGIR) in patients with chronic closed lock (CCL). In addition, the findings were correlated with the clinical outcome.

Study design. Twenty-four patients with unilateral CCL, who underwent a second VGIR either as a repeated therapeutic TMJ irrigation or as a follow-up arthroscopy, were enrolled in the study. They were divided into either successful (s-group; n = 11) and unsuccessful (u-group; n = 13) groups. The VEGF level in the aspirated SF and the severity of synovitis were compared between the s- and u-groups. In each group, the same parameters were compared before and after VGIR. The correlation of the VEGF level with the severity of synovitis was also studied.

Results. At the first VGIR, the VEGF levels showed no significant differences when comparing s- and u-groups. At the second VGIR, the VEGF level was significantly higher in the u-group. The VEGF level significantly decreased after the first VGIR in the s-group but remained unchanged in the u-group. There was no significant correlation between the VEGF level and the severity of synovitis.

Conclusions. The level of VEGF in TMJ SF seems to reflect the clinical status in patients with CCL. Moreover, VEGF may be an important target molecule in future chemotherapy of TMJ CCL. **(Oral Surg Oral Med Oral Pathol Oral Radiol Endod 2010;109:185-190)**

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Visually guided temporomandibular joint (TMJ) irrigation (VGIR) is a simple and effective treatment in patients with symptomatic internal derangement (ID) and osteoarthritis (OA).[1-3] The VGIR technique enables arthroscopic observation with a 1.2-mm-diameter rod-lens arthroscope and simultaneous irrigation of the superior joint compartment (SJC) under local anesthesia. It is also a valuable tool for outcome assessments,[4-9] and we have previously reported that VGIR may contribute to the remission of arthroscopically observed synovitis.[7] However, the severity of arthroscopic findings of OA, synovitis, or fibrous adhesion do not seem to be reflected by the clinical state in patients with chronic closed lock (CCL).[4-9]

The clinical efficiency of TMJ irrigation is thought to reduce TMJ pain by washing out various biochemical mediators in the synovial fluid (SF), such as pro-inflammatory cytokines.[10-15] Regarding the correlation between the levels of cytokines in the TMJ SF and clinical outcome of TMJ irrigation for ID and OA, Ishimaru et al.[15] reported that the concentration of matrix metalloproteinase 3 and its ratios to total protein and albumin decreased significantly after a successful

TMJ irrigation combined with postoperative medication with a cyclooxygenase-2 inhibitor. The prevalence of interleukin-10 in the SF has been considered to be a strong predictor of successful outcome after TMJ irrigation.[6,16] Although CCL has been recognized as an inflammatory disease,[17] we have not found any inflammatory mediators in the SF that strictly link to the clinical state.

Vascular endothelial growth factor (VEGF), known to participate in angiogenesis and vascular permeability, has been detected in the serum and SF in patients with rheumatoid arthritis (RA) and OA and is suggested to be an indicator of RA disease activity.[18] It has also been detected in TMJ SF. Moreover, in TMJs with CCL, synovitis with growth of small new blood vessels has been frequently observed during arthroscopic examination,[19-23] and the number of vessels significantly correlated with the degree of arthroscopically diagnosed synovitis.[21,23]

With this background, we hypothesized that VEGF in the TMJ SF is involved in the pathogenesis of synovitis and may influence the clinical outcome after treatment of CCL. We therefore studied the level of VEGF in the TMJ SF and the severity of arthroscopically observed synovitis before and after VGIR in patients with CCL. Moreover, these findings were correlated with the clinical outcome after VGIR.

MATERIAL AND METHODS

Patients and clinical assessments

The inclusion criteria for the study were a clinical diagnosis of unilateral CCL, defined as a persistent restricted mouth opening with functional TMJ pain for more than 3 months, and MRI findings of nonreduced disc displacement with or without signs of OA in the affected TMJ. The exclusion criteria were previous severe jaw trauma, previous TMJ surgeries, or other TMJ diseases.

Forty-five patients (13 men, 32 women) were enrolled in the study and underwent a first VGIR. All of them had unconscious bruxism which was proved by attrition, oppressive pain or discomfort of masticatory muscles, and awareness of their clenching habit. Moreover, 36 of the 45 patients had OA signs on the MRI. Before VGIR, they had all received nonsurgical treatment comprising medication, physiotherapy, and/or nocturnal bite splint therapy for more than 1 month, without success. Any nonsteroidal antiinflammatory drugs (NSAIDs), muscle relaxants, or minor tranquilizers were interrupted at least 2 weeks before VGIR to prevent any influence on the parameters being studied.

The VGIR technique was performed under local anesthesia, according to previously described procedures.[4,5,8,9,16] Briefly, the VGIR involved a simple irrigation of the SJC with >150 mL physiologic saline solution under arthroscopic observation using a 1.2-mm-diameter rod-lens arthroscope. During VGIR, we did not perform any surgical treatment, such as lysis of fibrous adhesions or lateral release of the joint capsule. No agents, such as sodium hyaluronate or corticosteroids, were injected into the TMJ during VGIR. After VGIR, antibiotics and NSAIDs were prescribed for 3 days. Mandibular motion exercises consisting of mouth opening, protrusion, and lateral movements (2 or 3 sessions per day, with 5 repeats of each movement per session) were begun 3 days after VGIR, and a nocturnal bite splint therapy was continued in those patients needing it. These postoperative therapies were continued until the patients were symptom free. Moreover, patients were told to regularly perform relaxation of masticatory muscles when noticing clenching to avoid continuous excessive compression force to the TMJ, even in symptom-free patients.

All VGIR procedures in this study were performed by one of authors (Y.H.). The severity of arthroscopically observed synovitis were assessed intraoperatively by 3 oral surgeons (Y.H., K.N., and G.A.) without discussion, according to the criteria of synovial lining (SL) score (Table I).[7] All of their assessments were the same. Moreover, the SL scores were reassessed in the digital videotapes to confirm the intrainvestigator variation. The reassessed SL scores completely accorded with the data during VGIR.

The 45 patients were divided into successful (s-) and unsuccessful (u-) groups according to the clinical success criteria (Table II). Thirty-two of the 45 patients fulfilled the success criteria within median 8 months (range 2-23 months) after the first VGIR. Twenty-one

Table I. Severity of arthroscopically observed synovitis

Synovial lining score	
0	Within normal
1	Hypervascularity (hypermia) and/or synovial hyperplasia, or both, limited to the posterior attachment
2	More extensive hypervascularity (hypermia) and/or synovial hyperplasia

Table II. Clinical success criteria for visually guided temporomandibular joint (TMJ) irrigation

1	Postoperative painless range of mandibular motion (P-ROM; interincisor distance, mm) has increased.
2	Postoperative P-ROM is ≥38 mm.
3	Postoperative self-evaluated TMJ pain (visual analog scale, range 0-100) is <20 and <60% of preoperative level.

For success, all of these criteria must be fulfilled.

Table III. Clinical data of the s- and u-groups at the first and second visually guided temporomandibular joint irrigations (VGIRs)

			P-ROM (mm)		*VAS*	
	Age (yrs)	*Positive signs of OA*	*1st VGIR*	*2nd VGIR*	*1st VGIR*	*2nd VGIR*
s-group (n = 11)	41 (24-65)	9	32 (23-43)	44 (38-48)	50 (4-65)	0 (0-10)
u-group (n = 13)	32 (27-56)	10	30 (22-37)	32 (28-37)	50 (35-67)	48 (7-90)
P value	.643	.585	.385	<.001*	.235	<.001*

Values are median (range). Mann-Whitney *U* test or Fisher exact probability test.
OA, Osteoarthritis; *VAS*, visual analog scale; *ROM*, painless range of mandibular motion.
*$P < .001$.

patients in the s-group declined a second VGIR as a follow-up arthroscopy, and the remaining 11 patients underwent a second VGIR median 14 months (range 4-23 months) after the successful first VGIR. On the other hand, 13 of the 45 patients did not fulfill the success criteria. They all underwent a therapeutic second VGIR median 5 months (range 2-13 months) after the first VGIR. After the second therapeutic VGIR, 5 of the 13 patients fulfilled the success criteria, 5 underwent a successful open TMJ surgery, and the remaining 3 patients declined further TMJ surgery. In summary, 24 patients (s-group: n = 11; u-group: n = 13) were enrolled in the final analyses. The clinical data of these 24 patients at the first and second VGIR are shown in Table III.

The study was approved by the Research Ethical Committee of Tsurumi University, and informed consent for this study was obtained from each of the subject patients.

Preparation of aspirated SF sample

Synovial fluid samples were collected by one of the authors (Y.H.) immediately before each VGIR. After local anesthesia, 2 mL physiologic saline solution was injected into the SJC using a 21-guage needle and 5-mL disposable syringe. The mixture of SF and saline solution was aspirated and reinjected 10 times. The last aspirated SF sample with saline solution (A-SF) was then collected. The samples were centrifuged (440*g* for 10 minutes at 4°C) to remove cells and stored at −80°C until the assay was performed.

Measurement of the concentration of VEGF and total protein in the A-SF

The concentration of VEGF in the A-SF was measured by the first author. The concentration of VEGF in the samples were assayed using human VEGF-A Quantikine ELISA kit (R&D Systems, Minneapolis, MN) according to the manufacturer's instructions.The assay sensitivity of VEGF was 3.25 pg/mL. Concentrations of VEGF less than minimal sensitivity were calculated as 0.

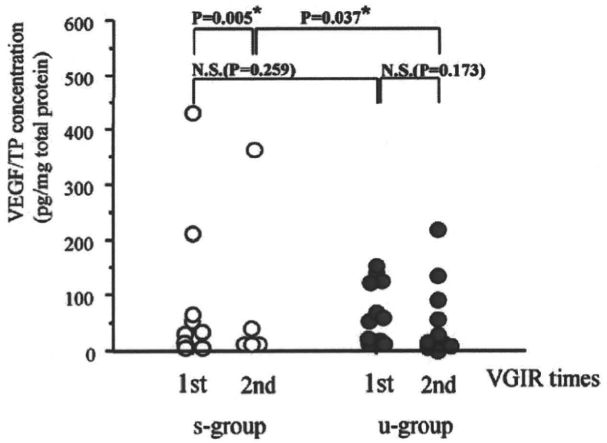

Fig. 1. Vascular endothelial growth factor (VEGF) level in the synovial fluid (SL) of s- and u-groups at the first and second visually guided temporomandibular joint irrigation (VGIR).
TP, Total protein.
*$P < .05$.

Protein was assayed using the Bradford Reagent (Sigma-Aldrich, St. Louis, MO) according to the manufacturer's technical instructions for the Bradford method. The level of VEGF was defined as its concentration per milligram of total protein in the A-SF. This procedure can replace the use of an internal standard, such as vitamin B12.[24]

Statistical analysis

At the first and second VGIR, the levels of VEGF in the A-SF and the SL score were compared between the s- and u-groups. In each group, the same parameters were also compared between the first and second VGIR. Moreover, the correlation of the VEGF level in the A-SF with the SL score was studied. Fisher exact probability test, Mann-Whitney *U* test, or Wilcoxon signed ranks test was used for statistical analyses. A probability value (*P* value) of <.05 was considered to be significant. The software used for the statistics was the Stat View J-5.0 (SAS Institute, Cary, NC).