The 12th Annual Meeting
The Korean Society for Psoriasis

PROGRAM

May 10, 2008

Diamond Hall (Harmony Lobby)
COEX InterContinental Hotel Seoul,
Seoul, Korea

Organized by
The Korean Society for Psoriasis
Co-sponsored by
The Korean Dermatological Association
The Korean Society for Investigative Dermatology

인사말씀

대한건선학회 제12차 학술대회를 맞이하여 그 동안 성원하고 지원하여 주신 회원 여러분들께 깊은 감사를 드립니다. 우리 건선학회는 건선의 임상 증례 발표 이외에도 건선의 발생기전과 치료에 관한 폭넓고 깊이 있는 최신 연구를 발표하고 토론하는 장이 되어 왔으며 국내의 건선 연구에 관한 발전을 주도해 오고 있습니다. 또한 건선 이외에도 다른 구진인설성 질환도 학술대회 주제에 포함시켜서 연구 영역을 확장하고 있습니다.

건선은 발생기전에 대한 면역학적, 분자생물학적 연구가 전 세계적으로 활발하게 진행되고 있으며 특히 치료에 있어서는 biologics를 비롯한 다양한 최신 치료법들이 시도되고 있는 질환입니다. 금년도 건선 학술대회에는 이러한 세계적인 추세에 발맞추어 일본 Fukuoka 의대 피부과 Juichiro Nakayama 교수의 “Pathogenesis of itching in psoriasis and it's management”와 캐나다 University of British Columbia 의대 피부과 Harvey Lui 교수의 “Treating psoriasis for a lifetime”이란 주제의 특강이 준비되어 있습니다.

이번 제 12차 학술대회를 준비하는데 수고하신 건선학회 임원 여러분과 동참하여주신 해외 및 국내 초청 연자, 좌장, 발표자 여러분께 다시 한번 깊은 감사를 드립니다. 앞으로도 대한건선학회에 대한 회원 여러분의 지속적인 관심과 후원 그리고 적극적인 참여를 부탁드립니다.

2008. 5. 10

대한건선학회 회장 **최 지 호**

INFORMATION

◆ **Advance Registration**

Not available

◆ **On-site Registration**

Physicians: ₩20,000 (including annual membership)
Residents: free

◆ **Official Language**

Oral presentations will be made in Korean language. However, all the presentation material should be prepared in English. Non-Korean participants are allowed to use English language in oral presentations.

◆ **Venue: COEX InterContinental Seoul**

159 Samsung-dong, Gangnam-gu
Seoul 135-975, South Korea
Tel: +82 2 3452 2500, Fax: +82 2 3430 8000
E-mail: coexseoul@interconti.com

◆ **Presentation**

Please be advised that slide projection has been completely replaced by beam projection and will be no longer available. Those who would like to use beam projection are advised to use Microsoft PowerPoint (version 2000 or compatible). Double slide projection or overhead projection is not available for the presentation.

- Suggested duration of presentation:

Free communications	6 minute presentation	+ 1 minute discussion
Case reports	5 minute presentation	+ 1 minute discussion
Educational lectures	13 minute presentation	+ 2 minute discussion
Special lectures	50 minute presentation	+ 5 minute discussion

▶ Preview Room: ANDANTE Room (Harmony Lobby)

All the presenters are required to submit their presentation material at least 1 hour prior to the scheduled presentation time. Recommended media for digital files are CD-ROM or USB type memory. Digital files in presenter's notebook computers will not be accepted.

◆ **Social Program**

Cocktail party (free admission 6:00-7:00) is planned for all the participants. Please enjoy tasty cuisine and beverage with your colleagues and friends.

PROGRAMS

MORNING SESSION

09:30-10:00 Registration

09:55-10:00 Opening Remark **CHOI Jee-Ho** (President of the KSP)

10:00-11:00 Free Communications I [FC-1~FC-7] / [CP-1]
Chairs: KIM Nack-In(*Kyunghee Univ.*), **KYE Young-Chul**(*Korea Univ.*)

FC-1 SCREENING OF TH17 DIFFERENTIATION REGULATOR FOR PSORIASIS THERAPY ····· **25**
SEO Sam-Hwa[1], LEE Sang-Keun[1], LEE Kyungmoon[2], LEE Young[2], LIM Chang-Deok[2], LEE Jeung-Hoon[2], LIM Jong-Soon[1]
[1]Institute of Traditional Medicine and Bioscience, Daejeon University, Daejeon, Korea,
[2]Department of Dermatology, School of Medicine, Chungnam National University, Daejeon, Korea

FC-2 THE NOTCH SIGNALING IS DOWNREGULATED IN PSORIASIS ····· **26**
HAN Seung Seog, LEE Woo Jin, KIM Myoung Shin, RHEE Do Young, CHOI Jee-Ho
Department of Dermatology, Asan Medical Center, University of Ulsan College of Medicine, Seoul, Korea

FC-3 EXPRESSION OF GPCR GENE IN PSORIASIS ····· **27**
MABUCHI Tomotaka[1], OKA Akira[2], AKASAKA Emiko[1], UMEZAWA Yoshinori[1], MATSUYAMA Takashi[1], INOKO Hidetoshi[2] and OZAWA Akira[1]
Departments of [1]Dermatology and [2]Molecular Life Science, Tokai University School of Medicine, Japan

FC-4 FUNTIONAL ROLES OF S100A8 AND S100A9 IN EPIDERMAL KERATINOCYTES ····· **28**
LEE Young, JANG Sunhyae, SOHN Kyung-Cheol, KIM Chang-Deok, LEE Jeung-Hoon, LEE Sang-Keun[1], LIM Jong-Soon[1]
Department of Dermatology, School of Medicine, Chungnam National University, Korea
[1]Institute of Traditional Medicine and Bioscience, Daejeon University, Daejeon, Korea

FC-5 FUNCTIONAL ANALYSIS OF PSORIASIS-ASSOCIATED GENE-1 ····· **29**
LEE Sang-Keun[1], SEO Sam-Hwa[1], HWANG Chul[2], LEE Young[2], KIM Chang-Deok[2], LEE Jeung-Hoon[2], LIM Jong-Soon[1]
[1]Institute of Traditional Medicine and Bioscience, Daejeon University, Daejeon, Korea,
[2]Department of Dermatology, School of Medicine, Chungnam National University, Daejeon, Korea

FC-6 SERUM LEVELS OF IFN-γ, TNF-α, IL-1β, IL-2, IL-6, IL-8, IL-10 and IL-12 IN PATIENTS WITH PSORIASIS AND CORRELATION WITH DISEASE SEVERITY ····· **30**
KIM Sang-Min[1], YANG Seong-Gyu[2], LIM Sang-Hee[1], SONG Young-Chan[1], CHOE Yong-Beom[1], AHN Kyu-Joong[1], YOUN Jai-Il[2]
[1]Department of Dermatology, School of Medicine, Konkuk University,
[2]Department of Dermatology, Seoul National University College of Medicine

FC-7 CORRELATION OF SERUM URIC ACID WITH SEVERITY OF PSORIASIS ····· **31**

CHOI Jung-Won, WOO Seung-Man, YOON Hyun-Sun, YOUN Jai-Il

Department of Dermatology, Seoul National University College of Medicine

CP-1 A CASE OF PSORIASIS VULGARIS ASSOCIATED WITH GOUT ····· **32**

CHOI Jung-Won, WOO Seung-Man, YOON Hyun-Sun, YOUN Jai-Il

Department of Dermatology, Seoul National University College of Medicine

11:00-12:00 Special Lecture I [SL]

Chairs: YOUN Jae-Il(*Seoul Univ.*), **ASANUMA Hiroyuki**(*Kojinkai Medical Group, Japan*)

SL-1 PATHOGENESIS OF ITCHING IN PSORIASIS AND IT'S MANAGEMENT ····· **12**

Professor **NAKAYAMA Juichiro**

Department of Dermatology, Fukuoka University School of Medicine, Fukuoka, Japan

12:00-1:30 *Coffee Break & Lunch*

Council Meeting (평의원 회의) VENUS Room (30th floor)

AFTERNOON SESSIONS

1:30-2:30 Special Lecture II [SL] **Chair: KIM Kwang-Joong**(*Hallym Univ.*)

SL-2 TREATING PSORIASIS FOR A LIFETIME ····· **16**

Professor **LUI Harvey**

Department of Dermatology and Skin Science, University of British Columbia, Vancouver, Canada

2:30-3:30 Free Communications II [FC-8~FC13] / [CP-2~CP-3]

Chairs: KIM Tae-Yoon(*Catholic Univ.*), **KIM Sang Tae**(*Kosin Univ.*)

FC-8 METHOD OF ASSESSING INVOLVED FACIAL PSORIASIS AREAS: RULE OF FOURS ····· **33**

YOON Hyun-Sun, CHOI Jung-Won, YOUN Jai-Il

Department of Dermatology, Seoul National University College of Medicine

FC-9 COMORBIDITIES IN KOREAN PSORIATIC PATIENTS ····· **34**

JEONG Taek-Jo, SHIN Min-Kyung KIM Nack-In

Department of Dermatology, College of Medicine, Kyung Hee University

CP-2 TERBINAFINE-INDUCED PSORIATIC AGGRAVATION ····· **35**

CHO Hyun-Ho, SEO Sang-Hee, KO Hyun-Chang, KIM Moon-Bum, KWON Kyung-Sool

Department of Dermatology, School of Medicine, Pusan National University, Busan, Korea

FC-10 OPEN LABEL, SINGLE ARM, MULTI-CENTER, PHASE 3 CLINICAL TRIAL OF ALEFACEPT 15MG WEEKLY IM FOR 12 WEEKS FOLLOWED BY 12 WEEK REST PERIOD TO INVESTIGATE EFFICACY AND SAFETY OF ALEFACEPT IN CHRONIC PLAQUE TYPE PSORIASIS ····· **36**

KIM Kwang-Joong[1], KYE Young-Chul[2], KIM Nack-In[3], KIM Tae-Yoon[4], WON Young Ho[5], LEW Wook[6], YOUN Jai-Il[7], LEE Weon Ju[8], LEE Joo-Heung[9], LEE Jeung-Hoon[10], CHOI Jee-Ho[11]

[1]Department of Dermatology, College of Medicine, Hallym University
[2]Department of Dermatology, College of Medicine, Korea University
[3]Department of Dermatology, College of Medicine, Kyung Hee University
[4]Department of Dermatology, College of Medicine, The Catholic University of Korea
[5]Department of Dermatology, College of Medicine, Chunnam University,
[6]Department of Dermatology, Yonsei University College of Medicine
[7]Department of Dermatology, College of Medicine, Seoul National University
[8]Department of Dermatology, College of Medicine, Kyungbuk University
[9]Department of Dermatology, Samsung Medical Center, Sungkyunkwan University School of Medicine
[10]Department of Dermatology, School of Medicine, Chungnam National University
[11]Department of Dermatology, Asan Medical Center, University of Ulsan College of Medicine

CP-3 A CASE OF SEVERE PSORIASIS IN IDENTICAL TWIN TREATED WITH ETANERCEPT AND LOW DOSE CYCLOSPORINE ····· **38**

LEE Eun-Ju, YANG Yun-Seok, JEONG Ki-Heon, KIM Nack-In

Department of Dermatology, Kyung Hee University

FC-11 QUESTIONNAIRE INVESTIGATION OF PREFERENCES AND SATISFACTION ABOUT TOPICAL CALCIPOTRIOL OINTMENT ····· **39**

OH Byung-Ho[1], CHOE Yong-Beom[1], KIM Tae-Yoon[2], LEE Joo-Heung[3], CHOI Jee-Ho[4], KIM Nack-In[5], KIM Kwang-Joong[6], YOUN Jai-Il[7]

[1]Department of Dermatology, School of Medicine, Konkuk University
[2]Department of Dermatology, College of Medicine, The Catholic University of Korea
[3]Department of Dermatology, Samsung Medical Center, Sungkyunkwan University School of Medicine
[4]Department of Dermatology, Asan Medical Center, University of Ulsan College of Medicine
[5]Department of Dermatology, College of Medicine, Kyung Hee University
[6]Department of Dermatology, College of Medicine, Hallym University
[7]Department of Dermatology, College of Medicine, Seoul National University

FC-12 QUESTIONNAIRE INVESTIGATION OF PREFERENCES AND SATISFACTION ABOUT TOPICAL MODALITIES FOR THE TREATMENT OF SCALP PSORIASIS ····· **40**

OH Byung-Ho[1], CHOE Yong-Beom[1], KIM Tae-Yoon[2], LEE Joo-Heung[3], CHOI Jee-Ho[4], KIM Nack-In[5], KIM Kwang-Joong[6], YOUN Jai-Il[7]

[1]Department of Dermatology, School of Medicine, Konkuk University
[2]Department of Dermatology, College of Medicine, The Catholic University of Korea
[3]Department of Dermatology, Samsung Medical Center, Sungkyunkwan University School of Medicine
[4]Department of Dermatology, Asan Medical Center, University of Ulsan College of Medicine
[5]Department of Dermatology, College of Medicine, Kyung Hee University
[6]Department of Dermatology, College of Medicine, Hallym University
[7]Department of Dermatology, College of Medicine, Seoul National University

FC-13 CLINICAL SURVEY OF CLOBEX SHAMPOO FOR TREATMENT OF SCALP PSORIASIS ····· **41**

SONG Hae Jun[1], CHOE Yong-Beom[2], PARK Chul Jong[3], LEE Ju Hee[4], KIM Tae-Yoon[3], CHOI Jee-Ho[5], KIM Kwang-Joong[6], YOUN Jai-Il[7]

[1]Department of Dermatology, College of Medicine, Korea University
[2]Department of Dermatology, School of Medicine, Konkuk University
[3]Department of Dermatology, College of Medicine, The Catholic University of Korea
[4]Department of Dermatology, Yonsei University College of Medicine
[5]Department of Dermatology, Asan Medical Center, University of Ulsan College of Medicine
[6]Department of Dermatology, College of Medicine, Hallym University
[7]Department of Dermatology, College of Medicine, Seoul National University

3:30-4:00 *Coffee Break*

4:00-5:00 Educational Lectures [EL] **Chiar: CHOI Jee-Ho**(*Ulsan Univ.*)

MANAGEMENT OF SPECIFIC VARIANTS OF PSORIASIS

EL-1 LOCALIZED PUSTULAR PSORIASIS ····· **19**

PARK Chul Jong
Department of Dermatology, College of Medicine, The Catholic University of Korea

EL-2 ERYTHRODERMIC PSORIASIS ····· **20**

SONG Hae Jun
Department of Dermatology, College of Medicine, Korea University

EL-3 CHILDHOOD PSORIASIS ····· **21**

ROH Joo-Young
Department of Dermatology, Graduate School of Medicine, Gachon University of Medicine and Science

EL-4 PSORIATIC ARTHRITIS ····· **22**

LEE Joo-Heung
Department of Dermatology, Sungkyunkwan University School of Medicine, Samsung Medical Center

6:00 Closing Remark

6:00-7:00 **Cocktail Party** ALLEGRO Room (Harmony Lobby)

SPECIAL LECTURES

CURRICULUM VITAE

Juichiro NAKAYAMA, M.D.

Professor and Chairman
Department of Dermatology
School of Medicine
Fukuoka University
7-45-1, Nanakuma, Jyonan-ku, Fukuoka, 814-0180, Japan
TEL +81-92-801-1011
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E-Mail j-nkym@fukuoka-u.ac.jp

1975	Guraduate from kyushu univ. faculty of medicine
1975-1977	Training of dermatology,at kyushu univ. hospital etc
1977-1981	Post-graduate school of medicine (dermatology)
1981-1983	Visiting fellow, national cancer institute, USA
1983-1991	Assistant professor, department of dermatology, kyushu univ. faculty of medicine
1991-1998	Associate professor, department of dermatology, kyushu univ. faculty of medicine
1998-	Professor & chairman, department of dermatology, fukuoka univ. school of medicine

SL-1

PATHOGENESIS OF ITCHING IN PSORIASIS AND IT'S MANAGEMENT

NAKAYAMA Juichiro, Professor and Chairman

Department of Dermatology, Fukuoka University School of Medicine, Fukuoka, Japan

It has been reported that population of patients with psoriasis is increasing in Japan. The reason for this incerase is not known, but it has also been noticed that number of patients with psoriasis complaining strong itching is increasing. The pathophysiology of psoriasis has been investigated worldwide, and it is now understood that some subsets of dendritic cells and T1 type of lymphocytes in the dermis as well as in the epidermis are important in the formation of psoriasis lesions. However, the immunological mechanisms on the evoking of itching in psoriasis has not been totally understood. We investigated clinical and histopathological features of pruritic lesions of patiens who received skin biopsy of the eruption during 2005-2007. We found that severity of psoriasis lesions and degree of pruritis almost correlated. Typical pruritic eruptions were either large erythematous infiltrated plaques, thick scaly large plaques, pustular annular erythema, or erythroderma. The histopathological features of psoriasis lesions with severe itching were conspicuous infiltration of eosinophils and mast cells both in the dermis and epidermis, in addition to irregular elongation of rete ridges, spongiosis of the epidermis, and edema of the papillary dermis with dense lymphocytic infiltration. These findings suggest that immunological reactions in the pruritic psoriatic lesions might be the complex of T1 and T2 type of reactions. The most effective therapy for the itching was ciclosporin A. Topical corticosteroid was also effective for the relief of pruritus. Recent experience of treatment with small doses of corticosteroid was also satisfactory. It is concluded that initial therapeutic modalities for psoriasis with moderate to severe itcching should be carefully selected.

CURRICULUM VITAE

Harvey LUI, M.D., FRCPC

Professor & Head
Department of Dermatology and Skin Science
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EXPERTISE

Keywords: PHOTOMEDICINE, BIOMEDICAL OPTICS, SPECTROSCOPY, PHOTODYNAMIC THERAPY, LASERS, PSORIASIS, INFORMATICS, MEDICAL EDUCATION, HAIR DISORDERS

POST-SECONDARY EDUCATION

Wellman Laboratories, Massachusetts General Hospital, Harvard Medical School, Boston, MA	Research Fellow Supervisor: Dr. R. Rox Anderson	Photomedicine and Lasers	1991-92
University of British Columbia	Resident III-V	Dermatology	1988-91
University of British Columbia	Resident II	Internal Medicine	1987-88
Royal Jubilee Hospital, Victoria, BC	Interneship	Medicine	1986-87
University of British Columbia	M.D.	Medicine	1982-86
University of British Columbia	B.Sc.	Biochemistry	1979-83

WORK EXPERIENCE & CREDENTIALS

Department Head	Dermatology and Skin Science	University of British Columbia	2006-
Professor	Dermatology and Skin Science	University of British Columbia	2002-
Medical Director	Skin Care Centre	Vancouver General Hospital	1995-
Division Head	Dermatology	University of British Columbia	2000-2006
Associate Professor	Medicine (Dermatology)	University of British Columbia	1997-2002
Assistant Professor	Medicine (Dermatology)	University of British Columbia	1992-1997

Medical Council of Canada, Certificant 1987
National Board of Medical Examiners, Certificant 1987
College of Physicians and Surgeons of British Columbia, Licentiate 1988
Royal College of Physicians and Surgeons of Canada, Fellow (Dermatology) 1991
American Board of Dermatology, Diplomate 1991
American Society for Laser Medicine & Surgery, Fellow 1992

DISTINCTIONS

Killam University Teaching Prize, Faculty of Medicine, University of British Columbia, 2001.
Donald M. Whitelaw Award for Outstanding Grand Rounds for 1996, UBC Department of Medicine.
Japanese and Canadian Societies for Investigative Dermatology, Joint Meeting Plenary Award, 1996
R. Samuel McLaughlin Scholarship in Medicine, McLaughlin Foundation of Canada, 1991-92.
Jambor Knowledge Fund Award, British Columbia Cancer Agency, 1991-92.

SERVICE

President, Canadian Dermatology Association, 2005-06
Web Editor, Archives of Dermatology, 1996-2004
Member, American Dermatological Association, 2002-
Chair, Medical Advisory Committee, Canadian Dermatology Foundation, 2003-

PUBLICATIONS & PATENTS

6 Patents granted, 4 Patents pending

Publications	Refereed	Books/ Monographs	Chapters	Abstracts	Invited presentations	TOTALS
Already published	69	2	9	102	14	196
Accepted or in press	1					1
						197

MOST SIGNIFICANT PUBLICATIONS (last 5 years):

1. Sharfaei S, Viau G, LUI H, Bouffard D, Bissonnette R. Systemic photodynamic therapy with aminolaevulinic acid delays the appearance of ultraviolet-induced skin tumours in mice. Br J Dermatol 2001;144:1207-1214.
2. Bissonnette R, Zeng H, McLean D, Korbelik M, LUI H. Oral aminolevulinic acid induces protoporphyrin IX fluorescence in psoriatic plaques and peripheral blood cells. Photochemistry and Photobiology 2001;74:339-345.
3. Huang Z, Zeng H, Hamzavi I, McLean DI, LUI H. A rapid near-infrared Raman spectroscopy system for real-time in vivo skin measurements. Optics Letters 2001;26.
4. Wiseman MC, Shapiro J, MacDonald N, LUI H. A predictive model for immunotherapy of alopecia areata with diphencyprone. Arch Dermatol 2001; 137:1063-1068.
5. Shapiro J, LUI H. Vaniqa: Eflornithine 13.9% cream. Skin Ther Lett 2001;6:1-5.
6. Papp K, Bissonnette R, Krueger JG, Carey W, Gratton D, Gulliver WP, LUI H et al. The treatment of moderate to severe psoriasis with a new anti-CD11a monoclonal antibody. J Am Acad Dermatol 2001;45:665-74.
7. Hamzavi I, LUI H. Removing skin-colored cosmetic tattoos with carbon dioxide resurfacing lasers. J Am Acad Dermatol 2002;46:764-5.
8. Zeng H, Korbelik M, McLean DI, MacAulay C, LUI H. Monitoring photoproduct formation and photobleaching by fluorescence spectroscopy has the potential to improve PDT dosimetry. Photochem Photobiol 2002; 75:398-405.
9. Bissonnette R, Tremblay J-F, Juzenas P, Boushira M, LUI H. Systemic photodynamic therapy with aminolevulinic acid induces apoptosis in lesional T lymphocytes of psoriatic plaques. J Invest Dermatol 2002; 119-77-83.
10. LUI H. Phototherapy for psoriasis with practical pearls. J Cutan Med Surg 2002; 17-21.
11. Hong C, McLean D, Shapiro J, LUI H. Using the internet to assess and teach medical students in dermatology. J Cutan Med Surg 2002; 6: 315-319.
12. Tang L, Madani S, LUI H, Shapiro J. Regeneration of a new hair follicle from the upper half of human hair follicle in nude mouse. J Invest Dermatol 2002; 119:983-984.
13. Lau DP, Huang Z, LUI H, Man CS, Berean K, Morrison MD, Zeng H. Raman spectroscopy for optical diagnosis in normal and cancerous tissue of the nasopharynx - preliminary findings. Lasers Med Surg 2003; 32:210-214.
14. Bernardo O, Tang L, LUI H, Shapiro J. Topical nitrogen mustard in the treatment of alopecia areata: A bilateral comparison study. J Am Acad Dermatol 2003; 291-294.
15. Shum DT, LUI H, Martinka M, Bernardo O, Shapiro J. Computerized morphometry and three-dimensional image reconstruction in the evaluation of scalp biopsy from patients with non-cicatricial alopecias. Brit J Dermatol 2003; 148:1-7.
16. Tang L, Bernardo O, Bolduc C, LUI H. Shapiro J. The expression of insulin-like growth factor I in follicular dermal papillae correlates with therapeutic efficacy of finasteride in adrogenetic alopecia. J Am Acad Dermatol 2003; 229-233.

17. Tang L, Cao L, Bernardo O, Chen Y, Sundberg, JP, LUI H, Chung S, Shapiro J. Topical mechlorethamine restores autoimmune-arrested follicular activity in mice with alopecia areata-like disease by targeting infiltrated lymphocytes. J Invest Dermatol 2003; 120: 400-406.
18. Huang Z, McWilliams A, Lam S, McLean DI, LUI H, Zeng H. Near-infrared Raman spectroscopy for optical diagnosis of lung cancer. Int J Cancer; 2003;107:1047-52.
19. Tang L, Cao K, Pelech S, LUI H, Shapiro J. Cytokines and signal transduction pathways mediated by anthralin in alopecia areata-affected Dundee experimental balding rats. J Invest Dermatol Symp Proc 2003;8:87-90.
20. Tang L, LUI H, Sundberg J, Shapiro J. Old wine in new bottles: Reviving old therapies for alopecia areata using rodent models. J Invest Dermatol Proceedings. 2003; 8:212-6.
21. LUI H, Hobbs L, Tope W, Lee PK, Elmets C, Provost N, Chan A, Neyndorff H, Su XY, Jain H, Hamzavi I, McLean DI, Bissonnette R. Photodynamic therapy of multiple nonmelanoma skin cancers with verteporfin and LED light - two-year results evaluating tumor response and cosmetic outcomes. Arch Dermatol 2003; 140:26-32.
22. Tang, LUI H, Sundberg JP, Bissonnette R, McLean DI, Shapiro J. Restoration of hair growth with topical diphencyprone in murine and rate models of alopecia areata. J Am Acad Dermatol 2003; 49:1013-1019.
23. Huang Z, McWilliams A, Lam S, English J, McLean DI, LUI H, Zeng H. Effects of formalin fixation on the near-infrared Raman spectroscopy of human bronchial tissues. Int J Oncol 2003; 23:649-655.
24. LUI H, Shapiro J. Once daily application of calcipotriol and betamethasone dipropionate for the treatment of psoriasis. Skin Therapy Letter 2003; 8(Suppl 1):1-2.
25. Tang L, Cao L, Sundberg JP, LUI H, Shapiro J. Restoration of hair growth in mice with an alopecia areata-like disease using topical anthralin. Exp Dermatol 2004; 13:5-10.
26. Huang H, Zheng W, Xie S, Chen R, Zeng H, McLean DI, LUI H. Laser-induced autofluorescence microscopy of normal and tumor human colonic tissue. Int J Oncol 2004; 24:59-64.
27. Hamzavi I, Jain H, McLean D, Shapiro J, Zeng H, LUI, H. Parametric modeling of narrowband UV-B Phototherapy for vitiligo using a novel quantitative tool. Arch Dermatol 2004; 140:677-683.
28. Kragballe K, Noerrelund KI, LUI H, Osrtone JP, Wozel G, Uurasma T, Fleming C, Lopez Estebaranz JI, Hanssen LI, Persson L-M. Efficacy of once daily treatment regimens with calcipotriol/betamethasone dipropionate ointment and calcipotriol ointment in psoriasis vulgaris. Br J Dermatol 2004;150:1167-1173
29. LUI H, Langley R et al. Incorporating biologics into the treatment of psoriasis. J Cutan Med Surg 2004;8-13.
30. Gupta AK, Langley R, Poulin Y, LUI H et al. Pathogenesis of psoriasis and current challenges. J Cutan Med Surg 2004; 3-7.
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SL-2

TREATING PSORIASIS FOR A LIFETIME

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The latest approaches to psoriasis are being influenced by two new insights. First, surveys of patients with psoriasis indicate that in general they would prefer to be offered more aggressive options for treatment than what dermatologists are usually prepared to recommend. This is consistent with the evolving trend in medicine towards patient-centered management whereby patients are assuming a more active role in exploring their full range of options. The other major finding is that multiple epidemiologic studies have now clearly demonstrated that there are important systemic implications for patients with psoriasis well beyond the known risk of developing inflammatory arthritis. Specifically severe psoriasis is associated with a decreased life expectancy and a higher risk of myocardial infarction, diabetes mellitus, metabolic syndrome, obesity, and smoking. There is some preliminary evidence that treating psoriasis may positively influence those co-morbidities, and therefore dermatologists need to adopt a more holistic approach to their patients not only in terms of the systemic implications, but also with consideration of the long term consequences of the disease and the therapies used. For example in light of cardiovascular co-morbidities, it may be important that the hyperlipidemia that can be associated with drugs such as acitretin and cyclosporine be worked up and treated more rigorously. Optimal long term management of patients with psoriasis almost always entails combination therapy over a lifetime. In clinical studies of psoriasis, it is therefore important not only to demonstrate the efficacy of a specific treatment, but also to evaluate its combined use with other anti-psoriatic agents as well as its performance and safety over extended periods of time. While there are many studies evaluating phototherapy and systemic agents over the long term, there is a relative paucity of data on extended use of topical agents, which actually represents the current cornerstone of psoriasis management. The specific topical combination of calcipotriol and betamethasone dipropionate has been prospectively evaluated over a one year term during which disease control and safety were maintained throughout. Although the “cure” for psoriasis remains evasive, dermatologists now have better evidence-based approaches to psoriasis management backed up by higher patient expectations and a new recognition that the disease is truly more than skin deep.

EDUCATIONAL LECTURES

EL-1

LOCALIZED PUSTULAR PSORIASIS

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Localized pustular psoriasis has 2 major varieties, which are pustulosis palmaris et plantaris (PPP) and acrodermatitis continua. PPP is a recurrent, chronic disease with multiple sterile pustules on the palms and soles. Sterile pustules usually develop on the thenar and hypothenar area of the palms and central areas of palms and soles. But they can occur on the dorsum of hands, feet and wrists and even nails. The incidence of the disease has not been studied thoroughly, but is known to be rare and 3 times more in women, compared with men. But there was a report that there was no sexual difference in incidence. It occurs most commonly between third and seventh decades and 10% of cases develop before 20 years. Histopathologically, it shows intradermal pustule composed of many neutrophils. There has been controversy on the relation between PPP and psoriasis. Some insisted that PPP is a subtype of localized pustular psoriasis, based on the facts that the patient with PPP has psoriatic skin lesions on other parts of the body in 19-48% cases and has history of psoriasis in 7.7-24% cases and shows intraepidermal pustules with neutrophils like psoriasis, histopathologically. However, it differs from localized pustular psoriasis in that it occurs more commonly in the late period of lifetime and women, and shows no seasonal variation and can accompany with osteoarthritis and lastly, there is no increase in the expression of HLA subtypes, which are known to be closely related to psoriasis.

It is difficult to differentiate PPP from pustular bacterid, which is known as associated with bacterial infections, in both clinically and histopathologically. Hence, there is a tendency that pustular bacterid is included as a category of PPP recently. It must be differentiated with acrodermatitis continua, which affects the acral lesions, such as fingertips or toe tips first and progress to the hands and feet. It also must be differentiated from infantile acropustulosis, which presents as tiny, pruritic pustules on the hands and feet in childhood. PPP is difficult to treat and runs a chronic course. It can be managed with potent topical steroid ointment, systemic steroid, PUVA, NB-UVB, methotrexate, renoid, cyclosporine, colchicine, itraconazole, tetracycline and vitamin D3 ointment. For the effective treatment, the combination therapy of these agents is recommended. During these treatments, the development of new pustules is suppressed.

However, on discontinuation, recurrences are frequently observed.

EL-2

ERYTHRODERMIC PSORIASIS

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Erythrodermic psoriasis is a severe and disabling variant of psoriasis with a considerable prevalence. It accounted for about 50% of all erythroderma cases. Erythrodermic psoriasis most commonly evolves from a pre-existing chronic plaque-type psoriasis and may lead to serious morbidity and mortality if untreated. In the second from, erythroderma is resulted from non-tolerated external treatment(such as UVB, anthralin). Infections, drugs, or withdrawal of corticosteroids can be precipitating factors. Clinically, it is characterized by diffuse erythema because of generalized vasodilatation and fine scaling involving almost all the body surface. Erythrodermic flare is commonly associated with chills, shivering and even fever in an attempt to compensate excessive heat loss. Patients are often at risk of hyperthermia in warm climate due to occlusion of sweat ducts. Lower extremity edema is secondary to vasodilatation and protein loss. Patients may suffer from high-output cardiac failure and impaired hepatic and renal function. Weight loss, pruritus may be accompanied. Erythrodermic psoriasis is often difficult to manage and currently available therapies are frequently unsatisfactory. It is also not yet well standardized. Inconvenience and side effects of traditional therapies limit favorable outcomes of treatment. Traditional systemic therapies for erythrodermic psoriasis include methotrexate, cyclosporine, oral retinoids and systemic steroids. Restoration of fluid loss and prophylactic antibiotic therapy should be considered as important part of the management. Current treatment options for erythrodermic psoriasis are limited due to long-term organ-specific toxicity and the risk of opportunistic infections from immunosuppression. Therefore more safe and effective therapeutic alternatives are needed for erythrodermic psoriasis. Recently, a new class of agents, targeted biologics, has introduced. Etanercept, alefacept and especially infliximab were successfully used for recalcitrant and life-threatening patients, who were unresponsive to conventional therapies. Biologics therapy may provide a safe, fast and convenient alternative to treat erythrodermic psoriasis.

EL-3

CHILDHOOD PSORIASIS

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About 30-35% of psoriasis patients had onset of disease before age of 15 years. Compared to adult-onset psoriasis patients pediatric-onset patients had higher percentage of family members affected. Twin studies yielded a concordance of monozygotic twin in up to 75%. It has been identified that strong association exists in early-onset psoriasis for the HLA-Cw6 allele. Relative frequencies of types or pattern of psoriasis is differ from adult type. Most frequent clinical type is plaque type and next rank orders are psoriatic diaper rash with dissemination, sclap psoriasis, anogenital type, guttate psoriasis and acropustulosis type. Precipitating factors are more important in pediatric-onset patients. Trauma, infection such as streptococcal pharyngitis or perianal streptococcal dermatitis typically provokes guttate psoriasis. Antimalarials and withdrawal of oral or topical corticosteroids and psychological and psychosomatic factors also play an important role in inductions of childhood psoriasis. Psoriasis have an great impact on quality of life in affected children. Management of psoriasis in children differs from adult in several aspects including educating family, supportive care for emotional aspects and eliminating triggering factors. Although various therapies are available, more evidence is needed about the efficacy and long-term safety of antipsoriatic agents in children. In children, psoriasis usually follows benign course and topical treatment is sufficient to control disease. Systemic therapy is reserved for children with severe and otherwise treatment-refractory psoriasis. Topical steroid, 1% anthralin, calcipotriol can be used. Narrow band UVB phototherapy may be combined and it can be considered as first-line treatment for children with moderate to severe psoriasis before opting for systemic therapies such as retinoids, methotrexate, cyclosporine and biologics. Although spontaneous remission is more frequent in children, clearance is often followed by recurrence.

EL-4

PSORIATIC ARTHRITIS

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Psoriatic arthritis (PsA) is a chronic disorder affecting 0.05-0.2% of the whole population. True incidence can be as high as 1% of the general population based on the 30% prevalence of PsA in psoriatics. Approximately 70% of the cases occur following cutaneous psoriasis while the others can develop simultaneously or prior to the onset of psoriasis. The fact that majority of PsA develops after cutaneous morbidity means that dermatologists are supposed to be the primary caretakers not only in the detection of this disease but also in the management of this harmful comorbidity of psoriasis.

Despite its significant impact on patients' quality of life as well as disability, its nosologic status has not been established until early 1960s when ACR acknowledged its identity as a distinct arthritis separated from RA. Because of the absence of pathognomonic findings in laboratory tests or imaging studies, various diagnostic criteria have been suggested, which has increased confusion in identifying this potentially disabling disease before irreversible changes can occur. Recently proposed CASPAR criteria is a great example of international collaboration to clarify confusions in identifying PsA. Clinical features of PsA include but not limited to oligo/polyarthritis involving mostly DIP joints, dactylitis resulting from enthesitis, back pain arising from spondylitis. Most of the cases, RA factor is negative but seronegativity is not always a prerequisite in the diagnosis of PsA. MRI, ultrasound as well as plain X-ray are useful in defining changes in joints and entheses.

Management of mild and early PsA can be done with NSAIDs, physical therapy and intra-articular corticosteroid injections. For more severe patients, Disease-Modifying Anti-Rheumatic Drugs (DMARDs) can be used. DMARDs can be categorized into traditional DMADRDs and biological DMARDs. Methotrexate, sulfasalazine, cyclosporine A belong to the former category while etanercept, infliximab and adalimumab are representative examples of biological DMARDs. Although traditional DMARDs are less expensive and more familiar to us, most of them lack rigorous scientific validation and many of them failed to show comparable efficacies with biological agents. Biological agents, despite their prohibitive prices, offer promising results that have been validated through well-designed RCTs and meta- analyses. Etanercept and adalimumab have been approved by KFDA for PsA and reimbursement through insurance authority is available under very limited conditions.

FREE COMMUNICATIONS

FC-1

SCREENING OF TH17 DIFFERENTIATION REGULATOR FOR PSORIASIS THERAPY

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Several inflammatory skin diseases are mediated by abnormal activity of infiltrated T cells in skin. Psoriasis is known to be caused by the imbalance of cytokines secreted from activated T cells in skin, which is mainly responsible for the hyperplasia, hyperproliferation and abnormal differentiation of epidermal keratinocytes as well as T cell homing into the skin. IL-17 secreting Th subset, termed Th17, has been recently identified as a distinct Th lineage and plays a pivotal role in the various inflammatory diseases. Th17 differentiation is initiated by stimulation of activated APC cells. As IL-17 knockout decreased the susceptibility of many inflammatory diseases in mice, Th17 cell is regarded as a pathogenic effector T cell and therapeutic target. Also, IL-22, IL-23 and Th17 cytokine antagonism represents a promising therapeutic approach for the treatment of Th17-mediated inflammatory skin disorders including psoriasis. To select the plant extracts for psoriasis therapy, we have screened more than 2,000 extracts and have chosen several extracts which can effectively inhibit the production of IL-17 and IL-23. We are now trying to purify a single compound with almost same activity from those extracts.

FC-2

THE NOTCH SIGNALING IS DOWNREGULATED IN PSORIASIS

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The Notch system consists of four transmembrane receptors (Notch 1-4), five transmembrane ligands (Jagged 1 and Jagged 2, Delta-like-1, -3 and -4) and three proteins modulating the lignad-receptor induced signal, termed Lunatic Fringe, Radical Fringe and Manic Fringe. Notch signaling controls a number of cellular processes including cell fate decision, proliferation, differentiation and survival. Notch signaling is a direct determinant of keratinocyte growth arrest and entry into differentiation. Notch signaling is associated with skin malignancies such as basal cell carcinoma, squamous cell carcinoma and malignant melanoma. We investigated the expression of Notch 1, Notch 2, Jagged 1, Jagged 2 and Delta-like 1, by immunohistochemistry, immunofluorescencce and RT-PCR in psoriasis, compared with normal adult skin. We showed that the level of transcription of these genes and the expression of these proteins were downregulated in psoriasis, where keratinocytes were hyperproliferative. Elucidating of the precise Notch signaling pathway will be important to the potential therapeutic application of Notch molecules against psoriasis.

FC-3

EXPRESSION OF GPCR GENE IN PSORIASIS

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We have systematically performed genome-wide association analysis to define all psoriasis susceptibility loci. The result of the genome-wide association studies of psoriasis using 26,065 microsatellite markers was reported at the 10th annual meeting of the KSP. As the result, putative psoriasis candidate genes were estimated to be less than 7 genes including G protein-coupled receptor gene. We examined the expression of GPCR gene in psoriasis. Summary of the results will be reported in this meeting.

FC-4

FUNCTIONAL ROLES OF S100A8 AND S100A9 IN EPIDERMAL KERATINOCYTES

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S100A8 is a member of the S100 calcium-binding protein family, which generally exists as a heterodimer with the S100A9 protein in neutrophils, monocytes, and activated macrophages. S100A8 expression is also associated with epidermal keratinocytes in a variety of inflammatory dermatoses.

Through in situ hybridization and immunohistochemical staining, we demonstrated that S100A8 was highly expressed, especially in psoriatic skin. RT-PCR analysis also confirmed the increased expression of S100A8 and S100A9 in psoriatic compared to non-psoriatic skin. To delineate the intracellular role of S100A8 and S100A9, we determined the effect of ectopic over-expression of S100A8 and S100A9 proteins in simian virus keratinocytes (SVKCs). We confirmed that these proteins were secreted dose-dependently by Ad-S100A8 and Ad-S100A9, and that S100A8 and S100A9 increased the mRNA level of proinflammatory cytokines, such as interleukin (IL)-8 and tumor necrosis factor (TNF)-α. IL-8 and TNF-α were especially abundant in conditioned media of SVKCs transduced with Ad-S100A8 and Ad-S100A9, which indicates that S100A8 and S100A9 may play a key role in inflammatory disorders. In addition, S100A8 and S100A9 enhanced the migration of macrophages, which demonstrates their potential role as chemokines during the inflammatory process in diseased epidermis.

FC-5

FUNCTIONAL ANALYSIS OF PSORIASIS-ASSOCIATED GENE-1

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Psoriasis is a common, chronic autoimmune disease of the skin characterized by red, scaly, raised plaques at different body sites. Although the exact cause remains unknown, it is obvious that genetic factors are involved in the pathogenesis of psoriasis from the genetic linkage analysis including familial psoriasis mapping and the concordance rate in monozygotic twins. To find out genetic factors in psoriasis, we previously analyzed the difference of gene expression profiles between uninvolved and involved skin using microarray. After analyzing microarray data, we have chosen the PAG-1 (Psoriasis Associated Gene-1) under the assumption that it could regulate the keratinocyte proliferation. Through immunohistochemical staining, we demonstrated that PAG-1 was highly expressed in psoriatic lesions compared to normal epidermis. When Ad-PAG vector was transduced into the HaCaT cell, proliferation rate was significantly increased. We have also tried to generate transgenic mice in which PAG-1 cDNA was expressed under control of the human keratin 5 promoter. These mice showed no gross abnormalities and looked healthy until about 5 months after birth, when they spontaneously began to develop inflammatory skin lesions on the back. These lesions maintained for about one month and gradually disappeared after then, and there have been no recurrences at all until now at 12 months of age.

FC-6

SERUM LEVELS OF IFN-γ, TNF-α, IL-1β, IL-2, IL-6, IL-8, IL-10 AND IL-12 IN PATIENTS WITH PSORIASIS AND CORRELATION WITH DISEASE SEVERITY

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Psoriasis is a common chronic inflammatory disorder which is characterized by hyperproliferation with extremely increased rate of epidermal turnover, and an activated mononuclear infiltrates in the underlying dermis. At present, researches into psoriasis are dominated by the hypothesis which states that the disease is an immunological disorder described by abnormal keratinocyte proliferation mediated through T lymphocytes. Autoimmune disorders and inflammatory reactions are currently segregated into cell-mediated Thl or Th2 category. The current state of knowledge suggests that overexpression of proinflammatory Th1 cytokines and relative underexpression of Th2 cytokines are of pathological significance in psoriasis. Th1 cytokines are found in high levels both lesional skin and in the peripheral blood in psoriatic patients. Circulating cytokines therefore reflect the activation status ongoing inflammatory process and could be a reliable marker of disease activity in psoriasis.

In this study, we checked serum levels of some proinflammatory cytokines (IFN-ɣ, TNF-α, IL-1β, IL-2, IL-6, IL-8, IL-10 and IL-12) using multiplex-ELISA method to increase sensitivity and compared these values with PASI score to find out parameters associated with disease severity in Korean population. We hope these data could serve as an objective tool to assess disease severity, progression and prognosis in psoriasis.

FC-7

CORRELATION OF SERUM URIC ACID WITH SEVERITY OF PSORIASIS

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Hyperuricemia is a frequent finding in psoriasis vulgaris. Enhanced purine catabolism due to the rapid turnover of psoriatric epidermis is thought to be the cause of the raised serum uric acid levels.

In the present study serum uric acid levels were evaluated in 153 patients with psoriasis vulgaris. And the variable characteristics of patients were studied with particular attention to severity and the extent of skin involvement. Severity of psoriasis was assessed by the psoriasis area and severity index(PASI).

The concentration of serum uric acid showed positive correlations with PASI and extent of psoriasis lesions, but it was not associated with onset, duration and family history of psoriasis. Serum uric acid levels were above upper limit of normal in twelve out of the 153(7.84%) patients. The mean PASI and extent of psoriasis were elevated in patients with hyperuricemia compared to those in patients with normal uric acid levels.

The findings of this study provides evidence that serum uric acid levels in patients with psoriasis vulgaris are statistically significantly associated with PASI and extent of skin involvement.

CP-1

A CASE OF PSORIASIS VULGARIS ASSOCIATED WITH GOUT

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Gout is a metabolic disease resulting from tissue deposition of monosodium urate crystals from supersaturated extracellular fluids. The cutaneous manifestations of gout include acute gouty arthritis and chronic disease with aggregates of crystals in connective tissues (tophi). Hyperuricemia and secondary gout are well-reported complications of increased nucleic acid turnover of myeloproliferative disease. Gout is also associated with diseases with high tissue nucleic acid turnover such as psoriasis.

We describe a 64-year-old man with gout, who developed psoriasis vulgaris later. The patient had previously hypertension and stroke history. Eight years ago, polyarticular gouty arthritis developed; since then, he had been treated at department of rheumatology with oral colchcine and allopurinol. About 4 years after gout attack, he noted erythematous scaly lesions on scalp and elbows. On physical examination, one gouty tophus was observed on his right lateral malleolus in addition to skin lesions. Histopathologic examination from his elbow showed typical findings of psoriasis. Since then he had been treated with calcipotriol cream and topical corticosteroid.

FC-8

METHOD OF ASSESSING INVOLVED FACIAL PSORIASIS AREAS: RULE OF FOURS

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The face is the most important area in cosmetic concern and social activity, and the facial involvement in psoriasis is more frequent than expected. Extent is probably the most easily measured index of patient disability in dermatologic disorders including psoriasis. However, no standard method is available for assessing involved facial psoriasis areas. The aim of this study is to examine validity and reliability of rule of fours, a devised method for assessing involved facial psoriasis areas.

The validity and reliability of rule of fours were investigated by 10 dermatologists using 30 photographs of facial psoriasis patients. Initially, all raters estimated facial areas involved by psoriasis without instruction for assessing involved areas in the morning (global assessment). To assess intrarater reliability, photographs were randomly assigned and raters repeated identical procedure in the afternoon. One week later, raters received detailed training (at least 1.5 hours) on use of the rule of fours. On the next day, each rater evaluated 30 photographs of facial psoriasis using rule of fours in the morning and again in the afternoon. Image analysis values were considered as reference values

Mean estimated area by global assessment was significantly larger than that determined by image analysis and significant differences were found among 10 raters. In contrast, values obtained using the rule of fours were compared with values obtained using an image analysis system and interrater reliabilities determined by rule of fours were excellent. Both global assessment and rule of fours showed excellent intrarater reliabilities.

In summary, it is our belief that the method based on the rule of fours, provides a means for assessing involved facial areas, and that the method is accurate, reliable, and compares well with values obtained by image analysis.

FC-9

COMORBIDITIES IN KOREAN PSORIATIC PATIENTS

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Psoriasis a common, chronic, immune-mediated disease that affects about 1% to 3% of the adult population. The pathophysiology of psoriasis is characterized by an increase in antigen presentation, T-cell activation, and the up-regulation of T-helper cell type 1 (TH1) cytokines. Psoriasis is also associated with markers of systemic inflammation, such as increased C-reactive protein and erythrocyte sedimentation rate levels. The immunological abnormalities that lead to the development of psoriasis suggest that these patients may be at increased risk for other diseases associated with an inflammatory state. TH1 immune response, including activated T cells, antigen presenting cells, and cytokines are important to the development of atherosclerosis, myocardial infarction and arthritis. Obesity, metabolic syndrome and insulin resistance are also associated with TH1 immune response.

Several studies in the literature suggest a high prevalence of cardiovascular risk factors (eg, diabetes, hypertension, and hyperlipidemia) as well as cardiovascular disease in psoriasis patients. In addition, smoking and obesity are associated with psoriasis. Recent evidence suggests that smoking and an elevated body mass index (BMI) may be risk factors for the development of psoriasis.

We designed the study that investigate comorbidities in adult Korean psoriatic patients. The aim of this study was to investigate the prevalence of comorbidities in Korean psoriatic patients compared with non-psoriatic patients. A total of 100 psoriatic patients living in Korea were enrolled in the study. All patients were examined by dermatologists at the Department of Dermatology, Kyung Hee University Hospital, Seoul, Korea between October 2007 and February 2008. A total 100 control subjects with newly diagnosed dermatological conditions other than psoriasis were selected. In our study, we did not observe significant difference between the study and control group in the prevalence of cardiovascular risk factors.

CP-2

TERBINAFINE-INDUCED PSORIATIC AGGRAVATION

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Drug reaction is the second most common cause of erythroderma and various drugs are known to produce erythroderma, which occurs de novo or as flare-up of psoriasis. Terbinafine is a generally well tolerated antifungal agent and adverse effects have been reported in about 10.5% of patients. Most adverse skin reactions are mild to moderate lesions such as rash, pruritus, urticaria, and eczema. But more significant or life-threatening reactions including Stevens-Johnson syndrome/toxic epidermal necrolysis, exacerbation or induction of psoriasis, erythroderma, and terbinafine hypersensitivity syndrome have been reported, too.

A 63-year old male with a 2-year history of psoriasis had been admitted to our clinic for generalized erythroderma with fever and chilling. The patient had been treated at local clinic with oral acitretin, corticosteroid, and narrow band UVB therapy. Before the erythrodermic eruption, oral terbinafine was administered to treat onychomycosis for 3 weeks. Histopathologic finding was compatible with psoriasis, and prior medications except for acitretin were stopped and then skin lesion showed much improvement. At that time, the possible cause of erythrodermic eruption was thought to be terbinafine or burn after phototherapy, but was not confirmed. During last 4years, the psoriatic lesion has been stable but it was exacerbated again after re-medication of terbinafine for onychomycosis by the doctor who didn't know his past history. We think that this happened to be provocation test. By these findings, this case could be confirmed to be terbinafine-induced psoriatic aggravation.

FC-10

OPEN LABEL, SINGLE ARM, MULTI-CENTER, PHASE 3 CLINICAL TRIAL OF ALEFACEPT 15MG WEEKLY IM FOR 12 WEEKS FOLLOWED BY 12 WEEK REST PERIOD TO INVESTIGATE EFFICACY AND SAFETY OF ALEFACEPT IN CHRONIC PLAQUE TYPE PSORIASIS

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A total number of 58 subjects with chronic plaque psoriasis involving more than 10% of body surface area and require systemic therapy or phototherapy were enrolled in eleven centers in Korea to investigate efficacy and safety of alefacept in moderate to severe psoriasis. Primary end point was ratio of patients showing PASI75 improvement at least more than once in the assessment during the 12-week injection period followed by 12-week rest period. Various secondary end points were measured.

Statistical analyses was conducted based on non-inferiority trails methods and the number of subjects needed was calculated as 58 under the assumption of non-inferiority margin of 14.78% and dropout rate of 25%. Reference group for non-inferiority was Biogen-idec study 712 and 711. Efficacy evaluation was performed for 58 subjects in full analysis group (FA) and 43 subjects in per-protocol analysis group (PP) whereas safety analysis was done for all 58 subjects enrolled in the study.

Non-inferiority of alafacept in terms of efficacy was confirmed. The lower end of 95%

confidence interval of primary efficacy variable was greater than 14.78% by showing 34% (PP) and 31% (FA).

Alefacept has shown longterm maintenance of effects in the previous clinical trials. In the present clinical trial, number of subjects maintaining PASI75 improvement at the end of clinical trial period was 11 (55%) and 13 (54%) in PP and FA respectively. Qaulity of life measured with SF-36 and DLQI was improved at the same time frame as that of PASI and PGA.

60.34% of subjects showed adverse events at least more than once and 87.88% of them were mild. Causality with alefacept was possible or probable in 36.36% of them but no serious adverse event was reported. One subject showing decrease of CD4+ lymphocytes below 250 cells/uL was recovered in 3 weeks. Among adverse events six was reported to have infections among whom 5 had mild infection and one had moderate uveitits. Anti-alefacept antibody was not observed to develop during clinical trial period.

In conclusion, alefacept showed excellent efficacy and safety in moderate to severe plaque type psoriasis in 12 week injection and 12 week rest period.

CP-3

A CASE OF SEVERE PSORIASIS IN IDENTICAL TWIN TREATED WITH ETANERCEPT AND LOW DOSE CYCLOSPORINE

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Moderate to severe psoriasis, which is defined as psoriasis affecting more than 20% of the body surface area, often requires a combination of therapies to achieve remission. Combination therapies are often more

effective and safer than single-agent therapy. Apparent synergistic enhancement is seen with most paired combinations of the four major therapies: acitretin, phototherapy, cyclosporine, and methotrexate. With the emergence of new biologic therapies, dermatologists now have a wider array of tools for use against pasoriasis. Although numerous data exist regarding the use of cyclosporine and biologic agent therapy alone for psoriasis, little is known about the efficacy, safety, and tolerability of cyclosporine combined with biologic agents.

The concordance rates for psoriasis in monozygotic twins estimate from previous studies about 70%. Here we report a pair of male identical twins who developed severe psoriasis. The combination therapy that comprised of etanercept, low-dose cyclosporine, induced rapid improvement of the psoriatic lesions and quality of life dramatically.

FC-11

QUESTIONNAIRE INVESTIGATION OF PREFERENCES AND SATISFACTION ABOUT TOPICAL CALCIPOTRIOL OINTMENT

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Psoriasis is a chronic inflammatory skin disease and has a high impact on patients' quality of life. Due to the chronic nature of psoriasis, the treatment modalities should be chosen carefully to avoid side effects and maintain long-term efficacy. Among them, topical anti-psoriatic ointments have been being primary choice due to its easy acceptability and relatively various modes of actions for managing mild to moderate psoriasis. Topical agents for psoriasis include tars, anthralin, corticosteroid, vitamin D analogs, tazarotene, topical calcineurin inhibitors, and salicylic acid. Each one has its unique mechanism of actions and side effects, and needs cautious application. Calcipotriol, vitamin D analog which inhibits keratinocyte proliferation, has been widely used for its safety, relatively good efficacy and long-term clinical experiences. Thus, we have performed questionnaire survey about preferences and satisfaction for calcipotriol ointment in order to acquire information about patients` compliances for the topical calcipotriol. From March 2007 to November 2007 seven University hospitals were involved for this subject, and total 420 patients with psoriasis were asked to complete a questionnaire on this topic. Here we report the result of questionnaire survey about the patients` compliance and satisfaction about topical calcipotriol ointments.

FC-12

QUESTIONNAIRE INVESTIGATION OF PREFERENCES AND SATISFACTION ABOUT TOPICAL MODALITIES FOR THE TREATMENT OF SCALP PSORIASIS

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The scalp is a common site of involvement of psoriasis, which, due to its visibility and itchiness, affects markedly on individuals' quality of life and thus warrants effective, long-term treatments.

A problem characteristic of scalp psoriasis is the limited accessibility of affected area to topical treatments because of the presence of hair. Also, many of topical scalp agents can be unpleasant, malodorous, and unfavorable cosmetically for the patients. Therefore, many patients show poor compliance in the topical treatment of scalp psoriasis due to this discomfort sense and poor efficacy. In order to provide patients with more acceptable treatments or regimens for the treatment of scalp psoriasis, we evaluate the patients' preferences and satisfaction about topical preparations including corticosteroids and calcipotriol with various vehicles for the treatment of scalp psoriasis. A total of 352 patients with scalp psoriasis recruited from 7 University Hospitals in Korea was asked to complete questionnaire about their preference and complaints about currently used topical agents for scalp psoriasis. We hope this study would give valuable information for choosing appropriate topical agents and increase patients' compliance for topical agents for the treatment of scalp psoriasis.

FC-13

CLINICAL SURVEY OF CLOBEX SHAMPOO FOR TREATMENT OF SCALP PSORIASIS

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Scalp psoriasis presents difficulties in the management due to regional characteristics of skin and differences in therapeutic response. Recently new topical agent of shampoo form (Clobex lotion) was introduced. A pilot survey to find out some clinical characteristics of scalp psoriasis was done in 8 hospitals for 143 patients. The efficacy and side effects during trial periods are also surveyed in 66 case of them. Patients applied 0.05% clobestasol lotion(Clobex shampoo) on the dry scalp for 15 minutes before washing out daily for 2 weeks.

Most popular type of formulation used by patients in the past was topical steroid solutions (57.5%). Patients point out low efficacy(47.6%) and side effects from long term use(41%) as unsatisfactory aspects of past remedies. Patients hope better efficacy(54%) and safty(42.7%) for new agent. They prefer shampoo type(50.7%) or lotion type(37%) formulation for scalp psoriasis.

Comparing with baseline, involved area, GSS and TSS were all improved significantly after 2 weeks of trial. Quality of Life(QoL) surveyed by Skindex-29 tool was improved also. In around 70% of patients were satisfied with formulation type and using method and the efficacy of Clobex shampoo. Dryness of scalp was the only side effects found in 4 of 66 patients(6.2%) during 2 weeks of trial period.

대한건선학회 임원 및 평의원

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