The 14th Annual Meeting
The Korean Society for Psoriasis

PROGRAM

May 15, 2010

Diamond Hall
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

인 사 말 씀

대한건선학회 제14회 학술대회를 맞이하여 그 동안 성원하고 지원하여 주신 회원 여러분들께 깊은 감사의 말씀을 드립니다. 우리 건선학회는 건선의 임상 증례 발표 이외에도 건선의 발생기전과 치료에 관한 폭넓고 깊이 있는 연구를 발표하고 토론하는 장이 되어 왔으며, 국내의 건선에 관한 기초 및 임상 연구에 중추적인 역할을 하고 있습니다.

건선은 발생기전에 대한 면역학적, 분자생물학적 연구가 전세계적으로 활발하게 진행되고 있으며 특히 치료에 있어서는 biologics를 비롯한 다양한 최신 치료법들이 시도되고 있는 질환입니다.

금년도 학술대회에는 일본 Kyushu University의 Masutaka Furue 교수께서 "Psoriasis: What we know" 라는 주제의 특별강연을, 영국 Royal Devon & Exeter NHS Foundation Trust Hospital의 Dr. Downs의 "Scalp psoriasis" 를 주제로 하는 특별강연을 준비하였습니다. 또한 교육강연은 Special manifestations of psoriasis를 주제로 하여 윤재일 교수(Relationship between Psoriasis and Psoriatic arthritis), 김기호 교수(nail psoriasis), 이증훈 교수(pustular and erythrodemic psoriasis)께서 발표해주시며 건선의 특이한 임상 양상을 보이는 이들 질환을 이해하고 치료하는데 많은 도움이 될 것으로 생각합니다.

국내외적으로 경제적 여건이 어려운 시기임에도 불구하고 이번 제14회 학술대회를 준비하는데 수고하신 건선학회 임원 여러분과 동참하여 주신 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.

2010년 5월 15일

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	7 minute presentation+1 minute discussion
Educational lectures	13 minute presentation+2 minute discussion
Special lectures	50 minute presentation+5 minute discussion

▶ Preview Booth: Located in Registration Area (Harmony Level)
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, 17:30~18:30) is ready for all the participants.
Please enjoy tasty cuisine and beverage with your colleagues and friends.

PROGRAM

MORNING SESSIONS

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]**
Chairs: **KIM Nack-In**(*Kyung Hee Univ.*), **AHN Kyu-Joong**(*Konkuk Univ.*)

FC-6 DEVELOPMENT OF PEMPHIGUS FOLIACEUS IN A PATIENT WITH PSORIASIS RECEIVING UVB-LIGHT TREATMENT: A SIMPLE COINCIDENCE? ····· **32**

KWON Hyuck Hoon, CHUNG Jin Ho, YOUN Jai Il

Department of Dermatology, College of Medicine, Seoul National Uiversity

FC-7 DEVELOPMENT OF PSORIASIS ON HYPERTROPHIC SCAR AFTER MOXACAUTERY ····· **33**

YOON So Young, KWON Hyuck Hoon, YOUN Jai Il

Departmnet of Dermatology, College of Medicine, Seoul National Uiversity

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PARK Oun Jae, LEE Sang Min, WON Chong Hyun, CHANG Sung Eun, LEE Mi Woo, CHOI Jee Ho, MOON Kee Chan

Department of Dermatology, Asan Medical Center, College of Medicine, University of Ulsan

FC-9 NEW ONSET PSORIASIS FOLLOWING PANDEMIC H1N1 INFLUENZA VACCINATION ····· **35**

SHIN Moon-Seub, PARK Hai-Jin, KIM Seong-Hyun, LEE You-Shin, KWAK Yee-Gyoung[1]

Department of Dermatology, Division of Infectious disease[1], Inje University Ilsan Paik Hospital

FC-10 PSORIASIFORM DRUG ERUPTION INDUCED BY ANTI-TUBERCULOSIS MEDICATION: POTENTIAL ROLE OF PLASMACYTOID DENDRITIC CELLS ····· **36**

PARK Jae-Jeong, LEE Jee-Bum, KIM Seong-Jin, LEE Seung-Chul, WON Young Ho, YUN Sook Jung

Departments of Dermatology, Chonnam National University Medical School

FC-11 A CASE OF MYCOSIS FUNGOIDES EVOLVING FROM HCV INFECTION ····· **37**

KIM Dong Ha, KIM Hyun Kyu, PARK Juhee, YOO Kwang Ho, PARK Kui Young, LI Kapsok, SEO Seong Jun, HONG Chang Kwun

Department of Dermatology, College of Medicine, Chung-Ang University

11:00-12:00 **SPECIAL LECTURE I [SL]**
Chairs: **CHOI Jee-Ho**(*Ulsan Univ.*)

SL-1 **"SCALP PSORIASIS: DIAGNOSIS AND MANAGEMENT"** ····· **15**

Dr. DOWNS Tony

Royal Devon & Exeter NHS Foundation Trust Hospital

12:00-13:30 *Lunch* & Council meeting (평의원회의)

AFTERNOON SESSIONS

13:30-14:30 **SPECIAL LECTURE II [SL]**
Chair: **YOUN Jai-Il**(*Seoul Univ.*)

14:30-15:30 **FREE COMMUNICATIONS II [FC]**
Chairs: **KIM Kwang-Joong**(*Hallym Univ.*), **KIM Tae-Yoon**(*Catholic univ.*)

FC-17 CLINICAL EVALUATION AS TO TOPICAL THERAPY FOR NAIL PSORIASIS USING HIGH CONCENTRATION MAXACALCITOL LOTION; VITAMIN D_3 LOTION ····· **43**

YAHAGI Eiichiro, AKASAKA Emiko, HIRUMA Azusa, MABUCHI Tomotaka, IKOMA Norihiro, TAMIYA Shiho, MATSUYAMA Takashi, KUSAKABE Yoshiyuki, KURIHARA Seiichi, OZAWA Akira

Department of Dermatology, School of Medicine, Tokai University

FC-18 THE EFFECT OF CALCIPOTRIOL ON THE EXPRESSION OF HUMAN β-DEFENSIN-2 AND LL-37 IN CULTURED HUMAN KERATINOCYTES ····· **44**

KIM Dong Ha, KIM In Su, PARK Juhee, YOO Kwang Ho, KIM Beom Joon, KIM Myeung Nam, PARK Kui Young, LI Kapsok, SEO Seong Jun, HONG Chang Kwun

Department of Dermatology, College of Medicine, Chung-Ang University

FC-19 ASSOCIATION BETWEEN PSORIASIS AND CARDIOVASCULAR RISK FACTORS AND METABOLIC SYNDROME ····· **45**

KIM Byung-Chul, CHOI Woo-Jin, PARK Eun-Joo, KWON In-Ho, KIM Kwang-Ho, KIM Kwang-Joong

Department of Dermatology, Hallym Medical Center, College of Medicine, University of Hallym

15:30-16:00 *Coffee Break*

16:00-17:00 **EDUCATIONAL LECTURES [EL]**
Chair: **KIM Do-Won**(*Kyungpook Univ.*)

SPECIAL MANIFESTATIONS OF PSORIASIS

EL-1 RELATIONSHIP BETWEEN PSORIASIS AND PSORIATIC ARTHRITIS ····· **21**

YOUN Jai Il

Department of Dermatology, College of Medicine, Seoul National Uiversity

EL-2 NAIL PSORIASIS ····· **22**

KIM Ki-Ho

Department of Dermatology, College of Medicine, Dong-A University

EL-3 PUSTULAR AND ERYTHRODERMIC PSORIASIS ····· **23**

LEE Jeung-Hoon

Department of Dermatology, College of Medicine, Choongnam University

17:00-17:30 Closing Remark & General Meeting of Korean Society for Psoriasis

17:30- Farewell Cocktail Party ALLEGRO Room(Harmony Level)

SPECIAL LECTURES

CURRICULUM VITAE

Dr. **ANTHONY MAGIN ROBERT DOWNS (DOWNS Tony)**

Medical School: Guys Hospital. Qualified- 1991

University of London Bsc in Experimental Pathology- 1987

MRCP (London)- 1995

Bristol Royal Infirmary: Dermatology training post.
CSST(UK) in dermatology- 2000

FRCP (London)- 2004

Consultant Dermatologist: Royal Devon & Exeter NHS Foundation Trust. Appointed 2003

Specialist Clinics in Dermatology Surgery, Psoriasis, Combined Rheumatology, Pigmented Lesion/ Melanoma, Skin lasers and Dermoscopy

I hold a teaching hospital post with dermatology trainees and medical students.

Lead Clinician for the Dermatology Unit 2005-2008

Skin Cancer lead clinician and regional MDT chairman since 2006

Director of Medical Lasers at Exeter Medical: This is a combined laser and IPL service for the NHS (Devon, Cornwall, Somerset, Dorset) and also private patients. It is the regional specialist laser centre for adults and children.

ADDITIONAL CURRENT ACTIVITIES

1. Member of South West Advisory Committee on Dermatology 2000 - date
2. British Skin Laser Study Group committee member 2001 - date
3. Member of South West Skin Cancer Intelligence Agency 2000- date
4. Member of Peninsular Skin Cancer Network Group 2003 – date.
5. Honorary Tutor, Cardiff University 2004 - date
6. Member of National UK Psoriasis Council 2005 – date
7. External examiner for International Diploma of Dermatology, 2004 - date
8. British Photo Dynamic Therapy for Dermatology Association committee member 2008- date
9. Committee member of British Association of Dermatologist Biologics Investigation Register
10. Tutor for the Primary Care Dermatology Society

REVIEWER FOR MEDICAL JOURNALS

Reviewer for *Parasitology Today, Archives of Dermatology, British Journal of Dermatology, Journal of the American Academy of Dermatology, Clinical & Experimental Dermatology, Journal of European Academy of Dermato-Venereologists, Drugs & Therapeutics Bulletin, Prescriber & The Medical Letter.* Also reviewed articles for *Am J Obs & Gynaecol.*

MEMBERSHIP OF SOCIETIES

British Association of Dermatologist; American Academy of Dermatologists; British Society for Investigative Dermatology; South West of England & Wales Dermatology Society; British Society of Dermatology Surgeons; British Medical Laser Association and European Laser Association.

TEACHING

As a consultant, I have organised and given lectures and tutorials to GPs, GP registrars, nurses, and medical students (including course work assessment) and participated in MRCP teaching. I help in the training of dermatology registrars and have encouraged a number of trainee led research projects and audits.

I completed Peninsular Medical Students teaching badge, Sept 2005.

I teach and examine postgraduate doctors taking the International Diploma in Dermatology.

I organise the Clinical Assistants in Dermatology (CAM) national annual meeting.

I organise and teach in the quarterly GP 'skin forum' clinical training sessions.

I act as educational mentor for dermatology registrars in training.

I viva voce MSc and MD students on dermatology and laser theses.

I am an honorary tutor at the University of Wales

RESEARCH

I have published over 100 peer review articles, ranging from many original studies, review articles, and case reports. I have presented original data at national and international dermatology scientific meetings and lecture frequently. My main areas of research have been skin parasites, lasers, skin surgery and psoriasis. I hold an honorary research post at the University of Bristol.

SL-1

SCALP PSORIASIS: DIAGNOSIS AND MANAGEMENT

Dr. **DOWNS Tony**

Consultant Dermatologist, Royal Devon & Exeter NHS Foundation Trust Hospital

Psoriasis affects up to 2% of the population with estimates suggesting 20% would be classed as having severe disease. Scalp involvement is said to occur in up to 80% of cases. It can occur in isolation or with additional psoriasis located elsewhere on the skin or with joint involvement. Specific grading systems are not as robust as PASI for quantifying regional psoriasis and scalp psoriasis is often divided into mild, moderate and severe severity groups. The degree of scaliness, percentage scalp coverage and intensity of itch are the parameters usually used to judge disease severity but addition factors are just as important such as psychological impact; effect on social interactions and lifestyle choices; and the severity and type of any associated alopecia.

It is not uncommon for patients to regard scalp treatments as messy, smelly, sticky, time-consuming and ineffective. A survey of UK patients found a non-compliance rate of 39%. Reasons given for non-compliance included forgetfulness, lack of efficacy, lack of time, unclear instructions and difficulty in using the scalp product prescribed. Treating scalp psoriasis has additional challenges for the clinician. Treatments need to adapted to the situation and may need to be different when dealing with initial disease control compared to maintaining remission or managing flares or minimizing treatment side-effects or addressing quality of life issues.

A number of treatments have developed over the years to treat scalp psoriasis. These include tar, dithranol, salicylic acid, vegetable oils, topical steroids and topical calcipotriol. For severe recalcitrant disease, systemic agents such as methotrexate or cyclosporin A are acceptable. More recently, pharmaceutical companies have released a range of topical steroids in different vehicles or formulations in order to improve cosmetic acceptability, efficacy and ultimately patient compliance. The success of Daivobet® ointment (calcipotriol and betamethasone dipropionate) on body psoriasis has also led to the development of a scalp gel with the same active ingredients – Xamiol® gel. With these treatment advances and a willingness of clinicians to tailor scalp treatments to the clinical findings, scalp psoriasis should be far easier to successfully manage. The key, as in all aspects of medicine, is to invest time with the patient so that they understand the reason for the treatment or treatments selected.

This presentation will review the clinical features of scalp psoriasis, objectively assess its treatments and give advice on how to maximise efficacy.

CURRICULUM VITAE

FURUE Masutaka, M.D.,Ph.D.

Chairman and Professor

Department of Dermatology,

Graduate School of Medical Sciences, Kyushu University

3-1-1, Maidashi, Higashiku, Fukuoka, 812-8582, Japan

TEL : 092-642-5581

FAX : 092-642-5600

E-mail: furue@dermatol.med.kyushu-u.ac.jp

Academic Background

1980 March	Graduated from School of Medicine, University of Tokyo
1980 - 1986	Department of Dermatology, University of Tokyo
1986 - 1988	Visiting Fellow, Dermatology Branch, National Institutes of Health
1988 - 1992	Assistant Professor, Department of Dermatology, University of Tokyo,
1992 - 1995	Associate Professor, Department of Dermatology, Yamanashi Medical University
1995 - 1997	Associate Professor, University of Tokyo
1997 -	Chairman and Professor, Department of Dermatology, Kyushu University
2002 - 2004	Vice Director, Kyushu University Hospital
2001 -	Chief of Yusho study group
2008 -	Chief of Research and Clinical Center of Yusho and Dioxin (ReCYD), Kyushu University Hospital

Professional Society Memberships

2000 -	Japanese Dermatological Association, Board of Directors
1998 - 2002, 2004-	Japanese Society for Investigative Dermatology, Board of Directors
1999 -	Japanese Society for Dermatoallergology, Board of Directors
2005 - 2008	Japanese Society for Cosmetic Dermatology, President
2002 - 2008	Japanese Dendritic Cell Meeting, President

Bibliography

English publication: 306

SL-2

PSORIASIS; WHAT WE KNOW

FURUE Masutaka

Department of Dermatology, Kyushu University

Psoriasis is a chronic skin disorder which is characterized by epidermal hyperproliferation of premature keratinocytes associated with inflammatory infiltrate of dendritic cells, T cells and neutrophils. Recent advances in immunological analysis and dramatic effects of biologics emphasize a possibility that psoriasis is an autoimmune skin disease skewed to Th17 and Th1 profile. In my talk, I will overview recent topics of epoch-making hypotheses presented by Iizuka, Nickoloff, Sano, Nestle and Gilliet, Krueger, and Komine. Eosinophils are important population of white blood cells that differentiate Th2-prone atopic dermatitis from psoriasis. I would like to mention how eosinophilia is regulated under the Th1 / Th2 / Th17 / Treg influence. Although the biologics are not still available in Japan, therapeutic intervention by biologics is promising so far with oral and topical conventional agents.

EDUCATIONAL LECTURES

RELATIONSHIP BETWEEN PSORIASIS AND PSORIATIC ARTHRITIS

YOUN Jai Il

Department of Dermatology, College of Medicine, Seoul National University

Psoriasis is a chronic relapsing disorder which show variable clinical features. Psoriatic arthritis (PA) is a inflammatory arthritis associated with psoriasis of skin and nails and usually a negative serological test for rheumatoid factor. Prevalence of PA varies widely from 1% to 30% of those with psoriasis.

Psoriasis preceded arthritis in more than half of patients. The mean interval between psoriasis and psoriatic arthritis is 10 years. We assessed epidemiological and clinical data in newly registered patients in psoriasis clinic, Seoul National University Hospital and prevalence of psoriatic arthritis in Korean psoriasis patients and evaluate their clinical features. We including rheumatologist evaluated 504 patients with psoriasis who visited psoriasis clinic. Fity three of these patients (10.5%) were diagnosed as having PA. Most prevalent age of onset of PA was 40~49(26.4%), 30~39(20.8%), 20~29 (20.8%). The age of most frequent onset was in the third dacades (31.8%) in psoriasis group.

Age of onset was higher in PA group than psoriasis group. Joint frequently involved were knee (47.2%), sacroiliac (32.1%), PIP joint of hand (30.2%) and ankles (24.5%). Plaque type psoriasis was most common in psoriasis and PA groups. Pustular psoriasis was more frequent in the PA group than psoriasis group. Psoriasis preceded psoriatic arthritis in 73.6%. The mean interval was 12.2±10.1 years. Psoriatic arthritis preceded psoriasis in 11.3% with mean interval of 8.1 years. Simultaneous joint and skin disease occurred in 15.1%. Spondylitis was most predominant PA type.

Patterns of PA according to Moll and Wright's criteria were as follows. Spondylitis (43.4%), oligoarthritis (32.1%), polyarthritis (15.1%), predominant DIP involvement (7.5%). Spondylitis was accompanied by peripheral arthritis in 69.9%.

Psoriasis may be accompanied by arthritis and metabolic disorders. Moreover recent studies reported much higher prevalence of arthritis probably due to development of diagnostic method like as MRI, radioisotope scanning.

Dermatologist have more early chance to check psoriasis patients with joint involvement and metabolic disorders. Dermatologist have more responsibility for the early detection of PA.

Through early detection and proper treatment, we can delay and diminish joint involvement and damage in psoriasis patients.

EL-2

NAIL PSORIASIS

KIM Ki-Ho

Department of Dermatology, College of Medicine, Dong-A University

Nail abnormalities are present in about 50% of patients with psoriasis and may affect few or all of the nails with a spectrum of severity from minor cosmetic concern to pain and disability. Pitting, nail plate crumbling, onycholysis, and nail bed hyperkeratosis are all changes in the structure of the nail commonly seen in psoriasis. Most of the clinical signs of nail psoriasis are related to disease in the nail bed or nail matrix. Several authors have described systematic techniques for evaluating nail psoriasis, for examples, Baran's a nail psoriasis severity index, the nail psoriasis severity index (NAPSI), Cannavo's scoring system and nail psoriasis quality of life scale (NPQ10).

The incidence of nail disease is greater than 80% among PsA patients, but few patients receive treatment for nail disease. All types of nail changes were more common in HLA-Cw*0602-negative patients and HLA-Cw*0602-negative patients who had late onset tend to have severe disease. This group also found that nail lesions correlated with presence of PsA, and the severe nail matrix dystrophy subset had the strongest correlation. Severe nail disease is correlated with severe skin disease both in terms of extent of body surface area involvement and treatment resistance. Among patients with PsA, severe nail disease correlates with higher anxiety and depression scores.

How to treat the nail psoriasis depends on clinical features and patient situations. because the disease may affect few or all of the nails and range from minor cosmetic concern to pain and disability. And so it is feasible that various stepwise options include no treatment, topical therapy despite variable response according to the anatomic location, and systemic therapy if patients fail topical therapy, significant skin or joint disease is present, or their nail disease is especially severe (i.e., pustular psoriasis of the nails).

EL-3

TREATMENT OF PUSTULAR AND ERYTHRODERMIC PSORIASIS

LEE Jeung Hoon

Department of Dermatology, College of Medicine, Chungnam National University

Pustular and erythrodermic psoriasis can be a life debilitating and threatening disease. It runs a chronic course, or generally less stable in a more severe state which may result in secondary complications such as systemic infection and overwhelming sepsis, electrolyte imbalance, renal failure. Understanding of the treatment strategies demand the shrewd clinician to help the patient ameliorates, despite the challenges these difficult clinical forms of psoriasis. Our aim was to manage treatment options available to assist dermatologists treat patients with pustular and erythrodermic psoriasis. Therapy should be variable from traditional method to the currently available revolutionized management. Therapeutic planning must consider that the currently available treatments will be used for many years. Thus they must be used in a manner that will minimize long-term toxicity. Strategy of therapy for pustular and erythrodermic psoriasis will be discussed in this lecture.

FREE COMMUNICATIONS

FC-1

A CASE OF EXACERBATION OF PUSTULAR PSORIASIS DURING BIOLOGICS THERAPY

BANG Chul-Hwan, LIM Jong-Ho, KIM Tae-Yoon

Department of Dermatology, Catholic University Seoul St. Mary's Hospital

Acrodermatitis continua of Hallopeau (ACH) is rare acropustular eruption, characterized by sterile pustules, atrophic skin changes and onychodystrophy. ACH shows a chronic course with a tendency of the lesions spreading proximally. And the development of pustules at other sites, or even the eruption of generalized pustular psoriasis, supports the idea that ACH is a variant of psoriasis.

ACH is notoriously difficult to treat, with limited success reported including many therapeutic modalities. Recently, there have been reports of effective treatment with the biologic agents. And some authors suggest adalimumab as a treatment of choice in ACH, which proved to be a safe therapeutic alternative but appeared to be more cost-effective than other biologics. However, inhibition of TNF alpha with any biologics might induce cytokine imbalance and exacerbation of psoriasis at consequence.

We experienced an exacerbation of pustular psoriasis in a 65-year-old woman with ACH during biologics therapy. The patient had 2-year history of ACM, treated with topical agents, narrow band ultraviolet B(NBUVB), and systemic agents. Pustular psoriasis on the body was controlled well with NBUVB and topical agents, but ACH and arthritis developed gradually and resisted to the treatments. To treat ACH, subcutaneous etanercept 25 mg twice a week was started. However, since there was no improvement in symptoms, other trial was done, adalimumab 40mg weekly for three weeks. One week later after the first adalimumab injection, burning sensation and severe pruritus developed with generalized pustules on the trunk and back. And the symptoms got worse by time. Adalimumab was discontinued and cyclosporine 4mg/kg daily was started. The skin lesions resolved two weeks later with the treatments.

FC-2

A CASE OF GUTTATE PSORIASIS ASSOCIATED WITH LEUKOCYTOCLASTIC VASCULITIS

KO Jong-Hyun, PARK Hyun-Jung, HAN Hyung-Jin, HWANG Young-Ji, KIM Ji-Young, OH Byung-Ho, LEE Yang-Won, CHOE Yong-Beom, AHN Kyu-Joong

Department of Dermatology, School of Medicine, Konkuk University

Although the pathogenesis of psoriasis is still not clearly elucidated, it has been considered that an abnormality of the innate immunity such as an increase of antimicrobial peptides (AMPs) contributes to the development of the initial lesions of psoriasis while the adaptive immunity which abnormally activates T-cells contributes to the development of the lesions of chronic psoriasis. If β-hemolytic streptococcal infection occurs to one who has a genetic predisposition to psoriasis, stimulated innate immunity and activated T-cells by superantigen of the infectious bacteria lead to psoriasis, and the destructive pathway of the endothelial cells from complement activation by infection induces vasculitis.

We herein report an intriguing case, featuring a 26 year-old male patient who has been found to have leukocytoclastic vasculitis and guttate psoriasis simultaneously after acute pharyngitis, which would be helpful in understanding the pathophysiologic mechanism of the development of the initial lesion of psoriasis.

FC-3

PITYRIASIS ROTUNDA WITH FAMILIAL TENDENCY

NA Sun Jae[1], JUNG Jae Yoon[1], KIM Min Ji[1], NA Se Young[1], LEE Jong Hee[1,2], CHO Soyun[1,2]

Department of Dermatology, College of Medicine, Seoul National University[1], Department of Dermatology, Seoul National University Boramae Hospital[2]

Pityriasis rotunda is a rare condition characterized by the insidious appearance of strikingly circular, slightly scaly, hyper- or hypo-pigmented patches over the trunk and proximal limbs. Most reported cases were in Asian and black patients with underlying diseases, such as tuberculosis, malnutrition and malignancy. However cases of healthy Caucasians were reported with familial tendency. We report a case of familial pityriasis rotunda in a 33-year-old Korean man and his 4-year-old daughter. He presented with non-pruritic scaly round hypopigmented patches on both arms, thighs and buttock. The lesions improved with daily use of topical urea/emollient lotion and oral isotretinoin (10 mg/qod) for 4 weeks.

FC-4

UNILATERAL PSORIASIS IN A WOMAN WITH A SECONDARY LYMPHEDEMA AFTER MASTECTOMY FOR A BREAST CANCER

KIM Min Ji[1], JUNG Jae Yoon[1], NA Se Young[1], NA Sun Jae[1], LEE Jong Hee[2], CHO Soyun[1,2]

Department of Dermatology, College of Medicine, Seoul National University [1], Department of Dermatology, Seoul National University Boramae Hospital[2]

Psoriasis is a multifactorial disease with various clinical manifestations. Involvement of the lesion is usually symmetric, but unilateral location is seen in peculiar conditions such as post-neurosurgery, as a Koebner reaction after radiotherapy, in association with ILVEN, and so on. We present a case of unilateral psoriasis that developed after mastectomy for a breast cancer. A 42-year-old woman was referred to our clinic with one-month history of multiple erythematous scaly patches on the right arm, back and breast and was diagnosed with psoriasis through skin biopsy. Three years previously, she was diagnosed with breast cancer(T1N2), underwent right quadrantectomy and axillary lymph node dissection, and completed adjuvant chemotherapy, followed by high-dose adjuvant radiotherapy. Thirty months previously, she started rehabilitation therapy on the right arm for secondary lymphedema. Because of the long time interval between radiation and psoriasis, it was difficult to consider the unilateral distribution as a Koebner phenomenon. We speculate that changes of local milieu caused by lymphedema or mild damage of postsurgical peripheral nervous system could have resulted in the unilateral distribution of psoriasis. We hereby report a rare case of unilateral psoriasis following secondary lymphedema after mastectomy.

FC-5

A CASE OF RECALCITRANT CLASSIC PITYRIASIS RUBRA PILARIS WITH GOOD RESPONSE TO METHOTREXATE

SHIM Woo-Haing, KIM Hoon-Soo, KIM Su-Han, KO Hyun-Chang, KIM Byung-Soo, KIM Moon-Bum, KWON Kyung-Sool

Department of Dermatology, College of Medicine, Pusan National University

Treatment of pityriasis rubra pilaris (PRP) includes systemic retinoid, methotrexate, topical corticosteroid, calcipotriol and phototherapy. However, the efficacy of these treatments is unpredictable and successful therapy can be challenged. A 65-year-old man presented with a month history of widespread orange-erythematous follicular hyperkeratotic papules and confluent plaques with island of sparing. The histology was compatible with PRP. The initial treatment regimens which include systemic acitretin, topical corticosteroid and narrow band-UVB were unsuccessful. We changed the regimen with systemic cyclosporine, but the cutaneous lesions and pruritus were constant in spite of six months of therapy. He was then treated with methotrexate (MTX) 15mg/week orally. After a month of therapy, he experienced remarkable improvement of symptom and showed constant improvement from then.

We reported a case of recalcitrant classic pityriasis rubra pilaris showing good response to systemic methotrexate. It is thought to be reasonable to consider MTX as a therapy for chronic recalcitrant PRP.

FC-6

DEVELOPMENT OF PEMPHIGUS FOLIACEUS IN A PATIENT WITH PSORIASIS RECEIVING UVB–LIGHT TREATMENT: A SIMPLE COINCIDENCE?

KWON Hyuck Hoon, CHUNG Jin Ho, YOUN Jai Il

Department of dermatology, College of Medicine, Seoul National University

Although psoriasis and pemphigus are considered to be completely different disease entities, the literature have reported several cases of psoriasis associated with bullous diseases, the most of which is bullous pemphigoid. Pemphigus foliaceus is also reported in association with psoriasis in a few cases. In most reported cases, pemphigus lesions developed on the untreated patient with a chronic history of psoriasis. Whether the triggering stimuli of external factors or psoriasis itself is ultimately responsible for the induction of pemphigus has not been clearly elucidated. Possible pathogenic relations could be explained by local microenvironment favoring a second autoimmune response. Hereby we report a case of of 53 year old male with chronic psoriasis who first developed bullous and erosive lesions after 26 cycles of narrow band UVB therapy, cumulative dose of which was 65930 mJ. Diagnosis was made based on skin biopsy and direct immunofluorescence assay. Pemphigus lesions were were well controlled with combination therapy of oral steroid and azatioprine. This is the first case where pemphigus foliaceus co-occurred with psoriasis during narrow band UVB therapy.

FC-7

DEVELOPMENT OF PSORIASIS ON HYPERTROPHIC SCAR AFTER MOXACAUTERY

YOON So Young, KWON Hyuck Hoon, YOUN Jai Il

Departmnet of Dermatology, College of Medicine, Seoul National Uiversity

The Koebner phenomenon, described by Koebner in 1876, is the development of new isomorphic lesion on the unaffected skin after an injury. It is appeared in psoriasis, lichen planus, vitiligo etc. and especially about 25% of psoriasis patients experience this response. The exact pathogenesis of Koebner phenomenon is unknown yet, but some cytokines and inflammatory mediators are thought to be associated with it. The injury which can trigger Koebner phenomenon is very diverse. It includes irritation, physical injury, surgical wound, sunburn and radiation therapy. We report a case of Koebner phenomenon in psoriasis in a 43-year-old woman after moxacautery, a type of the traditional Chinese medicine. She have suffered from psoriasis for 33 years. Four months ago she got burned by moxacautery and those skin lesions transformed to hypertrophic scar and psoriatic lesions on the exact same sites. The lesions are well-demarcated scaly erythematous papules and plaques. She was treated with calcipotriol and high potent steroid ointment, but the effect was limited. In Korea, moxicautery is widely performed because it is believed to have effects on pain control, feeling healthy condition and even on prevention of cancer. This case report suggests that psoriasis patients should be careful about physical stimuli.

FC-8

PSORIASIS INDUCED BY ADALIMUMAB: A PARADOXICAL ADVERSE REACTION

PARK Oun Jae, LEE Sang Min, WON Chong Hyun, CHANG Sung Eun, LEE Mi Woo, CHOI Jee Ho, MOON Kee Chan

Department of Dermatology, Asan Medical Center, College of Medicine, University of Ulsan

Adalimumab, a recombinant human IgG monoclonal antibody, selectively blocks tumor necrosis factor-alpha (TNF-α) and has been successfully used in the treatment of immune-mediated diseases. In particular, its efficacy has been proven in the treatment of rheumatoid arthritis, spondylarthritis, lymphoproliferative diseases and inflammatory bowel disease. Its use has also been studied for the treatment of psoriasis and yet, paradoxically, cases of new onset or exacerbation of psoriasis continue to increase in patients undergoing treatment with anti TNF-α agents. A 51-year-old woman had arthritis for a year and was diagnosed with psoriatic arthritis. After she had received Adalimumab for psoriatic arthritis five times during one year, erythematous eruptions were found on her entire body. She then stopped adalimumab therapy for two months, although her skin lesions did not resolve. The patient was diagnosed with psoriasis through biopsy and began using cyclosporine, a topical steroid used for treatment of psoriasis.

FC-9

NEW ONSET PSORIASIS FOLLOWING PANDEMIC H1N1 INFLUENZA VACCINATION

SHIN Moon-Seub, PARK Hai-Jin, KIM Seong-Hyun, LEE You-Shin, KWAK Yee-Gyoung[1]

Department of Dermatology, Division of Infectious disease[1], Inje University Ilsan Paik Hospital

Since the first case with swine origin influenza A (H1N1) infection had been described in Mexico and the United States in April 2009, novel influenza A (H1N1) virus had been spread to all over the world. In November 2009, pandemic influenza A (H1N1) vaccine without adjuvant was used on a national scale. Pandemic influenza A (H1N1) vaccine is an inactivated vaccine that can be divided whether it contains adjuvant. The vaccination site could induce pain, erythema, tenderness, and induration. Generally these are resolved in few days after vaccination. The spectrum of pandemic vaccine-associated cutaneous reaction is not known yet. We report a 26-year-old woman with multiple erythematous scaly macules scattered on the extremities and trunk. These lesions developed 3 days after injection of H1N1 vaccine (Greenflu-S®, Green Cross). The first lesion developed at the site of vaccination and spread to other sides of the body within a few days. She had a history of appendicitis 4 months ago. She was otherwise healthy and had no history of other inflammatory disorder on the involved area. She only mentioned that she had received a vaccination on the left deltoid area 3 days prior to the initiation of her primary rash. There was no personal and family history of psoriasis. Routine laboratory investigations were within normal limits except for antistreptolysin-O titer which elevated to 773 IU/mL (nl: < 200 IU/mL). But there was no definite history of streptococcal infection, such as pharyngitis. Histopathological examination of the biopsy specimen taken from the lesion showed neutrophilic collections within the parakeratotoic cornified layer, moderate acanthosis, diminished granular layer, elongation and edema of the dermal papillae, and dilated capillaries. The lesion was successfully treated with topical steroid and UVB phototherapy within 3 weeks. Until now we have not observed any relapse for 5 months. Although elevation of antistreptolysin-O titer was observed, association between streptococcal infection and psoriasis is not clear in this case. Because she had no definite history of streptococcal infection and the first lesion developed at the site of vaccination. We assume that pandemic vaccination is an important trigger for the onset of psoriasis in this case.

FC-10

PSORIASIFORM DRUG ERUPTION INDUCED BY ANTI-TUBERCULOSIS MEDICATION: POTENTIAL ROLE OF PLASMACYTOID DENDRITIC CELLS

PARK Jae-Jeong, LEE Jee-Bum, KIM Seong-Jin, LEE Seung-Chul, WON Young Ho, YUN Sook Jung

Departments of Dermatology, Chonnam National University Medical School

The psoriasiform drug eruptions induced by several drugs are similar to psoriasis, clinically and histopathologically. Cutaneous adverse effects of anti-tuberculosis therapies include morbilliform rash, urticaria, erythema multiforme, lichenoid drug eruption, and exfoliative dermatitis, while no psoriasiform drug eruption due to anti-tuberculosis medication has been reported. We experienced the first case of psoriasiform drug eruption in a 76-year-old man with pulmonary tuberculosis during treatment with isoniazid, ethambutol, rifampicin, and pyridoxine. After 4 months of therapy for pulmonary tuberculosis, he developed pruritic erythematous scaly papuloplaques on his trunk and extremities. He had no history of psoriasis. The skin lesions cleared after stopping the anti-tuberculosis medication. Histopathology showed psoriasiform dermatitis with scattered eosinophils, and immunohistochemistry, using confocal microscopy, revealed plasmacytoid dendritic cells among the inflammatory cells in the upper dermis. We suggest that psoriasiform drug eruption be included as an anti-tuberculosis medication-associated cutaneous eruption, and plasmacytoid dendritic cells may play a role in the mechanism.

FC-11

A CASE OF MYCOSIS FUNGOIDES EVOLVING FROM HCV INFECTION

KIM Dong Ha, KIM Hyun Kyu, PARK Juhee, YOO Kwang Ho, PARK Kui Young, LI Kapsok, SEO Seong Jun, HONG Chang Kwun

Department of Dermatology, College of Medicine, Chung-Ang University

The cause of mycosis fungoides is unknown, but some authors have suggested that it may belong to the group of primary cutaneous T cell lymphomas, that probably represent a hypersensitivity reaction to an infective agent, such as Human T-lymphotropic virus, Type I-like retrovirus, Ebstein-barr virus, Staphylococcus aureus etc. Hepatitis C virus infection has been associated with disorders in various organs other than liver, including the skin cutaneous necrotizing vasculitis, mixed cryoglobulinemia, and lichen planus. A 65-year old Korean man presented eczematous patches on nearly whole body, which had persisted for a period of 2 years. He was carrier of hepatitis C virus and after liver biopsy hepatocellular carcinoma was confirmed. Biopsies of the patch lesions on his occipital area and left arm showed atypical lymphocytes infiltration consistent with mycosis fungoides. We report here on a rare case of mycosis fungoides which may have developed following hepatitis C virus infection.

FC-12

THE EXPRESSION OF TH-17 RELATED CYTOKINES IN PSORIASIS

KIM Ji-Young, PARK Hyun-Jung, HAN Hyung-Jin
HWANG Young-Ji, KO Jong-Hyun, OH Byung Ho, LEE Yang-Won
CHOE Yong-Beom, AHN Kyu-Joong, YOUN Jai-Il[1]

Department of Dermatology, School of Medicine, Konkuk University,
Department of Dermatology, College of Medicine, Seoul National University[1]

Background: Psoriasis is a chronic inflammatory disorder of skin considered to be caused by dysregulation of Th1/Th2 immune response resulting in over expression of Th-1 cytokines. The immune system of human is maintained by balance of Th-1 and Th-2 immune regulation. If this regulation is disrupted, chronic inflammatory disorder such as rheumatoid arthritis or psoriasis can be developed by Th-1 dominance and atopic dermatitis or urticaria by Th-2. However, this model of pathogenesis in psoriasis is not enough to be fully understood. Recent understanding of Th-17 cells in immunology can build a new paradigm of pathogenesis in psoriasis. We investigated the expression of Th-17 related cytokines in psoriasis using immunohistochemistry.

Material and Methods: Skin tissues were obtained from psoriatic lesions of 20 psoriatic patients and healthy normal skins as controls. Expression of IL-17, IL-21, IL-22, IL-23 and also, IL-12 were investigated using immunohistochemistry. In case of positive samples, we determined the staining intensities and number of positive cells. Also, we evaluate the difference of staining intensities according to onset of disease: early< 4 weeks and late> 12 weeks. Also, we investigated the correlation between staining intensities and PASI score representing clinical severity of psoriasis.

Results: The expression of IL-17, 21, 22, 23 and IL-12 were increased in psoriatic tissue compared with normal control. Between early and late group, staining intensities of IL-12 and IL-17 were increased in early group. It was statistically significant. The cytokines showing linear correlation with PASI score were IL-17 and IL-22.

Conclusion: Psoriatic tissue shows strong expression of Th-17 related cytokines but not in normal tissue. IL-17 and IL-22 have linear correlation with PASI score. When comparing early and late group, the staining intensities of IL-12 and IL-17 were increased in early group.

FC-13

CLINICAL CHARACTERIZATION OF ELDERLY ONSET PSORIASIS

KWON Hyuck Hoon, KWON In Ho, YOUN Jai Il

Department of dermatology, College of Medicine, Seoul National University

Background: Our previous studies demonstrated clinical differences of early and late onset psoriasis. However, epidemiologic data and clinical characteristics of psoriasis occurring at geriatric patients have rarely been studied while its fraction increased as ageing population and often gave physicians difficulties for differential diagnosis.

Objective: Assessment of epidemiology and clinical features of psoriasis occurring over the age sixty, so called elderly onset psoriasis, based on clinical data

Methods: Among 4049 patients visiting our psoriasis clinic for last 27 years, patients were first divided between early (onset age before 30) and late onset psoriasis (onset age after 30) based on our previous study. Then, patients of late onset psoriasis were further divided by middle age onset group (onset age between 30 and 60) and elderly onset group (onset age over 60). Clinical characteristics of elderly onset psoriasis were compared with early age onset group and middle age onset group. We acquired the data both by physician's assessments and patients' responses.

Results: Elderly onset patients comprised 3.2% of total patients, 129 out of 4049. They have definitely shown less affected family history comparing with early and middle age onset groups ($p<0.05$). Disease activity decreased and patients' subjective sensation of disease course improved significantly comparing with middle age onset group ($p<0.05$). Body surface involvement, nail involvement demonstrated similar trends although not statistically significant ($p>0.05$). In clinical phenotype, proportion of guttate type and GPP type decreased remarkably while that of erythroderma type increased ($p<0.05$). There was a significant change in the body part of origin comparing with early and middle age onset groups ($p<0.05$). The proportion of scalp increased while that of knee-elbow and trunk decreased comparing with early and middle age onset groups ($p<0.05$). There was no significant changes in degree of pruritus on psoriatic skin lesions ($p>0.05$).

Conclusions: Elderly onset group demonstrated milder disease courses and some characteristic aspects comparing with middle age onset group. They had less family history, milder disease activity and better subjective symptom compared with middle age onset group. In addition, proportion of erythroderma type increased while that of guttate type decreased and no GPP type observed. As an origin of psoriasis, the proportion of scalp increased while that of knee-elbow and trunk decreased significantly compared with middle age onset groups.

FC-14

A STUDY FOR THE SKIN CANCER RISK IN KOREAN PSORIASIS PATIENTS TREATED WITH NARROWBAND UVB PHOTOTHERAPY

JO Seong Jin, KWON Hyuck Hoon, CHOI Mi Ra, YOUN Jai Il

Department of Dermatology, College of Medicine, Seoul National University

Narrowband UVB (NBUVB) phototherapy is widely used for the treatment of psoriasis all over the world including Asia. However, photocarcinogenic risk of NBUVB has not been studied for the patients with brown skin. This retrospective study was undertaken to compare the incidence of skin cancer in skin phototypes III-V Korean psoriasis patients treated with NBUVB and that in the normal population.

Total 358 psoriasis patients treated with NBUVB phototherapy at Seoul National University Hospital were analyzed. Using the Annual Report of National Cancer Registration and Statistics Program published in Korea, expected incidence and incidence rate ratio (IRR) of melanoma and non-melanoma skin cancer (NMSC) were calculated respectively. The patients were followed for 1,128 person-years. There was no case of melanoma during follow-up period (expected incidence 0.010). However, one patient developed basal cell carcinoma three months after the start of NBUVB phototherapy. For the NMSC, the expected incidence was 0.046 and the IRR was 21.7(95% confidence interval(CI) 0.6~124.8) without statistical significance.

We couldn't find any large increased skin cancer risk associated with NBUVB phototherapy in Korean psoriasis patients. Thus, NBUVB phototherapy using TL-01 lamps seems to be a safe therapeutic modality for Koreans as well.

FC-15

HIGH-CONCENTRATION (20 μg/g) TACALCITOL OINTMENT IN THE TREATMENT OF FACIAL PSORIASIS: AN 8-WEEK OPEN-LABEL CLINICAL TRIAL

CHOI Jee-Woong, CHOI Jung-Won, KWON In-Ho, YOUN Jai-Il

Department of Dermatology, College of Medicine, Seoul National University

Background: Facial psoriasis gives rise to considerable concern because of associated cosmetic problems and psychosocial distress. It requires a treatment approach other than topical corticosteroids which bear the risk of cutaneous adverse reactions. Recently, topical tacalcitol has been shown to be effective in psoriasis.

Objectives: The aim of this open-label single-center study is to investigate the efficacy and safety of high-concentration (20 μg/g) tacalcitol ointment (Bonalfa-high®, Teijin Pharma, Tokyo, Japan) in patients with facial psoriasis and evaluate clinical response according to the distribution of facial psoriatic lesions.

Methods: Thirty-seven patients were enrolled to this clinical trial. Tacalcitol 20 μg/g ointment was applied once daily to psoriatic lesions of the face over an 8-week period. Patients were also categorized into 3 subtypes according to facial lesion distribution. Efficacy was evaluated by the Area and Severity Index Score of Facial Psoriasis(facial PASI), and Physician's Global Assessment (PGA) score at weeks 2nd, 4th, and 8th week. The Subjective Global Assessement (SGA) was also determined at the end of the study.

Results: Thirty-three patients completed the clinical trial. Mean facial PASI of 33 patients at the baseline was 9.58 and after 8 weeks of treatment the mean facial PASI significantly decreased to 3.88. By using PGA, patients showed following response to treatment: clearance (n=1); excellent (n=6); good (n=16); fair (n=4); slight (n=5); no change (n=1). The response rate among the three facial psoriasis types showed no difference. In SGA, 27(81.9%) of the patients presented excellent (15.2%) or good (66.7%) effect with tacalcitol 20 μg/g ointment. No serious adverse reactions were observed.

Conclusions: This is the first clinical study with reporting a relevant therapeutic effect and favorable safety profile of tacalcitol 20 μg/g ointment in facial psoriasis. These results suggest that tacalcitol 20 μg/g ointment can be used as first-line treatment in patient

Key word: facial psoriasis, high-concentration tacalcitol

Tentative category: Topical therapy

FC-16

EXPRESSION OF TRPV1 AND TRPV3 IN PSORIASIS

KIM Jeong-Eun, YANG Ji-Hye, WON Chong-Hyun, CHANG Sung-Eun, LEE Mi-Woo, CHOI Jee-Ho, MOON Kee-Chan

Department of Dermatology, Asan Medical Center, College of Medicine, University of Ulsan

TRPV(transient receptor potential vanilloid) is one of the seven TRP channel superfamily. TRPV1, the best-known member of TRP channel superfamily, was originally found in sensory neuron and accounted for sensation and pain. Recently, they have been identified on various non-neuronal cell types including epidermal keratinocytes, fibroblasts, melanocytes and sebocytes in human skin. TRPV3, which share 40~50% homology with TRPV1, was also reported to be expressed in skin keratinocytes. Recent evidences suggested that activation of TRPV1 might be involved in cell proliferation, apoptosis and inflammatory cytokine release. In addition, TRPV1 expression was shown to be dramatically increased in epidermal keratinocytes of prurigo nodularis patients and normalized after successfully treating the characteristic nodular pruritic lesions with topical capsaicin. However, little is known about role of TRPVs in various other skin diseases.

We hypothesized that expression pattern of TRPV1 and TRPV3 could be different in psoriatic lesions and their activation could affect the cellular proliferation, apoptosis and inflammation in psoriasis. Furthermore their expression could be involved in pathophysiology of psoriasis.

In this study, we investigated the expression of TRPV1 and TRPV3 in psoriatic skin and non-lesional skin and confirmed the cellular response of human keratinocytes under their stimulation and inhibition. Finally, we analyzed the correlation of their expression and clinical phenotypes in the aspect of pruritus intensity and PASI score.

FC-17

CLINICAL EVALUATION AS TO TOPICAL THERAPY FOR NAIL PSORIASIS USING HIGH CONCENTRATION MAXACALCITOL LOTION; VITAMIN D_3 LOTION

YAHAGI Eiichiro, AKASAKA Emiko, HIRUMA Azusa, MABUCHI Tomotaka, IKOMA Norihiro, TAMIYA Shiho, MATSUYAMA Takashi, KUSAKABE Yoshiyuki, KURIHARA Seiichi, OZAWA Akira

Department of Dermatology, School of Medicine, Tokai University

Nail involvement occurs in to 10~50% of patients with psoriasis. Nevertheless, it is often so hard to treat for nail psoriasis. In addition, nail psoriasis is strongly disturbed to QOL with patient. Several reports were published as to treatments for nail lesion of patient with psoriasis using systemic therapies (i.e. cyclosporine, MTX, retinoid, PUVA therapy, biologics, and so on). However, it may be not prefer to treat with such serious therapies for nail psoriasis only. Of course, some results as to topical treatment for nail psoriasis were already published. However, the clinical efficacy of topical treatment of nail psoriasis is often disappointing. Then, clinical evaluation as to topical therapy for nail psoriasis using high concentration Maxacalcitol lotion; vitamin D_3 lotion was investigated. In this study, according to the compliance and adherence with patients, we explained "How to apply with the lotion for nail lesions" at each consulted day and asked patients strictly whether he applied the lotion to his nail lesions or not in everyday. And clinical findings, Nail PASI score, and so on in twenty-eights patients with psoriatic nail lesion were investigated for 24 weeks. The result showed significant improvement with treatment using the lotion for 20 weeks. The psoriatic nail lesions were evaluated with Nail PASI score under 2 before the treatment showed good response for the treatment. Especially, nail lesions without nail bed lesion or surroundings skin lesion were good response for the treatment with vitamin D_3 lotion topically.

FC-18

THE EFFECT OF CALCIPOTRIOL ON THE EXPRESSION OF HUMAN β-DEFENSIN-2 AND LL-37 IN CULTURED HUMAN KERATINOCYTES

KIM Dong Ha, KIM In Su, PARK Juhee, YOO Kwang Ho, KIM Beom Joon, KIM Myeung Nam, PARK Kui Young, LI Kapsok, SEO Seong Jun, HONG Chang Kwun

Department of Dermatology, College of Medicine, Chung-Ang University

Vitamin D has been reported to regulate innate immunity by controlling the expression of antimicrobial peptides (AMPs). We investigated the effect of calcipotriol on the expression of AMPs in human cultured keratinocytes. Keratinocytes were treated with lipopolysaccharide (LPS), TNF-α, Calcipotriol and irradiated with UVB, cultured, and harvested. To assess the expression of human beta defensin-2 and LL-37 in the control group, not exposed to any stimulants, the experimental group was treated with LPS, TNF-α, or UVB, and another group was treated again with calcipotriol; reverse transcriptase-polymerase chain reaction, Western blotting, and immunohistochemical staining were performed. In the experimental group treated with LPS, UVB irradiation, and TNF-α, the expression of β-defensin and LL-37 was increased more than in the control group and then decreased in the experimental group treated with calcipotriol. Calcipotriol suppressed HBD-2 and LL-37, which were stimulated by UVB, LPS, and TNF-α.

FC-19

ASSOCIATION BETWEEN PSORIASIS AND CARDIOVASCULAR RISK FACTORS AND METABOLIC SYNDROME

KIM Byung-Chul, CHOI Woo-Jin, PARK Eun-Joo, KWON In-Ho, KIM Kwang-Ho, KIM Kwang-Joong

Department of Dermatology, Hallym Medical Center, College of Medicine, University of Hallym

Psoriasis is an inflammatory disorder of the skin and in some patients the joints. Inflammatory cytokines are elevated in patients with psoriasis with increased secretion of Th-1 cytokine and inflammatory cytokine such as tumor necrosis factor (TNF). The metabolic syndrome is a combination of diabetes mellitus, hypertension, obesity and hyperlipidemia. Systemic inflammation occurs in patients with the metabolic syndrome, which is evident as a number of inflammatory markers such as TNF are often increased. Previous studies have demonstrated a possible association between psoriasis and diabetes mellitus, hypertension, myocardial infarction and heart failure and obesity.

This study is performed to demonstrate the association between psoriasis and cardiovascular risk factors, including metabolic syndrome. Data for case-control study were collected at Hallym university sacred heart hospital between September 2007 and September 2009. A total of 197 patients with psoriasis and 401 controls without psoriasis were enrolled in the study. There are no differences of age and sex between patients and controls. The relationship of psoriasis with cardiovascular risk factors (hypertension, diabetes, obesity, hyperlipidemia and smoking) and metabolic syndrome and cardiovascular diseases was surveyed and the absolute risk of major coronary events in patients with psoriasis was investigated using the Framingham risk score. As a result of investigation of serum high density lipoprotein (HDL), low density lipoprotein (LDL), triglyceride (TG) and total cholesterol, serum TG level of psoriasis was significantly higher than control, but others did not show significant difference. According to National cholesterol education program adult treatment panel III guide line for proper level of LDL cholesterol, the proportion of patients with psoriasis to need life style changes or drug therapy was calculated. We found a higher prevalence of cardiovascular diseases (4.6%, p=0.044), hypertension (32.5%, p=0.000), hyperlipidemia (22.3%, p=0.025), and metabolic syndrome (17.8%, p=0.021) in patients with psoriasis compared with controls. In logistic regression analysis for risk factors of metabolic syndrome in patients with psoriasis, old age (p<0.01), family history of psoriasis (p<0.05), and severity of psoriasis (p<0.05) were associated with metabolic syndrome. To maintain proper LDL level, patients with psoriasis to need life style changes and drug therapy were 25.3% and 11.7%, respectively.

Our results demonstrate a possible association between psoriasis and cardiovascular risk factors cardiovascular diseases, hypertension, hyperlipidemia, and metabolic syndrome) in Korea. In patients with psoriasis, old age, family history of psoriasis, and severity of psoriasis were related to metabolic syndrome. We also demonstrate that a substantial portion of patients with psoriasis needs life style changes and drug therapy to prevent cardiovascular events. Further studies will be necessary to establish the association between psoriasis and cardiovascular risk factors.

대한건선학회 임원 및 평의원

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직 책	성 명	소 속	전 화	팩 스	E-mail
회 장	최지호	울산의대	02-3010-3460	02-486-7831	jhchoy@amc.seoul.kr
총무이사	이주흥	성균관의대	02-3410-3549	02-3410-3869	joosoo@skku.edu
학술이사	최용범	건국의대	02-2030-5170	02-2030-5179	cyb@kuh.ac.kr
재무이사	송해준	고려의대	02-2626-1300	02-838-2359	hjsongmd@gmail.com
홍보이사	박철종	가톨릭의대	032-340-2115	032-340-2118	cjpark@yahoo.co.kr
감 사	김도원	경북의대	053-420-5833	053-426-0770	kimdw@mail.knu.ac.kr
	안규중	건국의대	02-2030-5181	02-2030-5179	kjahn@kuh.ac.kr
운영위원	윤재일	서울의대	02-760-2418	02-742-7344	jaiil@snu.ac.kr
	김광중	한림의대	031-380-3760	031-386-3761	kkj51818@hallym.or.kr
	김낙인	경희의대	02-958-8501	02-969-6538	nikim@khmc.or.kr
	김태윤	가톨릭의대	02-590-1497	02-594-3255	tykimder@catholic.ac.kr
평 의 원	김기호	동아의대	051-240-5435	051-253-0787	khkim@mail.donga.ac.kr
	김도원	경북의대	053-420-5821	053-426-0770	kimdw@mail.knu.ac.kr
	김명남	중앙의대	02-748-9898	02-6359-9573	mnkim@cau.ac.kr
	김상태	고신의대	051-990-6145	051-990-3041	stkim83@hanmail.net
	계영철	고려의대	02-920-5349	02-928-7540	yckye@korea.ac.kr
	노영석	한양의대	031-560-2280	031-557-4872	romio@hanyang.ac.kr
	신용우	단국의대	041-550-3903	041-550-3905	dkdm2081@dankook.ac.kr
	안규중	건국의대	02-2030-5170	02-2030-5179	kjahn@kuh.ac.kr
	원영호	전남의대	062-220-6681	062-222-4058	yhwon@chonnam.ac.kr
	오창근	부산의대	051-240-7337	051-245-9467	ckoh@pusan.ac.kr
	윤석권	전북의대	063-250-1975	063-250-1970	dermayun@moak.chonbuk.ac.kr
	윤태진	경상의대	055-750-8187	055-758-8106	yoontj@nongae.gsnu.ac.kr
	이규석	계명의대	053-250-7624	053-250-7626	franzes@dsmc.or.kr
	이석종	경북의대	053-420-5821	053-426-0770	seokjong@knu.ac.kr
	이애영	동국의대	054-770-8268	054-773-1581	lay5103@eulji.or.kr
	이은소	아주의대	031-219-5190	031-219-5189	esl@ajou.ac.kr
	이증훈	충남의대	042-220-7700	042-255-5098	jhoon@cnu.ac.kr
	조소연	서울의대	02-840-2190	02-831-2826	vickycho@hanmail.net
	함정희	이화의대	02-760-5139	02-743-0825	jhhahm@ewha.ac.kr
	황규왕	순천향의대	041-570-2270	041-578-2270	snolomas@hosp.sch.ac.kr