Primula, a possible source of airborne contact dermatitis

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30th Nordic Congress of Dermatology and Venereology

May 6–9, 2004, in Odense, Denmark
There is a wide choice of English-language dermatological congresses in Europe. How to choose those you wish to attend? In Bergen in 1998 it was decided to have English as the main meeting-language for the Nordic congresses in order to ease communication between the Nordic participants, and at the same time, it is also an invitation to dermato-venereologists from other parts of the world to consider participating. We encourage you to keep supporting the Nordic congresses because the Scandinavian countries have a long history of high quality clinical and experimental research in the many fields of dermatology and venereology. The Nordic congresses help us continuously to improve clinical care of our patients, teaching and research. Further, the regular “get together” of Scandinavian dermato-venereologists every third year in a smaller congress covering all aspects of our specialty stimulates friendship and professional interaction. The dermatological nurses are important partners in our daily clinical work helping us to improve patient care, teaching and information. Therefore, we are pleased to see that a number of dermatological nurses have decided to register and participate actively in the scientific programme. We welcome you in Odense and hope that you will have three fruitful days from May 6th to 9th, 2004.

Torbjörn Egelrud
General Secretary
Nordic Dermatological Association

Klaus E. Andersen
President
The 30th Nordic Congress of Dermatology and Venereology

Supplement No 7, 2004, Forum for Nordic Dermato-Venereology
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**Friday, 7 May 2004**

**8.30-10.00** | **Tonny Karlsmark, Denmark & Finn Gottrup, Denmark** |  
News in wound healing and influencing factors: how to apply in clinical practice  
News in treatment of venous leg ulcers  
News in treatment of inflammatory ulcers  
The costs of treatment of chronic venous leg ulcers with cultured human dermis and split skin grafting  
Topical therapy for peristomal pyoderma gangrenosum  

Gregor B.E. Jemec, Denmark & Christina Oprica, Sweden  
Acne morbidity and scarring  
Bacteria and acne  
Photodynamic therapy in the treatment of acne rosacea  
Isotretinoin monitoring and side-effects  
Associations of acne and psycho-social factors in a community study among adults  

**8.30-12.00** | **Kaare Weismann & Henrik F. Lorentzen, Denmark** |  
Dermatoscopy  

**10.30-12.00** | **Jan Faergemann, Sweden & Merete Hædersdal, Denmark** |  
Mechanisms behind antibiotic resistant bacteria. Staphylococcus aureus and resistance to fusidic acid  
Systemic antibacterial therapy of skin infections  
The role of microorganisms in atopic dermatitis  
Staphylococcus aureus clonal dynamics in children with atopic dermatitis  
The incidence of onychomycosis in toenails in diabetic patients  

Carsten Sand & Helle Kielberg Larsen, Denmark  
The drug eruptions that you may ignore and the drug eruptions that you should fear  
Drug eruptions in a population of patients with acute dermatologic skin conditions in a university hospital clinic in Copenhagen  
Drug-induced dermatitis  
Prevalence of acute cutaneous drug reactions at Odense University Hospital  
Methotrexate use and monitoring in Denmark and Switzerland – a benchmarking study  

**13.00-14.00** | **Carsten Bindslev-Jensen, Denmark** |  
Food allergy in skin disease  

**14.30-16.00** | **Olle Larkö, Sweden & Kari Saarinen, Finland** |  
Non melanoma skin cancer in organ transplant patients and the use of photodynamic therapy  
Practical aspects of photodynamic therapy in dermatological practice  
Different properties of aminolevulinic acid and Metvix<sup>®</sup> regarding selectivity to diseased skin and its relation to pain during illumination.  
Clinical experience with photodynamic therapy using Metvix<sup>®</sup> in the treatment of basal cell carcinoma  
Clinical experience with methyl aminolevulinate in patients with actinic keratosis  
Some examples of differential diagnoses  

Heli Hyry, Filand & Cato Mørk, Norway  
Androgenetic and diffuse alopecia  
Alopecia areata and scarring alopecia  
Hereditary hypotrichosis simplex of the scalp. Studies leading to underlying corneodesmosin-gene mutations  
Achrodermatitis enteropathica: genealogies and genetic epidemiology in Norway  
A sporadic case of congenital hypotrichosis treated with minoxidil  

**14.30-18.00** | **Jette Skiveren & Kris Powel, Denmark** |  
Welcome and introduction of the programme  
Oral and written patient information  
Oral and written information to youth about sexual transmitted diseases  
Patient information: failures and the need of new concepts  
What kind of knowledge generates patients’ actions? – an empirical study in relation to allergic contact dermatitis  

**16.30-18.00** | **Kristian Thestrup-Pedersen, Denmark** |  
Welcome and introduction  
What do we know today about the outcome of atopic dermatitis?  
Disease modification in the field of the atopic syndrome – what to learn from asthma  
Would a long-term control of eczema really lead to a better prognosis – how should we perform the study?  

Carsten Bindslev-Jensen, Denmark  
Classification and treatment of mastocytosis  
The pathophysiology of itch  
Antihistamines: present status and future options  

Annamari Ranki, Finland & Anders Strand, Sweden  
New and old parvoviruses in human skin  
HIV-patient care at a clinic for dermatology and venereology  
Is there a link between oropharyngeal and genital HPV infections?  
Once daily valaciclovir reduces transmission of genital herpes  

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**Saturday, 8 May 2004**

**8.30–10.00**  
**Knud Kragballe & Lars Iversen, Denmark**

- Psoriasis phenotype at disease onset  
- Microorganisms in intertriginous psoriasis: implications for topical therapy  
- Systemic treatment of psoriasis with fumaric acid esters: an overview  
- Update on biologicals  
- A clinical database on psoriasis patients treated with biological agents: report from a Nordic study group  
- No long-term changes in quality of life following climate therapy for psoriasis  
  
- **Anders Vahlquist, Sweden & Kristiina Turjanmaa, Finland**

  - Psoriasis phenotype at disease onset  
  - Microorganisms in intertriginous psoriasis: implications for topical therapy  
  - Systemic treatment of psoriasis with fumaric acid esters: an overview  
  - Update on biologicals  
  - A clinical database on psoriasis patients treated with biological agents: report from a Nordic study group  

**10.30–12.00**  

**Kristian Thstrup-Pedersen, Denmark & Carl-Fredrik Wahlgren, Sweden**

- Probiotics in the prevention and treatment of atopic dermatitis  
- The role of the early environment for expression of atopic dermatitis  
- Atopic dermatitis – a genetically complex disease  
- Topical staphylococcal enterotoxin enhances IgE production and allergen induced skin inflammation  
- A comparison of different criteria to diagnose atopic eczema in infancy  
- The atopy patch test in diagnosing of food hypersensitivity  
  
- **Inger Tranberg & Hanne Sylvester Hvid, Denmark**

  - Probiotics in the prevention and treatment of atopic dermatitis  
  - The role of the early environment for expression of atopic dermatitis  
  - Atopic dermatitis – a genetically complex disease  
  - Topical staphylococcal enterotoxin enhances IgE production and allergen induced skin inflammation  
  - A comparison of different criteria to diagnose atopic eczema in infancy  
  - The atopy patch test in diagnosing of food hypersensitivity  

**13.00–14.00**  

**Hywel Williams, UK**

- Evidence-based dermatology  

**14.30–16.00**  

**Håkan Mobacken, Sweden**

- Introduction  
- Compliance and support to the acne patient  
- Antibiotics in acne and rosacea  
- Pelvic inflammatory disease – tetrasyl in clamidia  
  
- **Ole & Christensen, Norway & Anne Hannoekela-Svahn, Finland**

  - UV treatment of ureamic pruritus  
  - Radiation dermatitis: prevention and treatment by topical agents, a review  
  - Skin signs of systemic disease. An interactive quiz session  

**16.30–18.00**  

**Kristian Thstrup-Pedersen, Denmark & Sakari Reitamo, Finland**

- Introduction to the symposium  
- What do I need for treating my patients with atopic eczema?  
- The course of atopic dermatitis – how bad is the prognosis?  
- Tacrolimus ointment (Protopic®) – the clinical evidence in 2004  
- Extended clinical experience with tacrolimus ointment (Protopic®)  

**Knud Kragballe, Denmark**

- Quality of life and coping in patients suffering from psoriasis  
- Evidence-based management of psoriasis  
- Patient education in atopic eczema - what do patients know and what do they want?  
- Aspects on allergic contact dermatitis  
- Clinical dermatology. A power vote session  

**Peter Bjerring, Denmark & Agneta Troilius, Sweden**

- Remodeling of the deep facial structures by CO₂ laser shrinkage of the SMAS during face-lifting procedures  
- Different applications of the 532 nm frequency doubled Nd: YAG laser  
- Non-ablative photo rejuvenation  
- Optical treatment of psoriasis using lasers and light sources  
- Delegating laser treatments in a dermatological laser practice  
- Laser treatment of facial port-wine stains  
- Treatment of perioral rhytids with CO₂ laser and intense pulsed light. A clinical controlled, randomized study with blinded evaluation  
- Retrospective study of laser and intense pulsed light treatment of hemangiomas
Tuesday, 10 May 2004

900–1230 Sakari Reitamo & Johanna Mandelin, Finland

Photo protection
Photo therapy
Photocarcinogenesis
Clinical experience in photodynamic therapy of non-melanoma skin cancer at the Norwegian Radium Hospital
Physical sunfilter increases the photostability of ketoprofen in a topical gel
Photodynamic treatment of oral lichen planus

Harald Møl, Norway & Hans Lomholt, Denmark

Non-gonococcal, non-chlamydial urethritis and cervicitis: the role of mycoplasma genitalium
Clinical aspects of mycoplasma genitalium infection
Vulvovaginal lichen planus – case reports
Longstanding vulval problems and dyspareunia reported by STD clinic visitors in Oslo

Sunday, 9 May 2004

900–1030 Hans Christian Wulf, Denmark & Ana Maria Solér, Norway

Imaging of skin diseases with optical coherence tomography P09.3
Skin imaging with optical coherence tomography
The hairless guinea pig as a model for treatment of cumulative irritation in humans P09.1
Mirtazapine for chronic urticaria
Vitamin-D status in patients with albinism – a case-control study P07.4
A light applicator for photodynamic therapy in the oral cavity P07.3
of an open surveillance study in 210 patients
Sun protection under extreme sun exposure during a high mountain climate therapy in common skin diseases – results
A new potent antioxidant and UVA-protective sunscreen formulation as prophylaxis against polymorphic light eruption P07.1

Petter Jensen Gjersvik, Norway & Gregor B.E. Jemec, Denmark

Establishment of teledermatologic dermoscopy service in Denmark – reducing morbidity from melanoma and disfiguring surgery of benign naevi PS16.6

1100–1230 Sakari Reitamo & Johanna Mandelin, Finland

New topical treatments PS17.1
New systemic treatments PS17.2
Teledermatology on the Faroe Islands PS17.3
Beneficial clinical and physiological effects of iloprost in patients with erythromelalgia PS17.4
Imiquimod treatment-response of lentigo maligna consecutively documented by dermoscopy PS17.5
Plasmapheresis treatment of chronic idiopathic urticaria PS17.6

Evy Paulsen, Denmark & Dag Sollesnes Holsen, Norway

Contact allergy to oxidized terpenes, the "perfumes of plants" PS18.1
Contact dermatitis from essential oils/aromatherapy PS18.2
Primula, a possible source of airborne contact dermatitis PS18.3
Contact allergy to the sesquiterpene lactone calocephalin PS18.4
Decreased MDRGN concentration in a product is counteracted by increased exposure PS18.5
An insect from California, or ....? PS18.6

POSTERS

Comparison of histamine release test and autologous serum skin test in the diagnosis of autoimmune chronic urticaria PS01.1
Tretament of toxic epidermal necrolysis with high-dose intravenous immunoglobulin along with intensive nursing care PS01.2
Serum-induced basophil histamine release (HR-Urticaria test) applied on a population suspected of having chronic idiopathic urticaria PS01.3
In-vivo assessment of the efficacy of an innovative anti-dandruff shampoo insubjects with scalp dermatitis PS02.1
No effect of spironolactone on von Zumbusch pustular psoriasis, a case report PS03.1
A double-blind, placebo-controlled study of a commercial Aloe vera gel in the treatment of slight to moderate psoriasis vulgaris PS03.2
Successful treatment with Infliximab in metastatic Crohn’s disease in childhood PS04.1
Symptomatic achrodermatitis enteropathica: a case report PS04.2
Interactions between skin-homing T-lymphocytes and peripheral mononuclear blood cells in patients with atopic dermatitis PS05.1
Incidence, severity and management of atopic dermatitis among children in Denmark during the 1990s PS05.2
Highlight on atopic predisposition: the Ichthyosis-Prematurity Syndrome PS05.3
Pattern of sensitisation to food and inhalant allergens in infancy PS05.4
A follow-up study of a topical treatment regime for atopic dermatitis PS05.5
Beneficial effects of a medical hand care system in different skin conditions and in hand eczema PS05.6
Beneficial effects of a urea containing medical face care system in patients with dry skin PS05.7
Foot care with a 10% urea emollient in diabetic and atopic patients: results of two clinical studies PS05.8
In-vivo assessment of the efficacy and tolerability of a topical Omega-6-fatty acid treatment in children with atopic dermatitis PS05.9
TNF-α induced CTACK/CCL27 (cutaneous T-cell attracting chemokine) expression in keratinocytes is controlled by NF-κB PS05.10
A cross-over study to compare cyclosporine and extracorporeal photopheresis in severe atopic dermatitis PS05.11
Treatment with local bath-PUVA therapy PS06.1
Educational needs and expectations of psoriasis patients. The patients’ perspective PS06.2
Education program on atopic dermatitis PS06.3
A new potent antioxidant and UVA-protective sunscreen formulation as prophylaxis against polymorphic light eruption PS07.1
Sun protection under extreme sun exposure during a high mountain climate therapy in common skin diseases – results of an open surveillance study in 210 patients PS07.2
A light applicator for photodynamic therapy in the oral cavity PS07.3
Systemic PDT in patients with widespread non-melanoma skin cancers PS07.4
Skin imaging with optical coherence tomography PS09.1
Imaging of skin diseases with optical coherence tomography PS09.3
# Program Overview

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<tr>
<td>Thursday, 6 May 2004</td>
<td>Opening Ceremony followed by Welcome Reception at Odense Railway Museum</td>
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<td>08:30 - 10:00</td>
<td>PS01 Wound healing &lt;br&gt; Chairs: Tommy Karlsmark &amp; Finn Gottrup, Denmark</td>
<td>PS02 Acne and rosacea &lt;br&gt; Chairs: Gregor BE Jemec, Denmark &amp; Cristina Oprica, Sweden</td>
<td>C01 Advances in dermatoscopy course (Part I) &lt;br&gt; Course Directors: Kaare Weismann &amp; Henrik F Lorentzen, Denmark</td>
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<td>10:00 - 10:30</td>
<td>Coffee &amp; Exhibitions</td>
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<td>C01 Advances in dermatoscopy course (Part II) &lt;br&gt; Course Directors: Kaare Weismann &amp; Henrik F Lorentzen, Denmark</td>
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<tr>
<td>10:30 - 12:00</td>
<td>PS03 Skin microflora and bacterial infections &lt;br&gt; Chairs: Jan Førgemann, Sweden &amp; Merete Hadersdal, Denmark</td>
<td>PS04 Drug reactions and interactions &lt;br&gt; Chairs: Carsten Sand &amp; Helle Køllberg Larsen, Denmark</td>
<td>C02 Oral and written patient information course (Part I) &lt;br&gt; Course Directors: Jette Skiveren &amp; Kris Povol, Denmark</td>
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<td>12:00 - 13:00</td>
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<td>13:00 - 14:00</td>
<td>PL01 Food allergy in skin disease &lt;br&gt; Carsten Bindslev-Jensen, Denmark</td>
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<td>14:30 - 16:00</td>
<td>CSS01 Recent developments in photodynamic treatment using methyl aminelevulinate Metvix® in non-melanoma skin cancer &lt;br&gt; Sponsored by Photocure &lt;br&gt; Chairs: Olle Larkö, Sweden &amp; Kari Saarinen, Finland</td>
<td>PS05 Hair disorders &lt;br&gt; Chairs: Heli Hyyry, Finland &amp; Cato Mork, Norway</td>
<td>C02 Oral and written patient information course (Part II) &lt;br&gt; Course Directors: Jette Skiveren &amp; Kris Povol, Denmark</td>
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<td>16:00 - 16:30</td>
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<td>16:30 - 18:00</td>
<td>CSS02 Disease modification - is that really an issue? &lt;br&gt; Sponsored by Novartis &lt;br&gt; Chair: Kristian Thesstrup-Pedersen, Denmark</td>
<td>CSS03 Mast cell diseases &lt;br&gt; Sponsored by Schering-Plough &lt;br&gt; Chair: Carsten Bindslev-Jensen, Denmark</td>
<td>PS06 Viral infections &lt;br&gt; Chairs: Anna Mari Rankö, Finland &amp; Anders Strand, Sweden</td>
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<td>08:30 - 10:00</td>
<td>PS07 Psoriasis update &lt;br&gt; Chairs: Knud Kragballe &amp; Lars Iversen, Denmark</td>
<td>PS08 Advanced paediatric dermatology &lt;br&gt; Chairs: Anders Vahlquist, Sweden &amp; Kristina Turjanmaa, Finland</td>
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| 10:30 - 12:00| PS09 Atopic dermatitis update  
  Chairs: Kristian Thestrup-Pedersen, Denmark & Carl-Fredrik Wahlgren, Sweden  
PS10 Dermatological nursing skills  
  Chairs: Inger Tranberg & Hanne Sylvester Hvid, Denmark  
C03 Dermatopathology course  
  Course Director: Ole Clemmensen, Denmark |
| 12:00 - 13:00| Lunch & Exhibitions                                                   |
| 13:00 - 14:00| PL02 Evidence-based dermatology  
  Hywel Williams, UK |
| 14:00 - 14:30| Coffee                                                                 |
| 14:30 - 16:00| CSS04 The role of antibiotics in dermatology and venereology  
  Sponsored by Galderma  
  Chair: Håkan Molbacken, Sweden  
PS11 Skin signs of systemic disease  
  Chairs: Ole B Christensen, Norway & Anna Hannukela-Svahn, Finland  
PS12 Diagnosis and management of bullous diseases  
  Chairs: Timo Reunan, Finland & Anette Bygum, Denmark |
| 16:00 - 16:30| Coffee & Exhibitions                                                  |
| 16:30 - 18:00| CSS05 New perspectives in atopic dermatitis: is steroid-free long-term disease control possible?  
  Sponsored by Fujisawa  
  Chairs: Kristian Thestrup-Pedersen, Denmark & Sakari Reitamo, Finland  
CSS06 Bridging practical and evidence-based dermatology  
  Sponsored by Leo Pharma  
  Chair: Knud Kragballe, Denmark  
PS13 Advances in laser therapy  
  Chairs: Peter Bjerring, Denmark & Agneta Troilus, Sweden |
| 19:30         | Congress Dinner at Radisson SAS H.C. Andersen Hotel                    |
| Sunday, 9 May 2004 |                                                     |
| 08:30 - 10:00| PS14 Photodermatology & photoprotections  
  Chairs: Hans Christian Wulf, Denmark & Ana Maria Soler, Norway  
PS15 Venereology in Scandinavia  
  Chairs: Harald Moi, Norway & Hans Lomholt, Denmark  
PS16 Cutaneous oncology  
  Chairs: Peter Jensen Gjersvik, Norway, & Gregor BE Jemec, Denmark |
| 10:00 - 10:30| Coffee & Exhibitions                                                  |
| 10:30 - 12:00| PS17 New & emerging therapies  
  Chairs: Sakari Reitamo & Johanna Mandelin, Finland  
PS18 Contact dermatitis from cosmetics and plants  
  Chairs: Evi Pouken, Denmark & Dag Sollesnes Holsen, Norway |
| 12:00         | Closing Remarks & Awards Ceremony                                      |
PL01

FOOD ALLERGY IN SKIN DISEASE

Carsten Bindslev-Jensen
Department of Dermatology, Odense University Hospital, Odense, Denmark

Several skin diseases can be elicited and/or exacerbated by concomitant food allergy. This is especially true for acute urticaria, which is the most prevalent single symptom of food allergy and for a proportion of children with atopic dermatitis. Although recent research has demonstrated that infants and children with atopic dermatitis often present with low level and unspecific sensitization to foods (measured as specific IgE in serum), investigations performed according to European Academy of Allergology and Clinical Immunology Guidelines including oral food challenges has demonstrated a close relationship between food allergy and atopic dermatitis in children. Other diseases such as contact urticaria are in some cases associated with food allergy whereas chronic urticaria only rarely is associated.

PL02

EVIDENCE-BASED DERMATOLOGY

Hywel Williams
University Hospital, Queen’s Medical Centre, Nottingham, UK

The phrase evidence-based dermatology (EBD) is becoming increasingly popular, yet it is a term that is frequently abused and misunderstood. Evidence-based dermatology may be defined as ‘the conscientious, explicit and judicious use of current best evidence about the care of individual patients with skin disease’ (1). This definition implies an active process that requires learning, practice and reflection. Perhaps the most important phrase in the definition is ‘the care of individual patients’. EBD is not an intellectual debate, but a way forward for improving dermatology patients’ welfare at the bedside or in the clinic. Contrary to some beliefs, EBD does not tell dermatologists what to do, and its prime purpose is not to cut costs. EBD should not be reviewed as a restriction on clinical freedom if this is defined as the opportunity to do the best for your patients, as opposed to making the same mistakes with increasing confidence. The practice of EBD involves 4 main steps of: 1) Asking an answerable, structured question, 2) Searching for the best external information, 3) Critically appraising that information, and 4) Applying the information back to the patient in a way that empowers them to become involved in decision making (2). Systematic reviews such as those produced by the Cochrane Skin Group are important sources of information for informing evidence-based decisions in dermatology (www.nottingham.ac.uk/~muzd).

In one sense, we have all been practising evidence-based dermatology to varying degrees. The only change is that it is becoming more conscious and explicit. Additional skills are required in order to become competent in the 4 steps. Evidence-based medicine is not a tool to impress or get ahead of your colleagues. It is a way of trying to help your patients.


PS01.1

NEWS IN WOUND HEALING AND INFLUENCING FACTORS: HOW TO APPLY IN CLINICAL PRACTICE

Finn Gottrup
University Center of Wound Healing, Department of Plastic Reconstruction Surgery, Odense University Hospital, Odense, Denmark

Introduction: Wound problems have existed as long as man has been on Earth, but knowledge of the pathophysiological background for the wound healing process and how this is influenced by external factors has especially been explored in the last decade.

Basic science: Our knowledge has improved through an increasing understanding of the internal growth factors, cytokines and proteolytic enzymes, but also understanding of the influencing external factors has been enhanced. Gene therapy and use of stem cells are areas with increasing interest in wound healing.

Clinical practice: It has been difficult to apply the news from basic science into clinical practice. Only a few of the new achievements from basic research have been established in daily clinical practice. Regimens with proven effect on the wound healing process are: debridement, moist wound healing, infection control (by the use of oxygen, warmth, iodine and silver) and Topical Negative Pressure (VAC-system). Oppositely has the use of growth factors and artificial skin in clinical practice still not gained full acceptance everywhere. Recently promising results in the treatment of chronic wounds, have been shown for inhibitors against neutrophil functions and neutrophil products (metalloproteinases) and for stem cells from bone marrow, which has shown to increase angiogenetic activity in ischemic legs of wound patients.

Beside these specific topics the treatment of patients with problem wounds has been improved by a better organisation of the clinical work.

Conclusion: News is increasingly coming from research in the area of wound healing. In spite of difficulties with the implication of these findings in clinical practice, the treatment of patient with problem wounds has improved significantly the last decade.

PS01.2

NEWS IN TREATMENT OF VENOUS LEG ULCERS

Karsten Fogh
Department of Dermatology, Leg Ulcer Clinic, Aarhus University Hospital, Aarhus, Denmark

Venous insufficiency and venous leg ulcers are common conditions with high impact on the health care system. Recognition of the condition is important and is very often neglected. However, early and proper diagnosing of venous insufficiency is important in order to initiate proper preventive measures and to initiate treatment when needed. Diagnosing of venous insufficiency is based on patient history, family history, symptoms and clinical appearance. However, objective measures are needed in order to quantify the degree of venous insufficiency and apart from
measuring the ankle/brachial index, the use of duplex scanning has recently been established as a routine investigation. This method is fast, accurate and non-invasive. Treatment of oedema include compression bandage or compression stockings and recently the four-layer bandage system has been found as effective as the Unna’s boot and we have recently found that use of the four-layer bandage system can lead to a significant reduction in use of both material and a reduction of the time used by the nursing staff for bandage changes. Recent advances in wound bed preparation include silver-containing dressings and focus has been addressed on wound pain assessment. More complicated cases with slow healing are treated by more sophisticated methods such as vacuum assisted closure (VAC) and a few cases can benefit from hyperbaric oxygen (HBO) treatment. News in the treatment of venous valvular incompetence include valvular reconstruction and sub-fascial endoscopic perforator vein surgery (SEPS) and these techniques seem promising in the causative treatment of venous leg ulcers.

**PS01.3**

**NEWS IN TREATMENT OF INFLAMMATORY ULCERS**

Tommy Karlsmark
Department of Dermatology and Venereology, Bispebjerg Hospital, Copenhagen, Denmark

Inflammatory ulcers can be caused by vasculitis or pyoderma gangraenosum.

Vasculitis comprises a group of disorders that combine segmental inflammation with necrosis of the blood vessels. The vascular damage is caused by an immunological and/or inflammatory mechanism. The symptoms are based on criteria that include different kind of illnesses with involvement of specific organs, involvement of small, medium or large vessels with or without histologic granuloma and laboratory abnormalities. Necrotizing vasculitis may be primary disease, may develop in a feature of systemic disorder or may be idiopathic. The classical vasculitis in the skin is the cutaneous necrotizing venulitis and leucocytoclastic vasculitis. Pyoderma gangraenosum is a destructive necrotizing ulceration of the skin. The treatment of immunological ulcers can be divided into three or more parts. Treatment of vasculitis caused by antigen is removal of the antigen, treatment of an underlying disease and finally treatment of the vasculitis. Treatment of necrotizing vasculitis consists of prevention of the deposition of immune complexes, suppression of the inflammatory response, modulation of the underlying immunopathological mechanism and local therapy. Tumor necrotizing factor (TNF alfa) is the key molecule in aetiology to pyoderma gangraenosum. Treatment with TNF alfa antibodies has been used in a few cases with a very good result. The literature of the new treatment of the immunological ulcers will be given.

**PS01.4**

**THE COSTS OF TREATMENT OF CHRONIC VENOUS LEG ULCERS WITH CULTURED HUMAN DERMIS AND SPLIT SKIN GRAFTING**

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Background: Chronic leg ulcers occur in 1–2% of adult Western population. They cause pain, affect quality of life and produce costs both to the patient and community. Venous leg ulcer treatment options include conservative and surgical approaches but their total costs have not been thoroughly evaluated.

Methods: Patients with hard-to-heal chronic venous leg ulcers treated in our University department were analysed. They were treated either with traditional split skin grafting (SSG) or with tissue-engineered human dermis (DG; Dermagraft™). The data on overall costs was collected prospectively from randomized patients. Total time used in the treatment processes by the doctors and nurses was measured. Their salaries and administration costs as well as the hospital bed and out-patient costs were calculated. In addition, the costs of the Dermagraft™, all bandages and other supplies were taken into account.

Results: The total cost of DG treatment was €1486. This included a piece of Dermagraft™ used 4 times at 2 week intervals on an out-patient basis. The total cost of SSG treatment was €1519 requiring one week treatment in a hospital ward. In the DG group 64% of the total costs derived from the graft and bandages. In the SSG treatment 7% of the total costs were from supplies and 93% from the cost of in-patient hospital care.

Conclusion: The present study shows that the total costs of DG and SSG treatment modalities are equal in our University Hospital setting. The cost-effectiveness of these two venous leg ulcer treatment modalities needs further prospective analysis where clinical efficacy is taken into account.

**PS01.5**

**TOPICAL THERAPY FOR PERISTOMAL PYODERMA GANGLEROSUM**

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Pyoderma gangrenosum (PG) is a rare condition. Patients with ostomy have a relatively higher risk of PG affecting the skin around stoma sites. Literature on the management of parasistol PG is sparse. In this study we report our experience with topical corticosteroid therapy for 14 consecutive cases of peristomal pyoderma gangrenosum (PPG). The majority of the cases presented were managed with simple topical corticosteroids occasionally in combination with a change of bandage. In 8/14 (57%) cases ulcer resolution was achieved within 3 months with topical treatment alone or topical treatment plus a change of bandage to a silicone-based product applied directly to the wound under the normal base plate of the stomabag. In one case ulcer resolution was achieved with bandage alone. In four cases systemic treatment and/or surgery was necessary before healing occurred. In all cases PPG healed following therapy. Our experience suggest that PPG is neither as uncommon as previously suggested nor as resistant to treatment. The cases presented suggest that a significant proportion of PPG can be managed by topical treatment alone.
Acne morbidity encompasses a range of problems of both physical and a psychosocial nature. These problems may go unnoticed in this otherwise healthy population, and lead to long-term disability. In addition even mild acne can cause scarring. The scarring is not only associated with acne morbidity, but presents an independent vehicle for continued morbidity if the scars are e.g. atrophic or hypertrophic. A review of the treatment options for acne scars will be given.

BACTERIA AND ACNE

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Acne vulgaris is a multifactorial disease in which propionibacteria, i.e. Propionibacterium acnes are thought to play an important role in the pathogenesis of inflamed lesions. Antibiotics are widely prescribed for acne therapy and the incidence of antibiotic resistance of P. acnes was gradually increasing all over the world. The first objective of this study was to document the prevalence of antibiotic resistance (tetracycline, erythromycin, clindamycin and trimethoprim-sulfamethoxazole) among isolates of P. acnes in patients from the Stockholm area with moderate to severe acne who were currently being treated with systemic antibiotics during the last 2–6 months. The second objective was to determine the genomic diversity and the epidemiological relatedness among resistant P. acnes strains using pulsed-field gel electrophoresis (PFGE), which is considered as the "golden standard" among epidemiological typing methods. 100 antibiotic-treated patients and 30 non-antibiotic-treated patients participated in the investigation. The susceptibility of P. acnes was determined by the agar dilution method. In the group of patients treated with antibiotics, resistant P. acnes strains were recovered in 37%, while in the non-antibiotic group of patients the incidence of resistant strains was 13%. There was a genetic diversity among the P. acnes strains. Forty-four different patterns of DNA digests were detected and two predominant clones were found. Antibiotic resistance in P. acnes presents a worldwide problem for the treatment of acne. Sweden is well-known for a very restrictive policy regarding prescription of antibiotics, but still P. acnes resistance has emerged.

PHOTODYNAMIC THERAPY IN THE TREATMENT OF ACNE ROSACEA

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Rosacea is a common disease, with an estimated prevalence of 5–10%. Conventional treatment with topical and systemic antibiotics is mostly successful, but recalcitrant cases require intensified therapy. We report a 51-year-old woman with a 4-year history of rosacea, located to forehead, cheeks, chin and eye involvement. Clinically the rosacea was characterized by papulopustules, dark-red lesions, periorbital edema and conjunctivitis. Previous treatment consisted of tetracycline, and various topical treatments. Topical treatment was ineffective, and tetracycline was temporarily effective but had no long-term effect. The patient received treatment with photodynamic therapy (PDT) two times during two weeks at the left side of the face. After 4 weeks the treated skin was cleared. In the remainder of the face, which was only exposed to the light and not the 5-aminolevulinic-acid, rosacea was unaffected. Subsequently the whole face was treated with one session of PDT and cleared completely. There has been no relapse during a 3 month follow up. Our observation suggests that PDT-ALA may play a role in future treatment of select cases of rosacea.

ISOTRETINOIN MONITORING AND SIDE-EFFECTS

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Acne vulgaris is a common and disfiguring disease usually found among young adults. In more severe cases there is a need of systemic treatment. Isotretinoin is a highly effective drug in the treatment of acne, although a number of possible side-effects exist. Isotretinoin is potentially teratogenic, therefore women of childbearing potential must use an effective form of contraception for at least 1 month before, throughout and for at least two menstrual cycles following discontinuance of treatment. Common adverse effects resemble hypervitaminosis A and include mucocutaneous adverse events, such as dry or peeling skin, epistaxis, dry or irritated eyes, cheilitis and rash or erythema of the face. Less common side effects include headache, corneal opacities, pseudotumour cerebri, inflammatory bowel disease, anorexia, alopecia, mus-cle and joint pains and psychiatric events, especially depression. These effects are all reversible on the dis-continuation of therapy. Skeletal hyperostosis has been observed in patients receiving long-term treatment with isotretinoin. Lipid abnormalities (elevated triglyceride values, high-density lipoproteins) eventually causing pancreatitis, elevated liver enzymes and hepatitis occur. Because of the severe adverse effects thorough monitoring of the patients is needed including liver- and kidney function, plasma lipids, serum cholesterol, blood glucose and pregnancy test before and every month during treatment. In case of pregnancy, termination is recommended due to the high likelihood of malformations.
PS02.5

ASSOCIATIONS OF ACNE AND PSYCHO-SOCIAL FACTORS IN A COMMUNITY STUDY AMONG ADULTS
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Objective: The aim of this study was to describe the associations of acne with psycho-social factors at a population level.

Materials and Methods: The method used was a questionnaire on self-reported skin complaints. It was previously developed and validated. The design of the study was cross-sectional. 40888 in the city of Oslo, in age groups 30, 40, 45, 60 and 75 received a postal questionnaire. It included questions on self-reported health, and psycho-social factors as mental distress, negative life events and social network. 18770 responded, thereby obtaining a response rate of 46%. A non-responder study has been conducted.

Summary of Results: In this urban population the prevalence of self-reported acne was 3.5% among adults, though highest for individuals 30 years (8.8%). Among the mental distressed 7.3% reported acne compared to 3.1% of the non mental distressed. In a logistic regression model when adjusting for age, gender, marital status, ethnicity, socio-economic factors, the odds ratios for acne was 1.45 (1.10; 1.92) when having experienced more than two negative life events and 2.19 (1.59; 3.01) when mentally distressed.

Conclusion: This study shows a strong association between acne and psycho-social factors among adults at a population level. Further research should explore possible underlying mechanisms.

PS03.1

MECHANISMS BEHIND ANTIBIOTIC RESISTANT BACTERIA. STAPHYLOCOCCUS AUREUS AND RESISTANCE TO FUSIDIC ACID
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Resistance in bacteria can be defined as when the antibiotic minimal inhibitory concentration is higher than the concentration at the focus of infection. Bacterial resistance has compromised the effectiveness of antibiotics and resistance is one of the major problems in medicine today. Resistant bacteria can occur by mutation, but more commonly resistance emerge from the ability of bacteria to pick up resistance genes by transformation, transduction or conjugation. The acquired genes might code for: 1) efflux pumps 2) enzymes degrading the antibiotics 3) decreased binding of antibiotics to the target or 4) decreased permeability of the bacteria.

In dermatology the most important resistance problems are found in Staphylococcus aureus. Penicillin was introduced in the early 1940s and, as early as 1942, penicillin-resistant staphylococci were recognized. By the late 1960s, more than 80% of staphylococcal isolates were resistant to penicillin. Methicillin, a semisynthetic penicillinase-resistant penicillin, was introduced in 1961 and the introduction was rapidly followed by reports of methicillin-resistant isolates. In the following years resistance in S. aureus isolates have been reported to a great variety of antibiotics as aminoglycosides, TMP-SMZ, quinolones, macrolides, glycopeptides and oxazolidinones. In the last years resistance against antibiotics used in dermatology as fusidic acid and mupirocin have emerged. An overview of the mechanisms of resistance in S. aureus will be given, with special emphasis on fusidic acid.

PS03.2

SYSTEMIC ANTIBACTERIAL THERAPY OF SKIN INFECTIONS
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Skin infections caused by staphylococci aureus are relatively common, but the indication for systemic antibiotic treatment varies. Widespread impetigo contagiosa can be caused by a combination of streptococci and staphylococcus aureus and Isoxazolyl-Pc or cephalosporins (Cefadroxil) have in independent controlled studies been shown to have a good clinical effect. In case of allergy, Clindamycin is the first choice. During the last years a clonally spread of Staphylococcus aureus resistant to Fusidin acid and causing impetigo has been detected in Sweden. The most common bacteria in skin and soft tissue infections in which systemic antibiotics are used is Streptococcus pyogenes. Erysipelas is usually treated with PCV, PCG or in case of known pc-allergy with Clindamycin. Erysipelas in association with an open wound or a lymphangitis emerging from a wound is treated with Isooxazolyl-Pc or a cephalosporin (Cefadroxil). It has also recently been confirmed that streptococcal throat infections can not only cause exacerbation of guttate psoriasis but also chronic plaque psoriasis. The invasive deep tissue infections by group A streptococci, such as streptococcal toxic shock syndrom and necrotizing fasciitis are life threatening. In serious cases Imipenem is often chosen as an alternative to intra venous high dose PCG. Combinations with Clindamycin are common, since Clindamycin inhibits the toxin production by the streptococci. In cases of fast developing extensive tissue damage early surgical intervention is essential.

PS03.3

THE ROLE OF MICROORGANISMS IN ATOPIC DERMATITIS
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Atopic dermatitis (AD) is a chronic, inflammatory skin disease, which may exacerbate due to colonization of the skin with bacteria, viruses and fungi.

Staphylococcus aureus plays a pivotal role in disease control due to secondary infection and exotoxins acting as super-
antigens or allergens. The yeasts Malassezia and Candida are saprophytic fungi of skin and mucous membranes, which may aggravate AD due to allergic reactions. Viral infections, especially herpes simplex virus, are important factors as well.

The mechanisms of bacteria, fungi and viruses as aggravating factors of AD will be evaluated. Furthermore, the outcomes of antibiotic and antifungal treatments will be reviewed from an evidence-based point of view in order to identify effective treatments for AD.

PS03.4
STAPHYLOCOCCUS AUREUS CLONAL DYNAMICS IN CHILDREN WITH ATOPIC DERMATITIS
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Staphylococcus aureus virulence factors acting as super antigens or toxins potentially aggravate the eczema in children with atopic dermatitis. The production of virulence factors differs among strains of S. aureus and the colonization pattern over time in single patients has not been well characterized and compared to the eczema activity. Therefore the clonal dynamics of S. aureus strains colonizing 11 children with atopic dermatitis were followed for a year with swaps taken every 6 weeks from active eczema, anterior nose, axillae and perineum. The degree of eczema was scored using SCORAD and individual bacterial clones identified by pulsed field gel electrophoresis. All clones were examined for the super antigens TSST-1, SEA, SEB, SEC, and the toxins α-toxin, β-toxin, epidermolytic toxins A and B, and grouped according to the four agr quorum-sensing groups. The colonization patterns detected among the children were found to be highly variable with a few children rarely colonized, some children constantly harbouring a single clone, and some children dynamically colonized by up to six different clones. In general clones persisted or changed independent of local and systemic antibiotic treatments. Staphylococcal colonization was associated with a higher SCORAD value. However the eczema activity varied during periods of no colonization or continuous colonization by a single clone pointing towards additional factors affecting the eczema severity. Interestingly, no significant exacerbation of eczema was detected during colonization with clones producing super antigens or toxins indicating that these may be of minor importance. In contrast, among four children a sudden shift in agr group of colonizing clones was associated with a significant exacerbation of the eczema at the time of clonal change.

PS03.5
THE INCIDENCE OF ONYCHOMYCOSIS IN TOENAILS IN DIABETIC PATIENTS
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Introduction: Diabetic patients have an increased risk of infections. This study focus on the incidence of toenail onychomycosis in diabetic patients.

Methods: So far 114 patients have been recruited from in- and outpatient clinics and evaluated by clinical and mycological examinations (microscopy and culture). Nail scrapings were taken from the most deformed nail or, if all nails appeared normal, from the first right toe.

Results: Patients had diabetes type 1 (30%) and type 2 (70%) (mean duration 14.3 years, mean age 60.3 years, 71% males). By clinical examination it was found that 60% of the patients had abnormal nails (hyperkeratosis, unguis incarnatus and onycholysis), 72% peripheral neuropathy, 30% had no palpable foot pulses and 20% had amputated at least one toe. Overall, 30.7% (n= 35) of the diabetic patients had toenail onychomycosis. Dermatophyte infections represented 88.6% (n=31) of the infections. Following species were identified by culture: T. rubrum (n= 6), T. mentagrophytes (n= 3), T. tonsurans (n= 1) and 21 by microscopy only. Yeast represented 11.4% (n=4) of the infections and following species were identified by culture: C. krusei (n= 2), C. albicans (n= 1), C. glabrata (n= 1).

Conclusion: Diabetic patients have a higher occurrence of onychomycosis (30.7%) than the background population, which has an estimated incidence of approximately 5%.
from general practitioners (GP’s) in the city of Copenhagen. Referral information was not noticed in 35 (8%) of the 428 patients.

The most prevalent final diagnoses were: unspecified eczema (10.7%), drug eruptions (6.3 %), psoriasis (6.3%), atopic dermatitis (5.6%) seborrheic dermatitis (3.5%), seborrheic keratosis (3.3%) toxic contact dermatitis (3.0%), urticaria (3.0%), malignant skin tumours (2.5%), candidiasis (2.5%), seborrheic eczema (2.1%), stasis dermatitis (2.1%) and erysipelas (2.0%). That drug eruptions are one of the leading causes of acute referral conditions probably reflect the proximity to other hospital settings, where a large number of patients receive several systemic medicaments for various conditions. It is concluded that the disease pattern in an acute outpatient dermatologic university clinic is markedly different from that seen among private practising dermatologists and GP’s.

**PS04.3**

**DRUG-INDUCED DERMATITIS**

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Various types of dermatitis induced by drugs will be reviewed, including irritant and allergic contact dermatitis, fixed drug eruption and popular dermatitis. Allergic contact dermatitis is the most commonly described drug-induced dermatitis resulting from the application of drugs on the skin. Drug used topically as well as systemically may cause systemic contact dermatitis. Diagnostic methods will be reviewed with emphasis on patch testing, the most commonly employed test method. Based on the literature and the personal experience of the author, clinical examples of the most common types of reactions and some newly reported reaction patterns will be discussed.

**PS04.4**

**PREVALENCE OF ACUTE CUTANEOUS DRUG REACTIONS AT ODENSE UNIVERSITY HOSPITAL**

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**Introduction:** Acute cutaneous drug reactions (ACDR) have been reported to be frequent in hospitalised patients in e.g. France or US (2% and 2.2%, respectively). No data are available from the northern part of Europe.

**Methods:** Cross-sectional study with four unannounced visits to all clinical departments of our hospital during one year in order to find all in- and out-patients with possible drug-associated skin symptoms lasting <14 days. Eligible patients were offered investigation for drug allergy with clinical examination by a dermatologist, blood sampling, and skin biopsy at inclusion, and patch tests, skin prick tests, intradermal tests and drug challenge tests >4 weeks later. Finally an imputability analysis was performed for each drug.

**Results:** A total of 131 patients were referred for evaluation. 57 fulfilled inclusion criteria. 40 were included, 17 did not wish to participate. 16 patients underwent the full investigation programme whereas 20 only participated in parts of the investigations. Four died prior to elective investigations. The overall prevalence of ACDR was 0.3%. The most common reactions were maculo-papular rash and urticaria. Further a number of single reactions were found (e.g. DRESS or TEN). The most frequent culprit drugs were ß-lactam antibiotics followed by chemotherapeutics.

**Conclusions:** The prevalence found in our study is lower than reported by others. Variations in the pharmaco-therapeutical cultures between countries may be the explanation. The most common clinical reactions observed in the present study are similar to those reported in other studies.

**PS04.5**

**METHOTREXATE USE AND MONITORING IN DENMARK AND SWITZERLAND - A BENCHMARKING STUDY**

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**Introduction:** Benchmarking is a comparison of local or individual practice in different places or individuals, and is an important tool for quality assurance. The objective of the study was to identify possible differences in the use of low-dose methotrexate (MTX) among dermatologists in Denmark and Switzerland. Low-dose MTX is well tolerated by most patients, but because of possible serious side effects it is necessary to monitor the treatment closely.

**Methods:** An anonymous questionnaire was sent to all members of the associations of dermatologists in Denmark (DK) and Switzerland (CH). A total of 106 practicing specialists and 40 dermatologists working in hospitals participated in the study.

**Results:** 88% of the specialists used MTX. PIIINP was used to monitor fibrosis by 5.3% in DK and 4% in CH. Adequate female contraception was required by 100% in CH and 57% in DK.

**Conclusions:** Significant differences appear to exist in the routine use of low-dose MTX in DK and CH. These differences appear in spite of the facts that evidence-based guidelines have been available for some years. It is suggested that differences in local patterns of use may be modified to reflect contemporary evidence-based guidelines better. It is also suggested that biological resilience may compensate for local differences of use and that additional data therefore are necessary before core quality criteria can be identified. The necessary data may be provided from national or international databases describing the outcomes of routine uses of drugs.

**PS05.1**

**ANDROGENETIC AND DIFFUSE ALOPECIA**

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Androgenetic alopecia is a progressive patterned hair loss. A polygenetically inherited susceptibility is a prerequisite,
and androgens initiate and perpetuate the hair loss. The androgens shorten the duration of the anagen growth phase and miniaturise the hair follicle. For men the diagnosis is usually obvious. Women commonly present early with diffuse hair loss and other differential diagnoses may need to be considered, including diffuse alopecia with excessive telogen hair shedding. Women should be routinely screened for thyroid abnormalities or iron deficiency causing telogen effluvium. Androgen assays should be reserved for those with clinical signs of hyperandrogenism. A drug and diet history is important. Intercurrent hair shedding may reveal or amplify the pattern of a previously unrecognised androgenetic alopecia. Prognosis for hair regrowth is generally good if the cause of the telogen hair shedding can be found and eliminated. Emotional and social support is important and ensuring reasonable expectations when new treatment modalities are initiated. Monitoring of hair loss and regrowth is difficult. Scalp photographs are recommended at 6-12 month intervals. The drawback of current medications is that they are limited cosmetic effect and work for about as long as they are used. Managing disappointments remains unfortunately a large part of caring for anyone with androgenetic alopecia.

**PS05.2**

ALOPECIA AREATA AND SCARRING ALOPECIA

**Heli Hyry**

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Severe forms of both alopecia areata and scarring alopecia may lead to permanent hair loss of large areas. Fortunately, even untreated alopecia areata is usually reversible. Alopecia areata is considered to be an autoimmune disease. Mild alopecia areata (less than 40% of scalp area affected) can be treated with topical or intralesional corticosteroids. Oral corticosteroids or immunotherapy with a topical sensitizer such as diphenycyclopropenone are sometimes successful in severe alopecia areata. However, their effects are often transient. The side effects of long term therapies must be considered.

Scarring alopecia is a group of diseases that lead to follicular destruction. It is difficult to classify and difficult to treat. It can be classified to primary and secondary scarring alopecia. In primary scarring alopecia the follicular unit is the target of the disease. In contrast, in the secondary scarring alopecia the follicle is a bystander destructed by a non-follicular disease. Another classification consists of partly overlapping conditions: central centrifugal scarring alopecia, lichen planopilaris, lupus erythematosus and acne keloidalis. The treatment of difficult scarring alopecia may consist of corticosteroids, minoxidil, hydroxychloroquine, antibiotics, immunosuppressive drugs, dapsone, retinoids, thalidomide, laser treatment, excision, radiation or hair transplantation either alone or in combinations.

**PS05.3**

HEREDITARY HYPOTRICHOSIS SIMPLEX OF THE SCALP. STUDIES LEADING TO UNDERLYING CORNEODESMOSIN-GENE MUTATIONS

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Hypotrichosis simplex of the scalp is an autosomal dominant form of alopecia. Affected individuals have normal hair in early childhood but experience progressive loss of scalp hair beginning in the middle of the first decade resulting in almost complete baldness by the third decade. Four Danish patients were published in 1915 (1) and additionally 9 cases from a four generation family in 1991 (2), which have been unified and extended in a 9 generation pedigree covering 153 individuals. A genomewide linkage scan on DNA from Danish family members (affected and non-affected), supplemented with a Spanish family, localized the gene to chromosome 6p21.3 (3). Further investigations of these families and a large Israeli family, revealed mutations in a gene encoding corneodesmosin, a glycoprotein expressed in the inner root sheath of hair follicles (4).

**References**


**PS05.4**

ACHRODERMATITIS ENTEROPATHICA: GENEALOGIES AND GENETIC EPIDEMIOLOGY IN NORWAY

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Up to 1970 all 9 Norwegian families diagnosed as achrodermatitis enteropathica (AE) had been published. Adding 3 families from the 1970s these were then ascertained for genetic linkage analyses and extensive genealogical studies. Four geographic origins to the majority of AE genes were defined (Gedde-Dahl, 4th Int.Congr Hum Genet, Paris 1971. Excerpta Medica 1971; 75: 233). The four sources were in Middle Norway (AE*N1), East Norway (AE*N2), and Western Norway (north AE*N3, south AE*N4). Sources were shown “allelic” by “genetic compounds”, one of which had an abortive symptomatology suggesting part-complementation of non-identical AE-mutations. In the last 2 decades only 3 further families have come to our knowledge, and ancestries have been incompletely studied. We are restudying all accessible families to confirm predicted gene source origins and ancestries have been incompletely studied. We are restudying all accessible families to confirm predicted gene source origins and ancestries have been incompletely studied. We are restudying all accessible families to confirm predicted gene source origins and ancestries have been incompletely studied. We are restudying all accessible families to confirm predicted gene source origins and ancestries have been incompletely studied. We are restudying all accessible families to confirm predicted gene source origins and ancestries have been incompletely studied. We are restudying all accessible families to confirm predicted gene source origins and ancestries have been incompletely studied.
A SPORADIC CASE OF CONGENITAL HYPOTRICHOSIS TREATED WITH MINOXIDIL
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Atrichia congenita is characterized by permanent absence or loss of hair. Congenital hypotrichosis is a less severe form of the same process. It may be autosomal recessive or autosomal dominant. Also sporadic cases have been reported. In these cases the diagnosis and classification is difficult. The differential diagnosis includes diffuse congenital alopecia areata. We present a 4-years-old girl who had only sparse lanugo hair in birth. Later, thin hair growth of 2 cm was seen. The light microscopy examination of her hair was normal. The scalp biopsy revealed decreased density of hair follicles. Hair pull test was negative. The growth of our patient was retarded (–2.5SD). No mental retardation or other abnormalities have been noticed. She has no family history of hair disorders. After 1 year’s treatment with minoxidil, she has still diffuse alopecia in frontal area. However, her other hair is totally normal. Usually no treatment is effective in this disease. The diagnostic problems will be discussed.

NEW AND OLD PARVOVIRUSES IN HUMAN SKIN
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Parvoviruses are small, non-enveloped DNA viruses infecting mammals widely. The exclusive human pathogen known is parvovirus B19, causing a variety of illness including erythema infectiosum and other skin diseases, postinfectious arthropathy, fetal death, acute or chronic anemia, and various autoimmune phenomena. In 1997 we, against the dogma, showed ubiquitous decades-long persistence of B19 DNA genomes in human synovial tissue. We further showed that the persistent viral genomes are of preserved integrity and apparently full-length coding capacity. In 2002, we and others discovered in human skin a parvovirus variant, now designated genotype 2, which differs from all the known parvoviruses so much that it was only barely detectable by the existing B19-PCR methods. Unlike for the B19 prototype, skin appears to be the preferred persistence site for genotype 2. The exact location (dermis/epidermis; cell type) of the B19 genome persistence is under study. Furthermore, we and others have detected in human skin, genomic DNA of a recently discovered single-stranded-DNA (ssDNA) virus, TT-virus (TTV), the first circovirus known to infect humans. However TTV, unlike parvo, persists ubiquitously also in human blood, whereby the persistence mechanisms in human skin for the two ssDNA virus families may be distinct.

The findings on long-term, low-level ssDNA persistence of the parvo and circo viruses have revolutionised the diagnostic criteria for arthropathy and other infectious illnesses; and may cast new light on the pathogenesis of autoimmune disease. With this ssDNA-virus microflora in human tissues we furthermore hypothesise that the hitherto-recognised human parvoviruses – in analogy with the circoviruses – might represent the mere tip of the iceberg of a multitude of genomic sequences, which by extensive divergence have escaped detection by the DNA amplification assays in current use.

HIV-PATIENT CARE AT A CLINIC FOR DERMATOLOGY AND VENEREOLOGY
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Since 1985 our department have had a special clinic for HIV-positive patients. We have taken care of the patients from diagnosis to death. To date about 200 patients have been under treatment and currently 80 patients are under our care.

During the years the management of the patients has changed a lot. The biggest change came 1996 when highly active antiretroviral therapy was introduced. The morbidity and mortality declined dramatic and our work changed from diagnosing and treating opportunistic infections to management of complicated treatment regimens, resistance problems and side effects.

To give good care to these patients, important things are to be interested and have good knowledge in this disease, to be used to talk about sexual behaviour and ability to build up a multidisciplinary team around the patients. We think that doctors specialized in dermatology and venerology suits very well for this task.

The presentation will cover different aspects of HIV-care and give data from a 20-year follow-up of our patients.

IS THERE A LINK BETWEEN OROPHARYNGEAL AND GENITAL HPV INFECTIONS?
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Introduction: Adult-onset laryngeal papillomatosis is a frequently relapsing disease affecting especially males. We studied the history and prevalence of extralaryngeal HPV infections in these patients to find out their susceptibility to HPV.

Methods: Of adult-onset laryngeal papilloma male patients treated at Helsinki University Central Hospital during 25 years, we examined 50 for clinical findings, Pap, and cytological samples from oral mucosa and urethra, biopsying HPV-suspect lesions. Fifteen female sexual partners underwent gynecological examination and HPV antibody assay, the latter done also to patients and controls. Immunohistochemistry was performed on laryngeal papilloma biopsies.

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Results: Of the patients, 16% (8) had a history of genital warts, of the controls 12.5% (6 of 48). A history of skin warts was more common in patients. Their prevalence of genital warts was higher (3 of 50, 6%) than (1%, earlier study) in the general population. Prevalence of oral HPV DNA was 8% (4 of 50). HPV antibodies were no more frequently elevated in patients, with viral L1 protein expression in only 4 of 41 (9.8%) of laryngeal biopsies. Patients’ sexual habits were unexceptional except for over-representation of high-frequency orogenital sex initiated mean 9.7 years before diagnosis.

Conclusions: Patients with adult-onset laryngeal papillomatosis seem to be prone to HPV infections. That viral L1 structural proteins were seldom expressed in laryngeal papillomas was related to poor humoral immune response: these proteins are antigens for HPV antibodies. Primary laryngeal HPV infection in adolescence may remain latent, requiring co-factors to develop into the clinical disease.

PS06.4
ONCE DAILY VALACICLOVIR REDUCES TRANSMISSION OF GENITAL HERPES
Anders Strand
Department of Medical Sciences, Dermatology and Venereology, University Hospital, Uppsala, Sweden

Background: Transmission of genital herpes to a sexual partner is a major concern to patients. Daily valaciclovir suppresses genital herpes clinical recurrences and HSV shedding. We investigated the efficacy of once-daily valaciclovir suppressive therapy in the source partner for reducing genital herpes transmission to the susceptible partner in heterosexual, monogamous, HSV-2 discordant couples.

Methods: In a randomized double-blind study, HSV-2 seropositive source partners with a history of <10 episodes/year received valaciclovir 500 mg once daily or placebo for 8 months. HSV-2 seronegative susceptible partners were monitored monthly for acquisition of genital herpes. Couples were offered condoms and counseled on safer sexual behaviour at all visits. The primary endpoint was the proportion of susceptible partners with a first episode of symptomatic genital herpes (confirmed by HSV-2 culture, PCR or seroconversion). All endpoints were ratified by an endpoints committee prior to unblinding the study.

Results: 1484 couples participated in the study. 741 source partners received placebo and 743 received valaciclovir. 488 susceptible partners were women and 996 were men. Sixteen (2.2%) subjects in the placebo, vs 4 (0.5%) in the valaciclovir group acquired symptomatic genital herpes, relative risk = 0.25, 95% CI 0.08, 0.74, p=0.011, a 75% reduction in the risk. Twenty-seven (3.6%) of placebo vs 14 (1.9%) of valaciclovir treated partners transmitted genital HSV-2 infection (measured by laboratory-confirmed symptoms or seroconversion). At any time the risk of transmitting HSV-2 infection was reduced by 48% (hazard ratio = 0.52, 95% CI 0.27, 0.99, p=0.039). Adverse events were similar in nature and frequency between treatment groups.

Conclusions: Once daily valaciclovir suppressive therapy significantly reduces the transmission of genital herpes among heterosexual HSV-2 discordant couples. This is the first randomised controlled trial of an antiviral demonstrating a reduction in sexual transmission of an infection.

PS07.1
PSORIASIS PHENOTYPE AT DISEASE ONSET
Mona Ståhle
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Psoriasis is one of the most studied diseases in dermatology. Despite detailed clinical and histological characterization and extensive genetic and epidemiological research, our understanding of psoriasis is still incomplete.

To obtain thorough and reliable knowledge on the epidemiology and clinical features of the disease over time, we have undertaken the effort to establish a cohort of psoriasis patients that are identified within 12 months of disease onset in the Stockholm area and we present data on the first 400 patients, 76 with guttate psoriasis phenotype and the majority of the remaining being of the plaque type. In accordance with previous data, guttate phenotype was associated with a younger age at onset and a recent streptococcal pharyngitis which was verified by culture in 63% of cases, while the predominating precipitating factor in the plaque phenotype was a recent life crisis event. Positive family history did not differ between groups. Psoriasis arthropathy was diagnosed in 5% of the guttate and in 15% of the non-guttate patients at disease onset. The patients will be surveyed for disease course, response to treatment, co-morbidity and psycho-social factors and phenotype/genotype correlations will be performed. The strategy may help resolve some remaining puzzles in psoriasis.

PS07.2
MICROORGANISMS IN INTERTRIGINOUS PSORIASIS: IMPLICATIONS FOR TOPICAL THERAPY
Ingela Flytström
Department of Dermatology & Venereology, Sahlgrenska University Hospital, Göteborg, Sweden

Infection can be a trigger and an aggravating factor in psoriasis. Antibacterial and/or antifungal agents are commonly used in the treatment of intertriginous psoriasis, because it is believed that flexures in psoriasis are often colonized by Candida species and Staphylococcus aureus. Bacterial and fungal cultures were studied from 32 psoriatic patients with no topical treatment in the intertriginous areas, from 13 patients treated with topical steroids and from patients with no psoriasis or other affections of the skinfolds. Untreated psoriatic patients were colonized by S. aureus significantly more often than the control group but infection seemed to be unlikely. Candida was not found in any of the groups. It is proposed that intertriginous psoriasis be treated with topical steroids alone and that the routine use of antimycotic and antibacterial combinations should be avoided.
PS07.3
SYSTEMIC TREATMENT OF PSORIASIS WITH FUMARIC ACID ESTERS: AN OVERVIEW
Ulrich Mrowietz
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Fumaric acid esters have been used for the systemic therapy of psoriasis since 1959. A defined mixture of fumaric acid esters (Fumaderm®) is registered for treatment of severe psoriasis vulgaris since 1994 in Germany only, however, the drug is also available for some patients in The Netherlands, England and Italy.

The composition of the marketed mixture was created by empirical means. The main ingredient, dimethylfumarate (DMF), is the active substance, which is now in a European multicenter trial for psoriasis as a monosubstance in the galenical formulation of microtablets.

In recent years many new pharmacological activities of DMF and its main metabolite, methylhydrogenfumarate (MHF), have been discovered. It was shown that DMF is a potent inhibitor of nuclear factor kappa B (NFκB)-translocation, thereby decreasing the synthesis of a variety of pro-inflammatory mediators such as interleukins 8 and 12 and of adhesion molecules like ICAM-1, VCAM-1 and E-selectin. In a variety of cells including activated T cells and monocyte-derived dendritic cells DMF induces apoptosis in a dose- and time-dependent fashion. A shift of a Th1- to a Th2-like pattern was found in T cells treated with MHF.

Data from clinical studies show that Fumaderm® is an effective treatment with a favourable safety profile. Adverse events mainly consist in gastro-intestinal complaints and flush. By using the new galenical formulation of microtablets GI-effects do no longer occur. There are no reports about an increased risk of malignancies or infections even after continuous long-term use over several years. Fumaderm® can be combined with topical anti-psoriatic drugs. A synergistic action was demonstrated by using a combination of Fumaderm® with calcipotriol.

Therefore, fumaric acid esters, namely DMF, may be regarded as a drug of choice for patients with psoriasis in which systemic therapy is indicated.

PS07.4
UPDATE ON BIOLOGICALS
Knud Kraghøj
Department of Dermatology, Aarhus University Hospital, Aarhus, Denmark

Advances in molecular immunology have revealed the key role of T cells and cytokine networks in the genesis and maintenance of the psoriatic phenotype. Together with advances in large scale protein synthesis technologies, this has resulted in the development of novel targeted therapies using engineered antibodies and fusion proteins.

Clinical phase III have been conducted with alefacept, efalizumab, infliximab and etanercept. These compounds differ in their onset of action, duration of improvement and incidence of side effects. The safety and efficacy appear to compare favourably to conventional anti-psoriatic therapies. Although, there are concerns over cost, administration methods and immune impairment, it is important that biologicals become approved for the indication psoriasis.

PS07.5
A CLINICAL DATABASE ON PSORIASIS PATIENTS TREATED WITH BIOLOGICAL AGENTS: REPORT FROM A NORDIC STUDY GROUP
Jørgen R Rønnevig
Department of Dermatology, The National Hospital, Oslo, Norway

The continuous basic research in immunology and immune pathology has offered clinicians new tools for treatment of severe diseases with an unmet need for efficient and safe medications. We have witnessed new biological agents within several fields of medicine and we are now within the first phase in dermatology. Various degrees of efficacy have been shown for the biologicals in psoriasis and for some drugs potentially severe short-term side effects have been reported. However, the rare and the long-term side effects will never be evident in clinical trials but the knowledge will eventually accumulate if patients exposed to the biologicals are followed-up systematically. A Nordic initiative to establish a database for this purpose will be presented. The database will be as simple as possible in order to facilitate the establishment of a proper registry.

PS07.6
NO LONG-TERM CHANGES IN QUALITY OF LIFE FOLLOWING CLIMATE THERAPY FOR PSORIASIS
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1Oslo University College, Oslo, Norway
2Rikshospitalet, Oslo, Norway
3UCSF, Oslo, Norway

Climate therapy is supplemental for patients with psoriasis who require hospitalisation and frequent outpatient care, and may also be part of sequential or tailored regimens in many patients. To our knowledge no study has shed light on long-term patterns of quality of life related to climate therapy. This paper describes a study of 286 patients who underwent climate therapy in 2001. The study evaluated changes in perceived disease severity (SAPASI), health status (SF-36), life quality (1 item question) and self-acceptance of appearance (1 item question) throughout a period of eight months following climate therapy. The results were strikingly similar across measures. The lowest disease severity, better health and life quality, and more complete self-acceptance of appearance occurred two weeks after therapy. However, by 4 and 8 months after therapy, all measures had returned to approximately the same level as before treatment. The results do not support a long-term effect of climate therapy with regard to patient-perceived disease severity and quality of life. Experimental research is needed to more fully examine the effects of climate therapy.
PS08.1

CONGENITAL ICHTHYOSIS AND ITS DIFFERENTIAL DIAGNOSIS

Anders Vahlquist
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Congenital ichthyosis (CI) is a rare condition with a broad etiologic spectrum ranging from dominant negative keratin mutations, as in epidermolytic hyperkeratosis (syn. bullous ichthyosis), to various recessively inherited diseases with associated extra-cutaneous symptoms, such as Sjögren-Larsson and Netherton syndromes. The most common cause of CI is however deficiency of transglutaminase 1 due to heterozygous or homozygous TGM1 mutations which causes defects in the cornified cell envelope. This is typically associated with a collodion baby phenotype at birth which subsequently transforms into lamellar ichthyosis or ichthyosiform erythroderma. In our study of nearly 200 cases of CI from Scandinavia and Estonia, TGM1 mutations accounted for about 50% of non-bullous CI, whereas syndromic CI with known causes represented about 20% and various yet unidentified mutations leading to typical ultrastructural abnormalities in epidermis accounted for the rest. Bullous CI, on the other hand, was exclusively caused by keratin (K1, 2e or10) mutations, most of which represented gametic or somatic de novo mutations. Keratin mutations accounted for at least 25 cases in our study, a few of which were clinically characterized by pachonychia congenita or nevoid lesions. Early diagnosis is essential not only for a correct medical attention but also for informing the parents about the prognosis, especially when there is no previous history of CI in the family. Today, numerous biochemical, genetic and ultrastructural methods are available to classify CI within weeks after birth. Irrespective of CI type, the baby’s skin barrier failure at birth often necessitates intensive care to control for dehydration and hazardous skin infections. Frequent application of petrolatum-based ointments is a routine treatment for collodion babies, but may increase the risk of septicemia when used in a high humidity environment.

PS08.2

EPIDERMOLYSIS BULLOSA – AN UPDATE

Dörte Koss-Harnes
Department of Dermatology, The National Hospital, Oslo, Sweden

The talk will give an overview of the broad disease complex of epidermolysis bullosa. Current diagnostics of epidermolysis bullosa of the newborn, their possible clinical features as children and adults and the most common discoveries regarding the etiology of the disease will be discussed.

PS08.3

CHILDHOOD ATOPIC ECZEMA

Kristiina Turjanmaa
Department of Dermatology, Tampere University Hospital, Tampere, Finland

Atopic eczema (AE) is a common disease in childhood, cumulative prevalence up to 15–20% has been reported in population-based studies. Food allergies play an important role in the pathogenesis of AE in children, being most common in infancy. All children with moderate to severe AE that is difficult to treat should be studied for food allergy. A strong association has been shown between AE and IgE-mediated allergy to milk, egg, peanut, cereals, soy and fish, but more than two-thirds of patients intolerant to foods show no evidence of IgE sensitization to the relevant food.

Because of the simultaneous sensitization to multiple foods the diagnosis is often difficult to establish. Clinical history, skin prick testing, measurement of specific IgE-antibodies and lately the atopy patch test are useful tools to find out the suspected foods. Introduction of an appropriate elimination diet is needed to minimize the symptoms and for verifying the allergy by challenge tests. Other environmental allergens like animal dander, house dust mite and pollens may also be responsible for the AE in childhood. Elimination diets are the treatment of choice. Mastery in nutritional facts and cooperation with the dietician are needed to avoid failure to thrive. Repeated challenges are indicated because most children grow out their allergies to so-called basic foods (milk, egg, cereals, soy). In older children sensitized/allergic to pollens cross-reacting foods may be responsible for the AE. Diagnosis can be done with prick-prick testing and provocation tests.

PS08.4

SKIN INFECTIONS IN CHILDREN

Lone Skov
Department of Dermatology, Gentofte Hospital; Gentofte, Denmark

Bacterial, viral and fungal infections are common in children. This talk will focus on the recent findings in relation to staphylococcal infection in children. Impetigo is the most common staphylococcal skin infection. Staphylococcal impetigo is often bullous due to the exfoliative toxin A produced by Staphylococcus aureus. Staphylococcal exfoliative toxin A which also cause the more severe staphylococcal scaled-skin syndrome has just been shown to targets desmoglein 1 in the epidermis leading to blister just below the stratum corneum. Desmoglein 1 is a cadherin that mediates cell to cell adhesion and is already known as the receptor for the autoantibodies in pemphigus foliaceus. Staphylococcal skin infection is seen in most patients with atopic dermatitis and may lead to exacerbation of the eczema. Recent findings including release of superantigens from the Staphylococcus aureus, increased ability for binding Staphylococcus aureus and decreased ability to generate antimicrobial peptides in atopic skin may help to explain the increased frequency and severity of staphylococcal skin infection in patients with atopic dermatitis.
ACHRODERMATITIS ENTEROPATHICA: 8Q24 HAPLOTYPES REVEAL DIAGNOSIS

Carl Wilhelm Haakenstad, D Koss-Harnes, T Gedde-Dahl
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In 2001, an US research group discovered by genome screens that the acrodermatitis enteropathica gene mapped to chromosome 8q24 and subsequently it was found causal mutations in the SLC39A4 gene. Due to our long-term study to chromosome 8q24 and subsequently it was found causal mutations in the SLC39A4 gene. We decided to use our 8q24 markers to establish the SLC39A4-flanking haplotype background in Norwegian AE families. Previous genetic epidemiological work suggested the majority of gene carriers to carry only 4 major haplotypes. Haplotypes, forming basis for planned gene mutation search, will be explained and presented.

PS08.7
SKIN MANIFESTATIONS IN CHROMOSOMAL MOSAICISMS

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Chromosomal mosaicism is the basis of many cases of pigmented mosaicism (linear and whorled hypermelanosis, hypomelanosis of Ito), and is often associated with multisystem disorders affecting both males and females. A wide variety of numerical or structural chromosomal abnormalities have been described in such cases. The spectrum of clinical manifestations and cytogenetic findings is wide.

Three recent cases from Odense University Hospital are presented:
A) A 5-year-old girl with phylloid hyperpigmentation, neurological deficits and mosaic tetrasomy 5p in cultured fibroblasts.
B) A 48-year-old man with predominantly left-sided hypochromic, telangiectases, slight hyperpigmentation, left-sided skeletal abnormalities, hearing loss and trisomy 16 mosaicism in cultured fibroblasts.
C) A 12-year-old, mentally retarded girl with epilepsy, streaky hypo- and hyperpigmentation, unilateral skeletal hypoplasia, and mosaic tetrasomy 12p in cultured fibroblasts (Pallister-Killian syndrome). The indication for cytogenetic investigations, optimal technique and risk of transmission to future offspring will be discussed.

PS09.1
PROBIOTICS IN THE PREVENTION AND TREATMENT OF ATOPIC DERMATITIS
Marko Kalliomäki, Finland

Abstract not available at the time of printing.

PS09.2
THE ROLE OF THE EARLY ENVIRONMENT FOR EXPRESSION OF ATOPIC DERMATITIS
Anne Braae Olesen
Department of Dermatology, University Hospital of Odense, Denmark.

Atopic dermatitis (AD) is often expressed in the first 3 to 5 years of life. The aetiology of AD involves interaction between genes and certain environmental exposures in utero, early life and later. Several studies have reported a positive association between birth factors and AD suggesting that some risk factors may already be operating in utero. Earlier findings have supported an imbalance between Th1 and Th2 responses among infants who later developed atopic disease. It has been speculated that this is caused by disproportionate growth of the foetus affecting the growth of thymus. This could not be verified. However, among children with active AD we found a significant positive association between birth factors and AD.

The early onset of AD indicate that exposures in early life may be of significant importance for expression of the disease. The results concerning association between AD and surrogate measures of early infections and well-defined early infections are conflicting. It has been suggested that the sibling effect has its origin in utero.

The evidence of association between AD and some Th1-mediated diseases are conflicting. Several studies point to the fact that an early onset of an atopic Th2-mediated disease may protect, postpone or alter the clinical course.
of a later expressed autoimmune Th1-mediated disease, whereas there may be no or a positive association between the Th1 and Th2-mediated diseases after the onset of either a Th1 or Th2-mediated disease later in life.

**PS09.3**

**ATOPIC DERMATITIS – A GENETICALLY COMPLEX DISEASE**

Maria Bradley
Department of Dermatology, Karolinska Hospital & Institute, Stockholm, Sweden

Atopic dermatitis is viewed as a multifactorial disorder caused by the combined influence of genes and environment, the relative contributions, however, being unknown. A number of candidate genes have been proposed and linkage has been found between atopic dermatitis and several chromosomal regions characterized by genetic markers. Genome-wide linkage studies have mapped susceptibility regions on chromosomes 1q21 (ATOD2), 3q21 (ATOD1), 5q31-q33 (ATOD6), 13q12-q14 (ATOD5), 17q25 (ATOD4), 20p (ATOD3). Three of the regions correspond to known psoriasis loci, indicating common genes affecting skin inflammation. Other overlapping chromosomal regions are linked to allergic asthma and specific IgE-levels indicating common atopy-genes. There are also overlapping chromosomal regions for diabetes, multiple sclerosis, rheumatoid arthritis, and inflammatory bowel disease indicating common inflammatory genes. This will be reviewed and updated as well as some of the candidate genes in the chromosomal regions that have been associated with atopic dermatitis.

**PS09.4**

**TOPICAL STAPHYLOCCAL ENTEROTOXIN ENHANCES IgE PRODUCTION AND ALLERGEN INDUCED SKIN INFLAMMATION**

Antti Lauerma, T Träskbäck, M-L Majuri, H Wolff, H Alemus
Finnish Institute of Occupational Health, Helsinki, Finland

**Rationale:** To explore the role of bacterial toxins in atopic dermatitis we investigated effects of topical application of SEB in the murine model of atopic dermatitis.

**Methods:** BALB/c mice were epicutaneously treated with ovalbumin (OVA-group), SEB (SEB-group), combination of OVA and SEB (OVA/SEB-group) or vehicle (SAL-group). Cytokine and chemokine mRNA expression in the skin was investigated by real-time-PCR. Skin morphology was examined by histological methods. Total and specific antibody levels were studied by ELISA.

**Results:** Total IgE levels were dramatically elevated in all SEB treated mice compared to OVA- or SAL-treated mice. SEB specific IgE levels were significantly higher in SEB-group compared to OVA/SEB-group. OVA-specific IgE levels were significantly higher in OVA/SEB-group compared with OVA-treated mice. Topical SEB application elicited skin dermatitis and also significantly increased the degree of OVA-induced skin inflammation in OVA/SEB-group. Significant induction of several cytokines and chemokines was found in the skin of all SEB treated mice compared to SAL-group. Synergistic induction of mRNA expression in OVA/SEB-group was seen in some cytokines and chemokines.

**Conclusions:** Topical SEB application induces in mice a strong IgE antibody response and a mixed Th2/Th1 type skin inflammation. Cutaneous route exposure to SEB may critically regulate the development of skin dermatitis and the production of IgE antibodies in patients with atopic dermatitis.

**PS09.5**

**A COMPARISON OF DIFFERENT CRITERIA TO DIAGNOSE ATOPIC ECZEMA IN INFANCY**

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2Department of Statistics, University of Southern Denmark, Odense, Denmark
3Department of Paediatrics, Odense University Hospital, Odense, Denmark

**Objectives:** To study: 1) the prevalence of atopic eczema (AE) in unselected infants using different diagnostic criteria, 2) the agreement between criteria and 3) the association between atopic heredity, postnatal sensitisation and the development of AE.

**Methods:** 562 randomly selected newborns were followed prospectively from birth to 18 months of age. AE was defined using the criteria of Hanifin-Rajka (H), Schultz-Larsen (S), Danish Allergy Research Centre (D), Visible eczema (V) and the UK diagnostic criteria (UK). The agreement between criteria was evaluated using agreement rates and kappa statistics. The results were compared to a previous Danish study of unselected infants.

**Results:** The one-year prevalence of AE using H, S, D, V and UK was 9.8%, 7.5%, 8.2%, 12% and 7.5%, respectively. The pair wise agreement between 5 criteria was between 93-97% and kappa scores between 0.6-0.8. Cumulated incidences showed better agreement than point prevalence values. The association of AE to postnatal sensitisation was consistently stronger than to parental history of allergic diseases and parental atopy. The frequency of AE had not increased in the past decade.

**Conclusions:** The highest kappa value was found between H and D, while S and UK agreed around 0.7, whereas V showed the poorest agreement. “Cumulative diagnoses” were superior to “point diagnoses”. A positive atopic diathesis was less predictive for AE than sensitisation to common food and inhalant allergens in infancy.

**PS09.6**

**THE ATOPIC PATCH TEST IN DIAGNOSING OF FOOD HYPERSENSITIVITY**

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PS10.1

LIVING WITH PSORIASIS: HOW PATIENTS THINK AND ACT REGARDING THEIR CARE
Kirsten Tarri Bak
Viborg Sygehus, Viborg, Denmark

Living with psoriasis is a considerable burden and quality of life in patients is deeply affected, yet compliance with therapy is a major problem. The literature is abundant in efforts directed at the improvement of therapies but sparse concerning the experiences of patients. This study aims to promote an understanding of the daily life of patients with psoriasis, ultimately to improve nursing care to the patients. A qualitative case study design is applied and 4 patients are interviewed in depth focusing on their experiences related to psoriasis and its treatment. Analysis of the interviews reveals the notion of stigma as a central theme. Also, the patients suffer physically from itching and pain. The daily life of patients proves to be a struggle caring for themselves and overcoming the complexities of being different to the expected norm, occupying great amounts of energy. They describe their lives as a tight-rope walking of taking into account the disease yet having a life worth living. Thus, the discomfort and results of treatments and the discomfort and results of psoriasis are weighed against each other. Each patient displays a pattern of habits, techniques and tricks in dealing with the troublesome effects of psoriasis, according to the values and preferences of the individual. The results of this study stress the importance of the patient’s experiences, needs and preferences when dealing with psoriasis. Having that as a basis might improve the understanding of patients with psoriasis. Thus, it has the potential for improvement of care.

PS10.2

TIME SPENT ON TREATMENT – AN IMPORTANT FACTOR TO PATIENTS

Factors to patients time spent on treatment – an important care.

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preferences when dealing with psoriasis. Having that as
a basis might improve the understanding of patients with
psoriasis. Thus, it has the potential for improvement of
care.

PS10.3

LIVING WITH A VENOUS LEG ULCER: A CLINICAL INVESTIGATION OF THE PATIENT'S EXPERIENCE
Hilde Ingebretsen
Ullevål University Hospital, Oslo, Norway

This investigation aimed to describe the experience of living with a venous leg ulcer from the patient’s perspective. Investigating the experience of illness is important in understanding how disease processes affect the lives of people, how they understand and cope with these processes, and how care may be given most effectively. Little research has been conducted to examine the experiences of people with leg ulceration. A phenomenological approach was chosen using narratives to describe the experience of venous leg ulceration. Two female informants with leg ulcers comprised the study sample. The narratives were transcribed and analysed for recurrent themes and meanings, which then were validated through comparison with earlier studies in the literature. Pain was identified as the dominating feature of the experience of leg ulceration. However, pain, smell and leakage all caused significant restrictions in the patient’s life, particularly in their ability to walk, and get out. Leg ulcer treatment was not described as being efficacious in ameliorating these symptoms. Nevertheless these patients expressed great confidence and trust in the expertise of nurses. Patients coped with the experience of leg ulceration mainly by a process of normalizing. These findings indicate that if nursing care is to meet the needs of patients with venous leg ulcers then symptom control must be the highest priority.
**PS10.4**  
**QUALITY OF LIFE IN PATIENTS WITH HEREDITARY ANGIODEMA**  
Lisbeth Reitz  
Department of Dermato-Venereology, Odense University Hospital, Odense, Denmark

Hereditary angioedema is a rare disease caused by an inherited deficiency of C1 inhibitor (C1-INH) function.

The patients present recurrent angioedema localized to subcutaneous or mucous tissues. Thus the clinical symptoms include skin swelling, severe abdominal pain and life-threatening episodes of upper airway obstruction. Managed correctly, the patient can keep the number and severity of acute attacks on a minimum.

The disease and its treatment have been known for years. However, its rarity makes it a highly misdiagnosed and -treated disorder.

HAE misdiagnoses include anaphylactoid reaction, psychosomatic illness, acute appendicitis and acute rheumatic fever. Many patients have not been correctly diagnosed until 10–20 years after onset of symptoms and their lives might have been severely disturbed by the disease.

On this background a study on Quality of life in Danish patients with HAE is now being prepared. Dermatology Life Quality Index (Finlay AY, Khan GK. Clin. Exp. Dermatol 1994;19:210-16) is thought to be main-tool in the Quality of Life Measurement.

**PS11.1**  
**SKIN SIGNS OF SYSTEMIC DISEASE. AN INTERACTIVE QUIZ SESSION**  
Ole B Christensen and Anna Hannuksela-Svahn  
1Ullevaal University Hospital, Department of Dermatology, Oslo, Norway  
2Kynenlaakson Keskussairaala, Ilosairauksien Poliklinikka, Kotka, Finland

During the first half of the session 12–15 cases are presented with clinical photos together with a short history. The participants are supposed to make/suggest a diagnosis for each case. In the second half of the session the diagnoses will be presented and discussed.

**PS11.2**  
**UV TREATMENT OF URAEMIC PRURITUS**  
Eli Johanne Nordal, OB Christensen  
Ullevål University Hospital, Oslo, Norway

Disabling pruritus is a common phenomenon in patients with severe renal disease and is reported by 60–90% of patients undergoing dialysis. There are few effective treatment options. Since 1975, UVB has been used with success in some patients and is described as the ‘treatment of choice’. Probably the pathogenetic pathways leading to the symptom of itching in uremic patients are several. Hence different means of treatment used for itching of other causes can be worth trying. After an initial (incidental) positive experience with UVA given to an itching renal patient, we have carried out a study comparing UVA treatment in sunbed with BB-UVB in cabinet for patients with uremic pruritus. Of the 37 patients included there were 13 early dropouts, as these patients present with a considerable morbidity, comorbidity and even the mortality is high. The treated 24 patients (9 women, 15 men, aged 40–84 years) had been randomised to UVA (15 patients) or UVB (9 patients), and in addition 3 UVA-treated patients switched over to UVB. The degree of itching was recorded using a visual analogue scale (0–10). The majority of the UVA-treated patients (11/15, 73%) experienced a rapid and good effect, compared to the somewhat slower response with UVB (7/12, 58%). The 3 switching patients turned either worse or remained unchanged with UVB compared to UVA. The study is not blinded and the numbers are few, so strong conclusions cannot be drawn. But even so, the results seem interesting and the study will go on.

**PS11.3**  
**RADIATION DERMATITIS: PREVENTION AND TREATMENT BY TOPICAL AGENTS, A REVIEW**  
Mette Astrup Madsen, KE Andersen  
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Radiation dermatitis is a common side effect of ionizing radiation. The frequency and severity varies depending on total irradiation dose, fractionation of dose, field size, and regional skin response. After the initial radiation dermatitis tissue damage may develop into ulceration, skin atrophy, telangiectasia, hyper- or hypopigmentation, loss of skin appendages and necrosis. The incidence of radiation dermatitis has decreased with the implementation of modern radiation equipment, but even so, it still continues to influence the therapeutic radiation schedule. The most important aspect is prevention by limiting the skin radiation dose.

Treatment of radiation dermatitis has been based on tradition and clinical experience. There is a lack of evidence-based treatments for this condition.

A literature search has revealed 16 articles describing randomized, controlled trials with different topical agents for radiation dermatitis.

Two placebo-controlled studies with creams containing sucralfate or hyaluronic acid have shown a delay in development of erythema. However, at later follow-up the difference disappear or is insufficiently reported. Trials with topical corticosteroids have shown no or minimal effect of low potency corticosteroids while potent corticosteroids seem to reduce or delay acute radiation dermatitis.

Bepanthen® cream, Aloe Vera gel, Vitamin C solution, Biafine® cream, Chamomile cream and almond ointment did not show a significant effect on radiation dermatitis.

Many of the above topical agents have a moisturising effect which may comfort the patient.

**Conclusion** there is a need of more controlled, randomised, double-blind clinical trials that can document the best way to treat radiation dermatitis. Until more evidence is available, the most important success criteria should be the patient’s comfort and quality of life.
PS12.1

WHAT'S NEW IN DERMATITIS HERPETIFORMIS AND PEMPHIGOID?

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Dermatitis herpetiformis (DH), a cutaneous phenotype of coeliac disease, is frequent in Finland (prevalence 1/1500), Sweden and Norway but less common in Denmark and Baltic countries. Risk for familial disease is high, at least 5% of the siblings and children contract coeliac disease or DH (1). Autoimmune pathogenesis for small intestinal mucosal damage consists of HLA DQ2-restricted T-cell response against wheat gliadin peptides and formation of IgA autoantibodies against tissue type transglutaminase. In DH skin IgA deposits colocalize with epidermal transglutaminase (2). IgA transglutaminase ELISA is a specific new blood test to detect jejunal villous atrophy and follow-up its healing. Gluten-free diet (GFD), where oats is allowed, is the treatment of choice for every patient with DH (3). A follow-up study showed that dietary compliance was good/moderate in 88% of our 157 DH patients adhering on a GFD for 1–25 years. Compliance was significantly linked to the activity of the rash and information given by dermatologist/dietician/Coeliac society but not dependent on demographic factors or cost of commercial gluten-free products. Most common incident faults were drinking beer or eating pasta, liquorice and sweets. GFD treatment may decrease incidence of associated thyroid and other autoimmune diseases but osteoporotic changes remain unaltered. Bullous pemphigoid affects elderly people and persists usually 2–5 years. Direct IFL showing linear IgG deposition at dermo-epidermal junction is still the most reliable diagnostic method. Prednisons is the first line treatment. Recent Cochrane review concludes that lower starting dose (0.5 mg/kg/day) may be adequate for disease control in more patients than previously believed (4). This dosing reduces also incidence of severe adverse reactions, especially death. Very potent topical steroid (clobetasol propionate) applied in large quantities is as effective as prednisone. Its use in extensive disease is limited by practical factors. The effectiveness of addition of azathioprine, methotrexate or plasma exchange to prednisone has not been established. Combination treatment with tetracycline and nicotinamide needs further validation. Mucous membrane (cicatricial) pemphigoid is a validation. Treatment with tetracycline and nicotinamide needs further validation. Very potent topical steroid (clobetasol propionate) applied in large quantities is as effective as prednisone. Its use in extensive disease is limited by practical factors. The effectiveness of addition of azathioprine, methotrexate or plasma exchange to prednisone has not been established. Combination treatment with tetracycline and nicotinamide needs further validation.


PS12.2

LYMPHOMA IN PATIENTS WITH DERMATITIS HERPETIFORMIS AND THEIR FIRST-DEGREE RELATIVES

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Background: Enteropathy-associated T cell lymphoma associates with coeliac disease but occurrence in dermatitis herpetiformis (DH) is unknown.

Patients and methods: 1104 Finnish patients with DH followed up from 1 to 30 years were studied for lymphoma. Most of the patients adhered to a gluten-free diet (GFD). 287 of these patients were interviewed for occurrence of lymphoma in their 1st degree relatives.

Results: Twelve (1.1%) patients contracted lymphoma 2–31 years after DH diagnosis. When lymphoma appeared, 9 of these patients had not followed adequately GFD for 5 years. All lymphomas were non-Hodgkin type and T- or B-cell origin, and 8 were found in the gut or abdominal cavity. Four (0.3%) relatives had lymphoma.

Conclusion: Lymphomas occur in patients with DH especially when they are not adhering adequately to a GFD. They are mainly abdominal and either T- or B-cell origin. Lymphoma risk in relatives seems not to be as high as in the patients with DH.

PS12.3

BP180 AND DESMOGLEIN ANTIBODIES

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The pemphigus and pemphigoid group of autoimmune bullous diseases are characterized by antibodies against structural components of the epidermis and epidermal-dermal junction. In pemphigus blisters occur within the epidermis as the consequence of acantholysis whereas in the subepidermal pemphigoid the split occurs just below the basal layer of keratinocytes. The target antigens of pemphigus vulgaris (PV) and pemphigus foliaceus (PF) are the desmosomal cadherins, desmoglein 3 (Dsg3) and Dsg1, respectively. In pemphigoid the autoantibodies target components of the hemidesmosome adhesion complex, BP180 and BP230. Based on clinical, histological and immunopathological findings numerous distinct diseases have been defined within both pemphigus and pemphigoid families. Autoantibodies bound in vivo to skin or mucosae are routinely analyzed by direct immunofluorescence (IF) examination of perilesional samples. Frequently, circulating autoantibodies are also detectable in serum and can be analyzed using indirect IF, immunoblot or immunosorption studies. Recently, enzyme-linked immunosorbent assay (ELISA) utilizing recombinant proteins have been developed and are currently commercially available. Dsg1 and Dsg3 ELISA assays allow us to identify the two major subtypes of pemphigus: Serum reactivity against Dsg3 by ELISA indicates a diagnosis of PV, regardless the reactivity of Dsg1, and reactivity against Dsg1 alone indicates a diagnosis of PF. BP180 ELISA uses the bacterial
have been defined on the basis of unique immunoglobulin direct immunofluorescence, and numerous disease entities diagnosis of bullous diseases is virtually impossible without in the field of autoimmune bullous diseases. Modern microscopy has been established as a major diagnostic tool During the last two decades immunofluorescence Copenhagen, Denmark

**CORRELATIONS**

**CASES – IMPORTANCE OF CLINICO-PATHOLOGICAL PART I: GENERAL PRINCIPLES.**

**CLUES AND PITFALLS.**

**IMMUNOFLUORESCENCE OF BULLOUS DISEASES –**

**PS12.4**

**IGA BULLOUS DERMATOSES**  
Anette Bygum  
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Linear IgA dermatosis (LAD) is a rare acquired autoimmune subepidermal blistering disorder characterized by linear deposition of IgA along the dermo-epidermal junction. Chronic bullous disease of childhood (CBDC) is believed to be a childhood variant of LAD. The cutaneous manifestations are heterogeneous and may mimic other bullous diseases, but a clinical clue could be the annular bullae forming a "string of pearls". Because it may be difficult to distinguish this disorder from bullous pemphigoid, dermatitis herpetiformis or erythema multiforme clinically and histopathologically, the direct immunofluorescence result becomes essential to establish the diagnosis. In some patients circulating IgA antibodies directed against the basal lamina can be found but only in low titres best visualized with salt-split human skin. There is also a strong association with HLA-B8, Cw7, DR3. First-line treatments are dapsone or sulfapyridine, but these therapies have potentially serious side-effects and treatment may be required for several years. There are anecdotal reports or small case series of successful treatment with antibiotics. The majority of patients experience spontaneous remission after an average of 3 to 6 years. IgA pemphigus is a rather newly series of successful treatment with antibiotics. The majority of patients experience spontaneous remission after an average of 3 to 6 years. IgA pemphigus is a rather newly recognized neutrophilic and acantholytic disorder with IgA autoantibodies against desmosomal proteins causing acantholysis, blistering and neutrophilic inflammation. In the subcorneal pustular dermatosis variant, the IgA deposits are predominantly in the upper epidermal layers, whereas in the intraepithelial neutrophilic variant the deposits are found throughout the entire epidermis or concentrated in its lower part.

**PS12.5**

**IMMUNOFLUORESCENCE OF BULLOUS DISEASES –**

**CLUES AND PITFALLS.**

**PART I: GENERAL PRINCIPLES.**

**PART II: ATypical CASES – IMPORTANCE OF CLINICO-PATHOLOGICAL CORRELATIONS**

Susanne Ullman and Robert Gniadecki  
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During the last two decades immunofluorescence microscopy has been established as a major diagnostic tool in the field of autoimmune bullous diseases. Modern diagnosis of bullous diseases is virtually impossible without direct immunofluorescence, and numerous disease entities have been defined on the basis of unique immunoglobulin deposition patterns. In the first part of this paper we will summarize the major known immunofluorescence patterns in relation to bullous diseases. Novel techniques including multicolour confocal fluorescence microscopy will also be mentioned. In the second part we will demonstrate examples of atypical immunofluorescence patterns and confront the pathological findings with patients’ clinical features. We will also discuss novel and controversial disease entities such as eosinophilic spongiosis and its relationship to erythema annulare-like acantholytic disorder and pemphigus herpetiformis, variants of IgA pemphigus and IgE+ bullous pemphigoid.

**PS13.1**

**REMODELING OF THE DEEP FACIAL STRUCTURES BY CO2 LASER SHRINKAGE OF THE SMAS DURING FACE-LIFTING PROCEDURES**

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**Purpose:** To demonstrate how ptotic facial fat pads can be lifted and unwanted fat can be reduced with the CO2 laser in defocus during rhytidectomies.

**Methods:** Since 1999, shrinkage of the SMAS (Superficial Lipo-Musculo-Aponeurotic System) with laser was used on 268 patients during facelifting operations. Shrinkage of the temporal and lateral supra-zygomatic membranes pulls up and redistributes the fat of the eye-cheek complex (Sofflift) without removing any fat. The reduction of the lipo-membranous portion of the SMAS over the zygomatic and parotid area softens the melo-labial folds. Laser ablation of the jowl and submandibular fat plus tightening of the platysma complex restores a youthful appearance of the cervico-mandibular area.

**Results:** It is a safe, simple and non-traumatic procedure, with no nerve injuries so far. It promotes adhesions between the two planes and additional haemostasis. The deep facial shrinkage results in an excellent three-dimensional rejuvenation with high patient satisfaction.

**Conclusion:** Simultaneous skin resection and shrinkage of the SMAS with repositioning of the deeper facial fat pads may reduce the need for deep plane resections and is an answer to the three issues that challenges modern rhytidectomy; restoration of the cheek lower lid curvature, softening of the naso-libial folds and correction of the jowl submandibular contour.

**PS13.2**

**DIFFERENT APPLICATIONS OF THE 532 NM FREQUENCY DOUBLED ND: YAG LASER**

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2Department of Dermatology, University of Aarhus, Denmark

Frequency doubled Nd: Yag laser ia a new generation laser system primarily indicated for the treatment of linear vascular lesions but can also be used for treatment of small epidermal pigmented skin lesions.
The laser system we used was MedArt 470 from Asah Medico delivered with 1.4 mm hand piece for small lesions and scanner with an adjustable scanning pattern for more extended skin lesions. The scanner can be connected to the cooling system, which significantly cools the skin and reduces discomfort for the patient during the laser procedure.

The laser wavelength is 532 nm and absorbed in both oxyhemoglobin and melanin. The degree of competition between these two chromophores determines the depth of penetration of the laser beam. In a darkly pigmented individual, absorption of the laser light by epidermal melanin interferes with further transmission into the dermis, thus limiting absorption by oxyhemoglobin in blood vessels.

We used the 532 nm frequency doubled Nd: YAG laser for treatment of vascular lesions such as spider naevi, telangiectasia and small vascular malformations. Secondly we treated pigmented lesions: lentigines and seborrheic keratosis.

Although the laser light of 532 nm is selectively absorbed by oxyhemoglobin in vessels and melanin pigment, heat deposited in these structures can diffuse into adjacent tissues resulting in non-selective photothermolysis. This phenomenon can be used clinically in treatment of xanthelasmata, syringioma and rhinophyma, where you can use controlled coagulation of these structures.

PS13.4

OPTICAL TREATMENT OF PSORIASIS USING LASERS AND LIGHT SOURCES

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Purpose: To evaluate the effect of lasers and intense pulsed light (IPL) systems for the treatment of recalcitrant psoriasis.

Methods: We compared three different treatment modalities: A single, ablative treatment using a CO₂ laser (Sharplan), a single non-ablative treatment targeting the vasculature using a pulsed dye laser (Chromos 585, ICN Photonics), and 3 treatments with 2 weeks intervals with a combination of UV light and visible light using a second generation IPL system (Ellipse Flex, DDD).

22 patients with stable plaque psoriasis were treated with CO₂ laser dermabrasion. Follow-up was 12 months. 11 patients were treated with pulsed dye laser, 585 nm, @ energy: 5 J/cm². Follow-up period was 8-14 months. 15 patients were assigned to Ellipse IPL treatment. Pulse duration 10 ms, energy 14 J/cm².

Results: All patients treated with CO₂ laser responded to the treatment to some degree. 73% of the patients had complete response and 37% had partial response after 12 months. 27% of the dye laser treated patients had complete response, 55% had partial response, and 18% were treatment failures when evaluated after 8-14 months.

Following the IPL treatment, the follow-up period was not completed at the time of abstract submission.

Conclusion: Both ablative and non-ablative optical treatments are effective for the treatment of psoriasis.

PS13.5

DELEGATING LASER TREATMENTS IN A DERMATOLOGICAL LASER PRACTICE

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In several countries the use of medical lasers and optical devices is restricted, and patient treatments can only be performed by medical doctors. In other countries laser and optical therapy can be delegated to specially trained medical personnel. Whether or not legislation endorses medical assistants or nurses to perform laser treatments, it is important that adequate education and training is provided.

Laser therapy is an invasive therapy and adverse effects may occur as in any surgical intervention. Therefore, medical doctors supervising the treatments performed by laser assistants should not only be able to perform the treatments themselves, but should also be able to treat the different kinds of side effects related to the treatments.
A series of different laser and optical treatment modalities will be presented – ranging from depilation treatments, vascular treatments, pigmented lesion treatments, optical skin collagen enhancement, and CO₂ laser skin resurfacing. Also, the management of side effects will be discussed.

In summary, delegating laser and optical therapies requires hands-on education for both the doctor supervising the treatments and for the actual laser operator. A continuing medical education system for laser operators should be enforced by the medical authorities.

PS13.6
LASER TREATMENT OF FACIAL PORT-WINE STAINS
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Although recent improved efficacy in laser treatment of capillary malformations or facial port-wine stains (PWS) recalcitrant lesions remain a major clinical issue. New data have demonstrated clinical efficacy in approximately 50% of patients treated with an intensified pulsed light source (IPL) in reducing facial port-wine stains previously resistant to pulsed dye laser (PDL) treatment. Non-responders have primarily PWS located in V2 area of the face. Hypertrophic and nodular lesions of facial PWS are also treated with an excellent clinical outcome. Several non-invasive methods of investigation have been applied in characterisation of PWS aiming for predicting clinical outcome of subsequent laser treatment. Laser-doppler, reflectance spectrophotometry, high-resolution dermatoscopy and high-frequency ultrasonography have been used for direct or indirect measurements of lesion depth, vessel diameter and blood flow of PWS. The variable lesion depth and vessel size explains primarily treatment resistant lesions. Furthermore, new methods of minimizing side-effects from epidermal damage following laser treatment have been developed, i.e. cooling devices and multiple fractionated pulses. Controversy exists on inducing fluctuant hemoglobin change from a passive chromophore to a more static chromophore from inducing either purpura or deeply coagulation as pretreatment. Future developments in treatment procedures of recalcitrant facial PWS are warranted.

PS13.7
TREATMENT OF PERIORAL RHYTIDS WITH CO₂ LASER AND INTENSE PULSED LIGHT. A CLINICAL CONTROLLED, RANDOMIZED STUDY WITH BLINDED EVALUATION
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Carbon dioxide (CO₂) laser resurfacing is an effective method of skin rejuvenation. However, the rate of undesirable side effects is high and has led to intensified research in the fields of non-ablative procedures, which preserve the epidermis but deliver enough energy to promote rhytid improvement. We compared the efficacy and side effects of CO₂ laser resurfacing and intense pulsed light (IPL) rejuvenation for the treatment of rhytides on the upper lip. Twenty-five female subjects, with moderate wrinkles on the upper lip and Fitzpatrick’s skin type I and II were randomly assigned to receive 1 treatment with CO₂ laser (MedArt® 450 CO₂, laser, MedArt® 456 scanner; ASAH Medico) or 3 treatments at 1-month intervals with an IPL system (Ellipse Flex, DDD). Evaluations were performed by regularly intervals up to 12 month after the final treatment by clinical bedside examinations, blinded evaluations of standardised digital pictures, patients satisfaction and non-invasive measurements. Preliminary results suggest that moderate rhytids on the upper lip can be improved by CO₂ laser and that the efficacy and risk of side effects after IPL rejuvenation do not seems to be comparable to that of CO₂ laser resurfacing.

PS13.8
RETROSPECTIVE STUDY OF LASER AND INTENSE PULSED LIGHT TREATMENT OF HEMANGIOMAS
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Background: Hemangiomas are vascular tumours that proliferate during the first year of life and spontaneously involute during 2–10 years. In the majority of cases no treatment is needed, but when there is a threat for vital organs (e.g. eyes, ear, breathing) or painful ulcerations treatment needs to start quickly.

Methods: In a retrospective study of 83 children referred to the laser unit we investigated the effect of laser therapy to proliferating hemangiomas. We divided the patients in four groups who were treated either with 1) pulsed dye laser (PDL) and systemic prednisolon, 2) PDL and long pulsed NdYAG laser, 3) PDL combined with Intense pulse light (IPL) therapy, while 4) the natural course was studied in patients without the need for treatment. The children were treated either with pulsed dye laser (585/595 nm), with the long pulsed NdYAG laser (532 nm) and with IPL for 2 or more treatments. One group was treated with prednisolon (3–5 mg/kg) as an adjunct to laser therapy. The hemangiomas were evaluated as either growing (1), stationary (2) or in regression (3) by the physical examination. The median observation period was 18 weeks (prednisolon/PDL), 14 weeks (NdYAG/PDL), 21 weeks (IPL/PDL) and 12 weeks for children without treatment.

Results: We found that proliferation stopped and even regressed during laser/IPL therapy, while a more rapid regression was found for patients treated with prednisolon and laser therapy. Spontaneous regression was found for the major part of the untreated hemangiomas leaving 3 stationary out of 27 (11%). Patients in acute need for therapy included children with hemangiomas in the eye region, as well as perioral and perianal hemangiomas. Of seven children with periorcular hemangiomas 4 were treated with a combination of prednisolon and laser therapy, while 3 were treated with laser/IPL only. The nasal/lip hemangiomas were in 4 cases treated with laser only and in 2 patients
with prednisolon and laser therapy. In these cases a clinical effect was seen within a few weeks. Bleeding and ulcerated hemangiomias had a rapid clinical effect within 2–3 treatments with the laser/IPL treatment. This reduced the morbidity and increased life quality for the children. The outcome of laser/IPL treatment was a marked reduction of ulceration, infection, oozing, and pain and it seemed to stop proliferation earlier than normal.

PS14.1 PHOTO PROTECTION
Olle Larkö
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Ultraviolet radiation is the dominating etiological factor for the development of skin cancer. Consequently, various forms of photoprotection treatment are used to decrease the incidence of skin malignancies. Sunscreens seem to reduce the risk of actinic keratosis and possibly squamous cell skin cancer. The relationship between melanoma and sunscreens is more complicated. The basis for photoprotection is clothes. Denim cloth has a sun protection factor of more than 1500. Most clothes give an adequate photoprotection. Sunscreens should be used as a complement to clothes. Sunscreens can be divided into two major categories, chemical and physical. Generally, physical filters give a better protection but the cosmetic properties are poor. In general, the applied amount of sunscreens is too low to achieve a good protection. Also, photodegradation can be a problem. Furthermore, recent studies have shown that percutaneous absorption of sunscreens could be a concern. In the future, sunless tanning might be of interest.

PS14.2 PHOTOTHERAPY
Christer Jansén, Finland

Abstract not available at the time of printing.

PS14.3 PHOTOCARCINOGENESIS
Hans Christian Wulf
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Photocarcinogenesis is extremely well known as the main reason for skin cancer after sun exposure and also well known from PUVA therapy. This is the reason why UVB is merely preferred in the treatment of eczema and psoriasis. In animal studies we have documented that narrow-band UVB (TL01) is more carcinogenic than broadband UVB (TL12) when given in equal erythemogenic doses. Since UV is not only given as a stand-alone treatment, we also have investigated if commonly used pharmacological products in the treatment of eczema and psoriasis is photocarcinogenic when combined with artificial sunlight. We are investigating the relation between different treatment modalities such as Steroids, Protopic, Elidel and Daivonex and sun in hairless mice in an effort to being able to advice patients about the relative carcinogenecity especially in sun-exposed areas. The investigation is still going on but the results will be presented at the meeting.

PS14.4 CLINICAL EXPERIENCE IN PHOTODYNAMIC THERAPY OF NON-MELANOMA SKIN CANCER AT THE NORWEGIAN RADIUM HOSPITAL
Ana Maria Soler
The Norwegian National Hospital, Oslo, Norway

Clinical experience at the Norwegian Radium Hospital with topical PDT of non-melanoma skin cancer, methodological considerations and results from a compassionate use study will be discussed. More than 6000 BCC and AK lesions were treated with M-ALA-PDT in the study, and preliminary follow-up data are presented.

PS14.5 PHYSICAL SUNFILTER INCREASES THE PHOTOSTABILITY OF KETOPROFEN IN A TOPICAL GEL
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3Uppsala University, Department of Medical Sciences, Uppsala, Sweden

The non-steroidal anti-inflammatory drug ketoprofen is photolabile and has often been implicated in photosensitivity reactions. In the present study we investigated whether the addition of a physical ultraviolet filter to a gel formulation with 2.5% ketoprofen could increase its photostability. Different concentrations and quality grades of titanium dioxide were included in the gel and then applied to frosted glass or human skin. After irradiation with ultraviolet light the remaining amount of ketoprofen was chemically assayed using high performance liquid chromatography (HPLC). Degradation of ketoprofen by ultraviolet light decreased in a dose-dependent manner by inclusion of 2%, 4% and 8% titanium dioxide to the formulation. The protection was also dependent upon the quality of titanium dioxide. Photocatalytic titanium dioxide did not protect against the photodecomposition, whereas ordinary grades and especially surface-coated titanium dioxide decreased the decomposition significantly. The increased photostability of ketoprofen was also evident in human skin. Treatment of the skin for 3 hr with ketoprofen followed by irradiation (UVA-dose 11.7 J/cm² and UVB-dose 5.4 mJ/cm²) gave 64–79% higher amounts of ketoprofen in stratum corneum after treatment with the photostabilised gel than after treatment with an ordinary transparent gel. Titanium dioxide may well be of clinical benefit in reducing photosensitivity reactions to ketoprofen.
PS14.6
PHOTODYNAMIC TREATMENT OF ORAL LICHEN PLANUS
Sigrid I Kvaal¹, T Warloe², E Angell-Petersen²
¹Faculty of Dentistry, University of Oslo, Norway
²The Norwegian Radium Hospital, Oslo, Norway

Background: Photodynamic therapy (PDT) has been reported to give relief to some patients with oral lichen planus.

Objective: The intention was to explore PDT with methyl aminolevulinate (MAL) on oral lichen planus.

Method: Six patients with treatment resistant oral lichen planus (OLP) were accepted for this pilot study. The MAL cream is applied topically on the oral mucosa and covered by Dry-Tips® and/or cotton wool rolls for two periods of 15 min with one-hour interval. In vivo surface fluorescence measurements confirmed that MAL was converted to photactive porphyrines in the tissue. Three hours after the first cream application the area was exposed to red laser light (635 nm) at an irradiance of 200 mwatt/cm² for 6 min.

Results: The oral condition gradually improved after the treatment. None of these patients are completely cured after one treatment but five of them show long-term and sustained response. After two years one patient was retreated with MAL-PDT with improved result. Two other sustained response. After two years one patient was retreated with MAL-PDT with improved result. Two other patients relapsed after 3 years but the remaining three patients have not had serious relapses in the follow-up period of 3–4 years.

Conclusion: MAL-PDT may be a treatment option for oral lichen planus. A larger controlled study is in progress.

PS15.2
CLINICAL ASPECTS OF MYCOPLASMA GENITALIUM INFECTION
Carin Anagruss¹, B Loré²
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²Department of Clinical Microbiology, Sweden

Objectives: Limited information is available about the association of Mycoplasma genitalium with cervicitis and female urethritis and also about the important question whether M. genitalium is sexually transmitted.

Methods 1: A number of 445 consecutive women attending the STD-clinic in Falun, Sweden because of symptoms of STD or for a check-up were enrolled in this study. Women co-infected with N.gonorrhoeae and/or C. trachomatis were excluded. Standardized interviews were performed. Samples from urethra, cervix and vagina were examined in microscope. Urethritis and cervicitis were defined as >5 and >30 PMNLs/hpf, respectively.

Method 2: Partner notification was performed in 53 index patients.

Results 1: Of the 445 examined women, 136 had symptoms as well as microscopic signs of urethritis and/or cervicitis. M. genitalium was detected in 15 (11%) of those with symptoms and signs compared to 3 (2.2%) of the 139 women without (p=0.005). Microscopic signs of cervicitis but not of urethritis were seen in 30 women. Of these M. genitalium was detected in 4 (13.3%) compared to 6 (2.6%) of women without (p=0.05). Corresponding figures for 129 women with urethritis but not cervicitis were 11 (8.5%) compared to 6 (2.6%), (p=0.01).

Results 2: M. genitalium was detected in 10 (38%) of 26 examined male partners. Corresponding figures for 22 examined female partners were 10 (45%) infected.

Conclusions: M. genitalium is independently and significantly associated with cervicitis as well as female urethritis in this study.

M. genitalium is sexually transmissible with transmission rate similar to C. trachomatis.

PS14.6
PHOTODYNAMIC TREATMENT OF ORAL LICHEN PLANUS
Sigrid I Kvaal¹, T Warloe², E Angell-Petersen²
¹Faculty of Dentistry, University of Oslo, Norway
²The Norwegian Radium Hospital, Oslo, Norway

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Results: The oral condition gradually improved after the treatment. None of these patients are completely cured after one treatment but five of them show long-term and sustained response. After two years one patient was retreated with MAL-PDT with improved result. Two other sustained response. After two years one patient was retreated with MAL-PDT with improved result. Two other patients relapsed after 3 years but the remaining three patients have not had serious relapses in the follow-up period of 3–4 years.

Conclusion: MAL-PDT may be a treatment option for oral lichen planus. A larger controlled study is in progress.

PS15.1
NON-GONOCOCCAL, NON-CHLAMYDIAL URETHRITIS AND CERVICITIS: THE ROLE OF MYCOPLASMA GENITALIUM
Jørgen Skov Jensen
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Mycoplasma (M.) genitalium was first isolated from 2 of 13 men with non-gonococcal urethritis (NGU) in 1980. It shares several features with M. pneumoniae, a recognised respiratory tract pathogen, but is extremely difficult to isolate by culture. The development of sensitive and specific PCR assays in the early nineties made clinical studies possible and a significant number of publications have shown a strong association between M. genitalium and NGU independently of Chlamydia trachomatis.

The purpose of the lecture is to present the currently available information about the associations between M. genitalium and urogenital tract infections in men and women in relation to the fulfilment of the Henle-Koch postulates.

It is concluded that there is very strong evidence that M. genitalium is a cause of NGU in men and cervicitis in women. Evidence for upper genital tract infections in women has begun to accrue, but further studies are needed. The optimal treatment of M. genitalium infections remains to be determined, but antibiotics of the macrolide group are probably more active than tetracyclines.

PS15.3
VULVOVAGINAL LICHEN PLANUS – CASE REPORTS
Karin Edgardh, AL Helgesen, R Kirschner
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Background: Vulvovaginal lichen planus is an uncommon, sometimes erosive and long-standing manifestation of lichen planus, with onset in fertile years or after menopause. The condition may be combined with erosive oral lesions and stenosis of the oesophagus. When genital mucous membranes are affected, the pain is severe and combined with superficial dyspareunia and desquamative vaginitis. Adhesions and stenosis of the vagina may occur. Surgical intervention of adhesions may worsen the condition, if not...
combined with immunosuppressive treatment.

Material and method: At the Vulva Clinic in Oslo, with a team of gynecologists and dermatologists working in consort, ten patients aged 39–73 years are under treatment for vulvovaginal lichen planus, most of them with erosive lesions of the genital mucosa, and a few with oral involvement. Treatment is provided with intravaginal dilatation and application of hydrocortison, vulvar lesions are treated with clobetasol or tacrolimus, and systemic treatment is attempted with prednisolone, methotrexate or cyclosporine. Chosen cases will be presented with clinical photos and histopathology.

Results: In spite of improvement with systemic and local treatment, remission is rare. With few exceptions, intercourse is not an option for these patients.

Discussion: Vulvovaginal lichen planus is often diagnosed after a long doctor’s delay. Biopsy and rebiopsy is important in order to differentiate the disease from other erosive genital conditions. Scandinavian multi-center cooperation will be discussed.

PS15.4
LONGSTANDING VULVAL PROBLEMS AND DYS PareuniA REPORTED BY STD-CLINIC VISITORS IN OSLO
Karin Edgardh, M Abdelnoor
1The Vulva Clinic, Department of Gynecology, Ullevål University Hospital, Oslo, Norway
2The Centre for Clinical Research, Section for Epidemiology, Ullevål University Hospital, Oslo, Norway

Background: An increasing number of women with vulval complaints attend the Olafia walk-in STD-clinic in Oslo. The aim of the present study was to investigate the prevalence of longstanding vulval problems and entry dyspareunia in a consecutive sample of visitors.

Methods: During two months in 2002, a consecutive sample of female patients completed an anonymous self-administered questionnaire covering risk factors for longstanding vulval itch, soreness and entry dyspareunia. Participation was not connected to the consultation.

Results: 560 questionnaires were distributed, response rate 92.1%. Mean and median age was 25.9 and 24.0 years, respectively. Current vulval symptoms with a duration of at least three months was reported by 23.1% (116/502). Long-standing entry dyspareunia was reported by 6.9%

Independent risk factors for entry dyspareunia were recurrent treatment for candidiasis OR 5.51 [2.30–13.17] and bacterial vaginosis OR 2.34 [1.11–4.92]. Pregnancy, without regard to parity, was a protective factor. Oral contraception, depression and sexual abuse did not constitute risk factors.

Conclusion: Clinical investigation with regard to vulval problems and dyspareunia is required for a large group of STD-clinic patients in Oslo. Referral to a dedicated vulva clinic would be beneficial for a certain cases. The relation between risk factors and causative factors will be discussed.

PS16.1
SKIN CANCER IN ORGAN TRANSPLANT RECIPIENTS: IS PREVENTION POSSIBLE?
Petter Jensen Gjersvik
Tidsskrift for den Norske Lægeforening, Oslo, Norway

Cutaneous squamous cell carcinoma is caused by DNA damage induced by ultraviolet radiation from the sun. Organ transplant recipients are at increased risk of developing squamous cell carcinoma (as well as basal cell carcinoma), probably through an inhibition of tumour rejection and reduction in DNA repair ability by immunosuppressive drugs, most likely through immunosuppression per se, or by non-immune mechanisms.

All organ transplant recipients must be given information on the high risk of skin cancer. Patients especially prone to skin cancer (light skin type, previous and present high sun exposure, previous skin cancer) should be identified. Organ transplant recipients should be encouraged to avoid unnecessary sun exposure and to use sun protective measures (clothes, hats, caps, sun barrier creams with high SPF). Close dermatological surveillance for early diagnosis of premalignant and malignant lesions is essential. In selected cases, treatment with systemic retinoids should be considered.

Better and more contact between dermatologists and transplantation physicians should be encouraged. As the risk of post-transplant skin cancer is related to the degree and duration of long-term immunosuppression, the dosage of maintenance immunosuppressive drugs should be as low as possible. Non-carcinogenic immunosuppressive drugs may be developed in the future. Methods for induction of antigen-specific tolerance to prevent graft rejection may reduce the need for immunosuppression.

PS16.2
DIAGNOSTIC TECHNIQUES FOR NON-MELANOMA SKIN CANCER
Gregor BE Jemec
Division of Dermatology, Department of Medicine, Roskilde Hospital, Roskilde, Denmark

Non-melanoma skin cancer (NMSC) is common. The golden standard for diagnosis is histological examination of biopsies, but in a number of cases additional diagnostic procedures of benefit to the patient and to general patient management. In particular patients in whom NMSC is associated with a number of precancerous lesions would benefit from a more non-invasive approach to diagnosis. A number of techniques exist to aid clinical diagnosis of NMSC, e.g. cyanoacrylate biopsies, high frequency ultrasound, spectroscopy and photodynamic diagnosis. In addition new techniques are being developed such as Optical Coherence Tomography and In vivo Confocal Microscopy. The development of such techniques poses a technical challenge, but may offer considerable practical benefits to both patients and dermatologists.
PS16.3
NEW NON-SURGICAL TREATMENT MODALITIES FOR SKIN CANCER (FUTURE OR FAILURE)?
Olle Larkö
Sahlgrenska Academy, Göteborg University, Göteborg, Sweden

The incidence of skin cancer is steadily increasing. In many cases, the traditional treatment modalities such as surgery and cryosurgery are adequate. Previously, mainly 5-fluorouracil has been used among the non-surgical treatment modalities. The drawbacks were more or less troublesome side-effects. However, new non-surgical treatment modalities have evolved. Retinoids have been used for some years with some success for photoaging. Imiquimod seems to be a promising agent for superficial lesions but the long-term results are not known. Imiquimod has immunomodulating properties. Photodynamic therapy (PDT) is the most studied of the new therapies and new indications are introduced regularly. So far, mainly superficial basal cell carcinomas, actinic keratoses and Bowen’s disease are recommended to be treated. When using PDT, ALA or recently methylated derivatives are used topically, followed by irradiation with red light. The new methylated ALA-derivative (Metvix) seems to induce less pain than the old ALA and the selectivity seems better. Diclophenac for the treatment of actinic keratosis can be questioned until further experience is collected. Patient compliance is an important factor in the treatment success of a premalignant or malignant skin conditions. Treatments that have to be used regularly for several weeks have a disadvantage compared to treatments that involve only one or two sessions. Apart from the efficacy issues, economic considerations have to be made. In the future many more non-surgical treatment modalities will probably emerge.

Conclusions: The ABCD rule remains a practical guide for early recognition of melanoma. Clinicians must be aware of its limitations.

PS16.5
PHOTODYNAMIC TREATMENT OF SUPERFICIAL ORAL SQUAMOUS CELL CARCINOMA
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1Faculty of Dentistry, University of Oslo, Norway
2The Norwegian Radium Hospital, Oslo, Norway

Background: Photodynamic therapy (PDT) with methyl aminolevulinate (MAL) cream has been reported to give relief to some patients with oral lichen planus, but previous reports on oropharyngeal cancers have been nonconvincing.

Objective: The intention was to explore MAL-PDT on superficial oral squamous cell carcinomas (SCC).

Method: Three patients with superficial oral SCC were selected. The MAL cream was applied topically on the oral mucosa and covered by custom made splints and/or cotton wool rolls for 3 h. In vivo surface fluorescence measurements confirmed that MAL had been converted to photoactive porphyrines in the tissue. The affected area was exposed to light from red laser or light emitting diodes (635 nm).

Results: The cancerous areas have healed. The observation period has been from 6–18 months and there has been no recurrence.

Conclusion: MAL-PDT may be a treatment option for superficial oral SCC where the alternative may be destructive surgery. Patients need to be followed closely as repeated treatments may be required.

PS16.4
SMALL DIAMETER MELANOMA
Per Helsing
National Hospital, Department of Dermatology, Oslo, Norway

Background: Melanoma prognosis is dependant upon early recognition and treatment. There is a need for good clinical guidelines that focus on early signs of melanoma. The ABCD rule states that most melanomas are more than 6 mm in diameter. Critics crave a modification, arguing that small diameter melanomas are not infrequent.

Objectives: The aim of the present study was to describe the frequency and prognosis of melanomas less than 7 mm in a clinical setting.


Results: The frequency of small melanomas was 11.4% (18/158). One third was in situ melanoma, the rest invasive with a median thickness of 0.8 mm. Four small melanomas were T2 lesions, with a Breslow thickness of more than 1 mm. One nodular T2 melanoma recurred locally two year after diagnosis and the patient died of distant metastasis only months later.

PS16.6
ESTABLISHMENT OF TELEDERMATOLOGIC DERMOSCOPY SERVICE IN DENMARK – REDUCING MORBIDITY FROM MELANOMA AND DISFIGURING SURGERY OF BENIGN NAEVI
J Smedegaard, M Møller-Pedersen, A Otjkær, Henrik F Lorentzen, K Weismann
1Department of Dermatology, Odense University Hospital, Odense, Denmark
2Dermatological Clinic, Herning, Denmark
3Department of Dermatology, Hørsholm Hospital, Hørsholm, Denmark

Malignant melanoma incidence is increasing and community-based as well as hospital-based dermatologists are progressively more challenged with pigmented skin lesions. Dermoscopy in the hands of formally trained and experienced dermatologists increase diagnostic accuracy as recently reviewed in a large meta-analysis. To reach an expert level of dermoscopy a certain volume of skin lesions have to be assessed on a regular basis and supervision as well as consensus discussions be performed.

The current project was designed as an axis between the departments of dermatology of Odense University Hospital
and Hoersholm Hospital and eight satellites of primary sector based dermatologists. The equipment used was Heine delta 20 dermoscopes attached to a Nikon CoolPix 4500 digital camera. The recording equipment was optimized regarding white balance, shutter, aperture, image resolution and size.

A database fulfilling demands regarding safety (same encryption level as used by financial and banking businesses was used), capacity, graphical user interface (GUI), straightforwardness and intuitivity of use was developed through dermoscopy researchers and software developers.

The relationship-database, in contrast to commercially available solutions, use patient identification data rather than picture data as index fields, which enables corrections to be performed on all graphical data at once rather than through corrections to keyword fields.

In addition to dermoscopy picture the database enables calculations of dermoscopic ABCD rule dermoscopy score as well as assessment according to the risk stratification data. Separate entry sheets for histology diagnoses are incorporated and reliability statistics can be performed on the database.

**PS17.1**

NEW TOPICAL TREATMENTS

Johanna Mandelin

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Topical tacrolimus and pimecrolimus block the activation of T cells, and thus inhibit cytokine production. Both are approved for the treatment of atopic dermatitis, but show efficacy in other skin diseases, too. In psoriasis, tacrolimus and pimecrolimus have shown superior efficacy compared to vehicle treatment. In clinical practice treatment results tend to be much better for thin lesions as compared to thick ones. In a vitiligo study with pediatric patients, tacrolimus ointment showed efficacy only slightly inferior to clobetasol propionate. Published studies in other indications are either uncontrolled or case reports. Small studies and case reports have stated the efficacy of topical tacrolimus and pimecrolimus in seborrhoeic dermatitis. Tacrolimus ointment has also shown efficacy in treatment of mucosal symptoms of various orifices. In a study of erosive/ulcerative oral lichen planus the majority of the patients showed a response to tacrolimus treatment. Case reports also suggest tacrolimus may be effective in treatment of lichen sclerosus, ulcers of the skin, Hailey-Hailey disease and cutaneous graft-versus-host disease.

Imiquimod is a synthetic immune response modifier, which is approved for topical treatment of genital warts. Its central mode of action seems to be the induction of cytokines, such as interferons and TNF-alfa. Small studies and case reports suggest efficacy in the treatment of viral disease such as molluscum contagiosum, and precancerous, or malignant diseases, like vulvar intraepithelial neoplasia, actinic keratosis, Bowen’s disease, and basal cell carcinoma. Resiquimod is another imidazaziquinoline, which in an animal model has diminished the recurrence rate of herpes simplex infections.

**PS17.2**

NEW SYSTEMIC TREATMENTS

Sakari Reitamo, Finland

Abstract not available at the time of printing.

**PS17.3**

TELEDERMATOLOGY ON THE FAROE ISLANDS

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New technologies are often initially presented as comprehensive. After awhile they are usually subjected to criticism, which may be inappropriate, but provides adjustment of perspective and allows them to find their niche in the panoply of clinical medicine. Teledermatology is one such technology. In dermatology it has been argued that its stand-alone function is not satisfactory, and it is therefore suggested that it may be best used as an integral part of a complete referral system rather than as the only conduit for specialist treatment. We describe a system in which teledermatology is used as an adjunct to conventional clinical dermatology. Teledermatology is used to service control or repeat visits for assessment of treatments started in conventional consultations. A review of cases suggests that simple store-and-forward teledermatological e-consultations can replace conventional face-to-face consultations of a significant proportion of routine consultations in this setting.

**PS17.4**

BENEFICIAL CLINICAL AND PHYSIOLOGICAL EFFECTS OF ILOPROST IN PATIENTS WITH ERYTHROMELALGIA

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2Private Practice, Oslo, Norway

Background: Erythromelalgia (EM) is a rare condition characterised by burning pain that is aggravated by warming and relieved by cooling, erythema and increased temperature of affected skin in feet and/or hands. Skin microvascular arteriovenous shunting with insufficient nutritive perfusion and tissue hypoxia ("shunt hypothesis"), attenuated vasoconstrictor responses involving central sympathetic reflexes and deranged prostaglandin metabolism in relation to skin vasculature have previously been reported. The vasodilatory and thrombocyte inhibitory effect of prostanooids (prostaglandins and prostacyclines) may improve nutritive perfusion.

Aims of the study: To determine whether iloprost, a synthetic prostacyclin analogue, improves symptoms and neuropathy in EM.

Material and methods: In a double-blind, randomised parallel-group trial we evaluated the effect of intravenous iloprost (n=8) and placebo (n=4) treatment. The treatment
Plasmapheresis is frequently used to treat severe autoimmune diseases where autoantibodies are implicated. In a subgroup of chronic idiopathic urticaria, autoantibodies directed towards the IgE-receptor are thought to be involved in the pathogenesis. We investigated the effect of repeated plasmapheresis in a group of patients with primarily chronic idiopathic urticaria with disease duration longer than 6 months. Eight of nine patients had histamine-releasing (HR) activity in their serum and all had a positive autologous serum skin test. The patients were characterised by severe disease activity and limited effect of antihistamine therapy.

The study was performed as an open clinical study and disease activity was measured by an urticaria score based on frequency, itch, duration, and number of wheals. Furthermore, the patients underwent clinical examination during the plasmapheresis treatment and a follow-up was performed at the end of the treatment period and one to two years later. During the observation period before initiation the treatment, one patient spontaneously had remission. One patient without serum HR-activity had full remission after six treatments. Two patients had limited, transient effect of plasmapheresis when it was performed with two weeks interval. Five patients had no effect of the treatment. In conclusion, this study showed a limited effect of plasmapheresis on urticaria activity when performed every second to fourth week. The treatment was generally well tolerated and might be a choice in case other systemic treatment is not tolerated.

**PS18.1**

**CONTACT ALLERGY TO OXIDIZED TERPENES, THE “PERFUMES OF PLANTS”**

**Mihály Matura**

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**Introduction:** Monoterpenes are frequently used as fragrance chemicals since they are small volatile compounds with most often pleasant smell, derived from flowers and other natural sources. Less volatile terpenes, sesquiterpenes are also used. Terpenes containing double bounds are prone to oxidation. Among the oxidation compounds found, earlier studies on delta-3-carene identified hydroperoxides being very potent allergens, present in oil of turpentine. Our aim was to study the autoxidation and allergenic activity of the following terpenes and their degradation products: limonene, linalool, caryophyllene and myrcene; to identify allergenic oxidation products and to gain human sensitization data on these compounds.

**Methods:** The fragrance terpenes were exposed to air to mimic normal handling and storage and the oxidation was followed by gas-chromatography (GC). Identification and structure-elucidation of oxidation products were performed by GC-MS, HPLC, NMR spectroscopy. Allergenic activity was investigated in animal studies. Several thousand consecutive dermatitis patients were tested with oxidized terpene mixtures and allergenic fractions in numerous clinical studies.

**Results:** The concentrations of all terpenes started to decrease immediately. 50% of the original compounds remained after 30 weeks for linalool, after 9 weeks for limonene, and after 8 weeks for caryophyllene and myrcene. Among the oxidation products formed, hydroperoxides of...
limonene and linalool were the most significant allergenic compounds. Out of 9000 patients tested 2.2% reacted to any of the oxidized terpenes. A significant correlation in reaction to other fragrance allergens was observed.

**Conclusion:** Fragrance terpenes oxidized easily, resulting in the formation of allergenic degradation compounds and frequent human sensitization.

**PS18.2**

**CONTACT DERMATITIS FROM ESSENTIAL OILS/AROMATHERAPY**

**Edgar Selvaag**
Department of Dermatology, University of Copenhagen, Copenhagen, Denmark

Contact dermatitis to essential oils has long been recognized. Essential oils are widely used; in foods, soft and hard drinks, as flavouring agents in toothpaste, perfumes and cosmetics. Contact with essential oils is possible in medical and especially dermatological treatment; it is used as antiseptics, adstringents, antipruritic tinctures, lotions and pomades. Essential oils are widely used, in food, toothpaste, as flavouring agents in perfumes and cosmetics, and also in dermatological treatment, as antiseptics, adstringents, antipruritic tinctures, lotions and pomades. Due to an increased interest in and use of alternative medicine including aromatherapy, the reports on unwanted side effects are increasing. By demonstration of patients with unwanted side effects and by a review of reported cases, we want to focus on possible unwanted side effects when using essential oils.

**PS18.3**

**PRIMULA, A POSSIBLE SOURCE OF AIRBORNE CONTACT DERMATITIS**

**Lars Porskjær Christensen**
Department of Food Science, Danish Institute of Agricultural Sciences, Aarslev, Denmark

The sensitizing properties of Primula, in particular *P. obconica*, are primarily due to the accessibility of the allergen primin (2-methoxy-6-n-pentyl-1,4-benzoquinone) on the surface of the plant. Primin and related compounds are formed in minute glandular hairs (trichomes), and are accumulated between the cuticula and the cell membrane of the outermost cells. When the cuticula burst, the allergen accumulates as irregular resinous drops on the top and sides of the hair. Therefore contact with Primula species that produce primin always bears risk of sensitization due to (i) direct contact (e.g. removal of plant material), (ii) indirect contact (e.g. handshakes) or (iii) by the release of small plant parts or dust particles containing primin causing airborne contact dermatitis (ABCD). Finally, the direct release of primin from the surface of the plants may elicit ABCD in highly sensitized persons.

The allergen primin and its hydroquinone (miconidin) were collected by dynamic headspace technique from *P. obconica*. The amounts of primin released from unchopped leaves/stems and flowers were 65.3 ng and 18.8 ng/(g fresh plant material)/h, respectively, whereas the amounts released from intact plants were lower (6.2 ng/(g fresh plant material)/h). Miconidin was only released in minute amounts (>0.4 ng/(g fresh plant material)/h) from the different plant parts. The results suggest that primin is an airborne allergen and therefore a source of ABCD. Other potential airborne contact allergens; tulipalin A from Alstroemeria and tulips and sesquiterpene lactones from liverworts and plants of the family Asteraceae will briefly be discussed.

**PS18.4**

**CONTACT ALLERGY TO THE SESQUITERPENE LACTONE CALOCEPHALIN**

**Monica Hindsén**, **LP Christensen**, **E Paulsen**
1Department of Occupational and Environmental Dermatology, Malmö University Hospital, Malmö, Sweden
2Department of Food Science, Danish Institute of Agricultural Sciences, Research Centre Aarslev, Aarslev, Denmark
3Department of Dermatology, Odense University Hospital, Odense, Denmark

**Background:** A 63-year-old female gardener developed eczema on her hands, arms and face. She suspected cushion bush, *Calocephalus brownii* F. Muell, a plant introduced in Sweden by her. This plant belongs to the Asteraceae family.

**Methods:** Patch testing with our standard series, plant series and acetone extract of cushion bush. The predominating sesquiterpene lactone (SL) calocephalin identified in the plant extract was patch-tested in the patient and 20 controls. Calocephalin was isolated from the plant extract of cushion bush by column chromatography and preparative high-performance liquid chromatography (HPLC) and identified by mass spectrometry and nuclear magnetic resonance (NMR) spectroscopy.

**Results:** The patient was negative to the standard series but positive to parthenolide and to the cushion bush extract. Likewise, positive reactions to cushion bush extracts were seen in SL-mix positive but not in negative patients. Parthenolide was not present in the plant extract as shown by gas chromatography-mass spectrometry (GC-MS) analysis, while the guaianolide calocephalin was identified as the major SL. The patient tested positively to calocephalin while the controls tested negatively.

**Conclusion:** The plant cushion bush can cause occupational allergic contact dermatitis and the major contact sensitizer in the plant is the SL calocephalin.

**PS18.5**

**DECREASED MDBGN CONCENTRATION IN A PRODUCT IS COUNTERACTED BY INCREASED EXPOSURE**

**Charlotte Devantier**1,2, **JD Johansen**1,2, **T Menné**2,3, **KE Andersen**1,2
1Department of Dermatology, Odense University Hospital, University of Southern Denmark, Odense, Denmark
2National Allergy Research Centre, Gentofte, Denmark
3Department of Dermatology, Gentofte Hospital, University of Copenhagen, Denmark
**Background:** Some types of cosmetic products such as creams and soaps are commonly used several times a day, especially in occupational use-situations. Little is known about how the daily frequency of application of an allergen in a product influences the allergic response.

**Objectives:** This study investigates the allergic responses elicited in pre-sensitised individuals when exposed to a specific amount of allergen applied either in 1 application per day or distributed over 4 applications per day. As model allergen is used the cosmetic preservative methyldibromo glutaronitrile (MDBGN).

**Patients/Methods:** 19 contact allergic individuals and 12 controls participated in a double-blind, randomized repeated open application test (ROAT) using two coded aqua/ethanol (80:20) solutions preserved with 100 ppm and 400 ppm MDBGN, respectively. 12 cm² areas on the lower arms were applied 2 drops either once daily of the 400 ppm solution or 4 times a day for the 100 ppm solution.

**Results:** Most patients developed dermatitis following application of approximately equal amounts of MDBGN on both arms not distinguishing whether the allergen was applied as a 400 ppm solution once daily or a 100 ppm solution 4 times daily. Controls were negative.

**Conclusions:** Applications with 400 ppm MDBGN once daily or 100 ppm MDBGN 4 times per day had, in a ROAT study, approximately equal capabilities of provoking allergic dermatitis in agreement with well-known patch test data that dose per unit area is more important than concentration of allergen in the product. This may complicate risk assessment and regulation of cosmetic allergens. However, further studies are needed before more general conclusions can be made.

**PS18.6**

**AN INSECT FROM CALIFORNIA, OR 🔅...?**

Jon Anders Halvorsen  
Department of Dermatology, Ullevål Universitetssykehus, Ullevål, Norway

A newly married couple in their early thirties attend the dermatology outpatient 7 days after returning from California. For the last 10 days they have had itchy linear lesions on all extremities and also their trunks. New lesions developed after returning to Oslo. They have brought with them, in a match box, a small fly, 3x4 mm, and are both insistent that the insect is the cause of the rash.

Clinically however the rash resembles allergic contact dermatitis from Rhus, most likely the Poison Oak. Patch testing against Rhus is not available. This presentation will include a short description of Rhus dermatitis caused by Poison Oak, Poison Ivy and Poison Sumac.

**CSS01.1**

**NON MELANOMA SKIN CANCER IN ORGAN TRANSPLANT PATIENTS AND THE USE OF PHOTODYNAMIC THERAPY**

Gregor BE Jemec  
Roskilde Hospital, Division of Dermatology, Roskilde, Denmark

The incidence and prevalence of non melanoma skin cancer (NMSC) is increased in organ transplant patients because NMSC development is influenced by the immune-status of the patient. NMSCs are influenced by the general degree of immunosuppression, and the necessary immunosuppressive therapy following organ transplants therefore acts as a potent iatrogenic tumour promoter in this group of patients. Treatment of NMSC in organ transplant patients remains a challenge. Patients often have multiple tumours, poorly demarcated and interspersed with scarring from previous therapy. Conventional surgery remains the gold standard, but a number of new and less destructive treatments are being developed. Ideally NMSC treatment in organ transplant patients should also be able to treat subclinical lesions, treat larger areas and not only single lesions, and not disrupt the perilesional skin with additional scarring which may make later surgery more difficult. Photodynamic therapy (PDT) is a selective photodestructive process, which targets dysplastic or neoplastic tissue. Provided the photosensitiser is adequately absorbed in the tissue and oxygen is present, the method appears to be able to eliminate subclinical lesions. The practical application of PDT is mainly limited by the size of the light source used and the pain induced by the treatment in some patients. Treatment of larger areas is practically feasible on a routine basis. Finally, PDT does not appear to have long-term side effects, which interfere with subsequent conventional therapy if this should become necessary for the patient. Studies have documented the potential of PDT in the treatment of precancerous as well as cancerous lesions while practical experience suggests that the methods has considerable potential, particularly in complex clinical situations such as NMSC therapy in organ transplant patients.

**CSS01.2**

**PRACTICAL ASPECTS OF PHOTODYNAMIC THERAPY IN DERMATOLOGICAL PRACTICE**

Ida-Marie Stender  
Hudklinikken, Charlottenlund, Denmark

Experience from two years with photodynamic therapy with Metvix in a private dermatological clinic in Copenhagen, Denmark. Practical and economical aspects as well as cases are presented.

**CSS01.3**

**DIFFERENT PROPERTIES OF AMINOLEVULINIC ACID AND METVIX® REGARDING SELECTIVITY TO DISEASED SKIN AND ITS RELATION TO PAIN DURING ILLUMINATION**

Hans Christian Wulf  
Department of Dermatology, University of Copenhagen, Bispebjerg Hospital, Copenhagen, Denmark

5-Aminolevulinic acid (5-ALA) has been used experimentally for several years. Now 5-Aminolevulinic Methylester (ALA-ME) is mostly used in the treatment of actinic keratosis and basal cell carcinoma. Applying these substances to normal skin shows a much higher concentration of Protoporphyrine IX (PPIX) after 5-ALA than after ALA-ME.
also resulting in a considerable difference in pain during illumination, 5-ALA being considerably more painful than ALA-ME PDT. Applying these substances to diseased skin indicates a nearly even concentration of PPIX for both drugs when the skin is heavily affected and a clear difference in less affected skin. The more equal the amount of PPIX, the more equal the pain will seem to be. Not only are there differences in PPIX in unaffected skin but 5-ALA also propagates outside the treated area, whereas PPIX formed after ALA is strictly concentrated to the treated area. Pain during illumination is in about 50% a problem for the patient. Most painkillers are not efficient in treating this pain, however, cooling of the skin may lower the pain level considerably, however, at the same time prolonging the irradiation time before PPIX in the tissue has faded. It is, however, possible to compensate for this delayed fading by increasing the light dose.

**CSS01.4**

**CLINICAL EXPERIENCE WITH PHOTODYNAMIC THERAPY USING METVIX® IN THE TREATMENT OF BASAL CELL CARCINOMA**

Ann-Marie Wennberg

Sahlgrenska Universitetssjukhus, Göteborg, Sweden

Photodynamic therapy (PDT) involves the activation of a photosensitizer by visible light to create cytotoxic oxygen species, which lead to cell death. Recently a new and highly selective topical photosensitizer containing methylamino-levulinate (MAL) has been approved for use in actinic keratosis (AK). Five phase III studies have been conducted in Europe, Australia and the US to document the safety and efficacy of MAL PDT in the treatment of AK. MAL PDT has been compared to placebo PDT and to cryotherapy in two studies each. Three dosing regimes have been studied: single treatment only, single treatment with the option to retreat after 3 months, and two treatments one week apart. The response rates 3 months after treatment (pooled data) are:

<table>
<thead>
<tr>
<th>Lesions</th>
<th>Metvix Treatment</th>
<th>Cryotherapy</th>
<th>Placebo PDT</th>
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<tbody>
<tr>
<td>CR (%)</td>
<td>Single session</td>
<td>Two sessions</td>
<td>Liquid nitrogen spray</td>
</tr>
<tr>
<td>MAL PDT</td>
<td>89%</td>
<td>92%</td>
<td>71%</td>
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<tr>
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<tr>
<td>MAL PDT</td>
<td>92%</td>
<td>94%</td>
<td>89%</td>
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MAL PDT was shown to have superior efficacy when compared to placebo PDT. Single treatment PDT was as efficacious as cryotherapy, whereas both MAL PDT given in two sessions one week apart and single session with the option to repeat had superior efficacy to cryotherapy. In all studies MAL PDT had significantly better cosmetic outcome than cryotherapy, MAL PDT was well tolerated and preferred by patients. These data show that MAL PDT is an efficacious, well-tolerated treatment option for patients with AK, particularly in cosmetically sensitive areas.

**CSS01.5**

**CLINICAL EXPERIENCE WITH METHYL AMINO-LEVULINATE IN PATIENTS WITH AKTINIC KERATOSIS**

Mikael Tarstedt

Department of Dermatology, Karlstad, Sweden

Photodynamic therapy (PDT) involves the activation of a photosensitizer by visible light to create cytotoxic oxygen species, which lead to cell death. Recently a new and highly selective topical photosensitizer containing methylamino-levulinate (MAL) has been approved for use in actinic keratosis (AK). Five phase III studies have been conducted in Europe, Australia and the US to document the safety and efficacy of MAL PDT in the treatment of AK. MAL PDT has been compared to placebo PDT and to cryotherapy in two studies each. Three dosing regimes have been studied: single treatment only, single treatment with the option to retreat after 3 months, and two treatments one week apart. The response rates 3 months after treatment (pooled data) are:

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<td>Two sessions</td>
<td>Liquid nitrogen spray</td>
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<td>MAL PDT</td>
<td>89%</td>
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<td>MAL PDT</td>
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<tr>
<td>MAL PDT</td>
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<td>94%</td>
<td>89%</td>
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MAL PDT was shown to have superior efficacy when compared to placebo PDT. Single treatment PDT was as efficacious as cryotherapy, whereas both MAL PDT given in two sessions one week apart and single session with the option to repeat had superior efficacy to cryotherapy. In all studies MAL PDT had significantly better cosmetic outcome than cryotherapy, MAL PDT was well tolerated and preferred by patients. These data show that MAL PDT is an efficacious, well-tolerated treatment option for patients with AK, particularly in cosmetically sensitive areas.
CSS03.1
CLASSIFICATION AND TREATMENT OF MASTOCYTOSIS
Peter Valent
Department of Internal Medicine I, Division of Hematology and Hemostaseology, Vienna University Hospital, Vienna, Austria

The term mastocytosis denotes a heterogeneous group of disorders characterized by the abnormal growth and accumulation of mast cells (MCs) in one or more organ systems. Clinical symptoms occur from release of chemical mediators or pathologic infiltration of MCs. Cutaneous mastocytosis is a benign disease confined to the skin, and often regresses spontaneously. In contrast, systemic mastocytosis (SM) is a clonal persistent disease of myelomastocytic progenitors. In a majority of SM-patients, the somatic c-kit mutation D816V is detectable. The clinical course in SM is variable. Many patients remain in an indolent stage over decades. In a smaller group, however, aggressive SM (ASM) is diagnosed. Other patients develop an associated clonal hematologic non-MC-lineage disease (AHNMD). MC leukemia (MCL) is a rare SM-variant characterized by leukemic spread of MCs and rapid progression. Patients with indolent SM are treated with mediator-targeting drugs, but not cytoxic drugs. In contrast, patients with ASM or MCL are candidates for cytoxic therapies including interferon-alpha, 2CdA, and polychemotherapy. In patients with SM-AHNMD, SM should be treated as if no AHNMD is present, and AHNMD as if no SM had been diagnosed.

CSS03.2
THE PATHOPHYSIOLOGY OF ITCH
Malcolm W Greaves
Department of Dermatology, Singapore General Hospital, Singapore

The neuronal pathways and regulatory receptor mediated central checks and balances for itch are now better recognised. We have recently obtained new, direct evidence of involvement of opioid peptides in cholestatic and renal pruritus. This, together with our recently proposed pathophysiology - based classification of itch (Lancet 361, 690, 2003) has enabled evaluation of new therapeutic approaches. These include μ-opioid receptor antagonists alone or in combination with κ-opioid agonists, immunomodulators and serotonin antagonists and inhibitors. In practice, the importance of a detailed (in quality, time and space) history taking is emphasised, and the use of a standardised (e.g. Ependorff or STITCH) questionnaire recommended.

CSS03.3
ANTIHISTAMINES: PRESENT STATUS AND FUTURE OPTIONS
F Estelle, R Simons
University of Manitoba, Canada

H1-antihistamines are first-line medications for relief of itching and other symptoms in allergic skin disorders in which histamine is a major chemical mediator of inflammation. In urticaria, the evidence base for H1-antihistamine use as first-line treatment is solid. In other skin disorders, including atopic dermatitis, their use is somewhat controversial. New, clinically relevant information about H1-antihistamine molecular basis of action, clinical pharmacology, and potential adverse effects has recently been published. First-generation H1-antihistamines block the neurotransmitter effect of histamine in the central nervous system (CNS), and may impair cognitive and psychomotor performance even in the absence of drowsiness or sedation. Second-generation H1-antihistamines have improved safety profiles and should be used in preference to their older counterparts. Worldwide, regulatory agencies have focused less on the potential CNS toxicity of first-generation H1-antihistamines and more on the potential cardiac toxicity of H1-antihistamines. Most novel H1-antihistamines developed in the past two decades are related to medications already existing in the class; for example, they are metabolites (desloratadine/orotadine, cetirizine/hydroxyzine, and fexofenadine/terfenadine) or enantiomers (levocetirizine/ cetirizine). The gene encoding the human H1-receptor has been identified and polymorphisms have been found. It is possible that true third-generation H1-antihistamines will be designed in the future (Simons FER. H1-antihistamines: more relevant than ever in the treatment of allergic disorders. J Allergy Clin Immunol 2003;112:S42-52).

CSS04.1
COMPLIANCE AND SUPPORT TO THE ACNE PATIENT
William J Cunliffe
The Skin Research Centre, Leeds University, UK

Dermatologists have an established way of discussing acne with their patients.

Obviously there are variations of clinical practice between doctors. It is also likely that the time available for consultation will dictate the extent to which the causes of and treatment options for acne are discussed.

Some doctors, possibly many doctors do not consider certain aspects which the patient perceived to be important. The first half of the presentation will discuss this issue based on a survey of the acne support group. This survey highlighted certain aspects which are probably wordy of doctors considering.

The survey demonstrated that some doctors are not as sympathetic about the acne problem as patients perceived they should be. Some doctors do not have adequate amount of time to discussing issues with the patient and therefore some patients concerned that the dermatological nurse may be in a better position to counsel the acne. Indeed in the UK there are now established nurse-led clinics in several dermatological subspecialties including acne.

The survey highlighted not only the considerable over all psychological problems caused by the disease but it also highlighted certain issues which doctors may at times not discuss with the patients. Such issues include:

• the difficulties of employment,
• underachieving at work because of her acne,
• the problems that the younger patients have at school,
• male patients have problems shaving,
• the observation that the acne will influence the choice of holiday destination and the unwillingness for patients to wear certain swimwear.

The second part of the presentation will highlight compliance issues in acne. Poor compliance is a major problem in many chronic disorders. A study from Leeds has confirmed that acne is no exception. It showed that:
• patients taking oral isotretinoin complied better than those taking other treatments,
• compliance on a second course of oral isotretinoin complied less than on the first course,
• Individuals who smoked and drunk considerable alcohol complied less well.
• Unfortunately there was a negative correlation between the psychosocial status of the individual and compliance. This indicates that the more the disease affects the patient’s life and lifestyle then the less well they will comply.

In conclusion just how patients feel about the acne needs to be addressed by the profession as does the issue of compliance.

CSS04.2
ANTIBIOTICS IN ACNE AND ROSACEA
Vincenzo Bettoli
Department of Dermatology, Azienda Ospedaliera Arcispedale S. Anna, University of Ferrara, Ferrara, Italy

Acne is a multifactorial skin disorder and the pathophysiologic components are seborrhoea, altered follicular keratinization, P.acnes growth and inflammation (1). Recent studies suggest that inflammatory events, usually considered as the last aspect of the sequence, are also present in the very earliest stages of acne lesion development (2). The most effective clinical outcome in acne is obtained when the maximum number of pathophysiologic factors is targeted by the treatment hence combination therapy is advisable.

Antibiotics, both oral and topical, are largely recognized as a mainstay in the treatment of acne. Their use is widely diffuse around the world. The mechanism of action is both antibacterial (reduction in P.acnes count) and non-antibacterial (anti-inflammatory/immunomodulatory effects), hence two out of four pathogenic factors are directly counteracted.

Many guidelines on acne therapy have been published over the years. The most recent consensus recommendations are of the "Global Alliance to improve outcomes in acne" has confirmed that acne is no exception. It showed that:

- Many kinds of antibiotics may be used but cyclines form the cornerstone of oral antibiotic therapy in acne patients. Preferring cyclines to macrolides, clindamycin, co-trimoxazole, trimethoprim and quinolones is based mostly on efficacy, safety and P.acnes antibiotic resistance. Second generation cyclines (lymecycline, doxycycline, minocycline) should be preferred to first generation cyclines (tetracycline HCl, oxytetracycline) because of pharmacokinetics advantages. Based on safety profiles doxycycline and lymecycline should be preferred to minocycline. Lymecycline and doxycycline have rare side effects but the latter has dose-dependant phototoxicity. The choice between them depends on the exposure to either natural or artificial UV. Minocycline has rare but severe side effects. The advisable dosage of lymecycline should be 300 (600) mg daily, 100 (200) mg daily for doxycycline and minocycline and 1 g daily for first generation cyclines. The duration of the treatment should be 3 months but in case of persisting clinical improvement it may be continued longer.

Oral antibiotics should be used on moderate papular/pustular and nodular acne as a first choice and on severe nodulo-cystic conglobate acne as an alternative to oral isotretinoin (3).

Antibiotics used in acne are often effective in the treatment of rosacea (4). The exact mode of action is not well understood, probably they work through an anti-inflammatory activity. Erythromycin as topical and cyclines as systemic treatment seem to be the preferred ones.

References

CSS04.3
PELVIC INFLAMMATORY DISEASE – TETRACYCLINES IN CHLAMYDIA
Birger Møller
Department of Obstetrics and Gynaecology, Odense University Hospital, Odense, Denmark

Pelvic inflammatory disease (PID) is an infection of the upper genital tract in females, i.e. infection of the endometrium in the uterine cavity, of the fallopian tubes, parametria, and also in some cases oophoritis, perihepatitis, periappendicitis etc.

In almost all cases of PID, the infection starts in the lower genital tract and spreads to the upper part by canalicul spread from the cervix via the cervical canal and the uterine cavity to the inner layers of the tubes (endo-salpingitis), or by lymphogen/hematogen spread from micro-lesions in the cervical epithelium to the parametria and the outer layers of the fallopian tubes (exo-salpingitis). PID only occur among sexually active women. In most cases the inflammation is double-sided.

The symptoms of PID vary. In an unknown – but probably rather frequent – number of cases, the inflammation is asymptomatic (silent inflammation). The classic symptomatology of PID is lower abdominal pain, rise in body temperature, increased vaginal discharge and at pelvic examination pain by motion of the uterus. At vaginal inspection the cervix appears inflamed. The SR and CRP are normally increased.

Chlamydia trachomatis is the most common aetiologic agent of PID and accounts for 30-50% of all cases. Neisseria gonorrhoeae may also cause upper genital infection, but at...
the moment is rarely seen in Scandinavia. Mycoplasmas, especially M. hominis and M. genitalium, seem to be aetiologic agents in a number of cases.

Complications of PID are first of all lesions of the epithelium of the Fallopian tubes, increasing the risk of ectopic pregnancy and sterility. Chronic abdominal pain and dyspareunia may also occur as complications of PID. Effective antibiotic treatment is important to reduce sequelae from upper genital tract infection in females.

CSS05

INTRODUCTION TO THE SYMPOSIUM

Kristian Thersrup-Pedersen
Professor of Dermatology, University of Aarhus, Aarhus, Denmark. Consultant, King Faisal Specialist Hospital, Riyadh, Saudi Arabia

Despite much research performed over the last 100 years, we are still not understanding atopic eczema, which is the most common, chronic illness of children in the industrialized world today. Up to 20% of children in Nordic countries are affected by the disorder – with a disease course for up to several years. Will the new treatment options with topical immuno-modulators lead to a significant change of the course of atopic eczema? This is one of the focuses of this Fujisawa symposium. We will have reviews on what is needed as the ‘golden standard’ for controlling atopic eczema, its ‘natural course’ as we know it here in 2004, the clinical evidence stemming from thousands of patients treated with Protopic® including a ‘head-to-head’ comparison with the other compound among TIMs (Elidel®). There will also be considerations on Protopic® and its ‘off-label’ use. I invite all participants to come and take active part in the discussions following these interesting lectures.

CSS05.1

WHAT DO I NEED FOR TREATING MY PATIENTS WITH ATOPIC ECZEMA?

Ove Bäck
Department of Dermatology, University of Lund Hospital, Lund, Sweden

A useful tool is a standardized protocol making sure that most aspects of the disease is taken care of from the beginning. This protocol includes the UK Working Party criteria for atopic eczema (AE), recordings of the affected body areas, a severity index according to Rajka and Langeland as well as a VAS scale for patient’s global assessment of disease severity. Heredity of atopic diseases as well as past or present allergic rhinitis or asthma is recorded. A list of medications including those for respiratory allergy is registered. In order to identify relevant trigger factors a laboratory work up is performed. This will include a skin prick test for air-borne allergens, preferred before a Phadiatop. If total serum IgE > 100 kU/L, tests for specific IgE for Malassezia, Candida, Dermatophagoides, SEA, SEB and TSST is often rewarding and will permit at more targeted prevention or therapy. Topical treatment with intermittent potent steroids and topical immunomodulators persuing a detailed treatment protocol will benefit most patients. UV serial treatments is recommended for patients with generalized eczema. When appropriate, topical ketoconazole and/or antimicrobial therapy is prescribed together with mattress covers for reduction of house dust mite exposure.

CSS05.2

THE COURSE OF ATOPIC DERMATITIS – HOW BAD IS THE PROGNOSIS?

Anne Braae Olesen
Department of Dermatology, University Hospital of Odense, Odense, Denmark

Atopic dermatitis (AD) affects 15 to 20% of all children in developed countries. Knowledge of the mechanisms behind the disease is growing. However, ‘Will the child grow out of AD?’ is poorly answered. Many studies of generally low quality have described the clinical course of the disease. A few population-based studies consistently report that most children with AD can be categorized to have a mild to moderate disease (65 to 94%). An older British community-based cohort study estimates that 65% of children who had eczema at 7 years were clear at 16 years of age. Very little is known about the long-term prognosis. So far follow-up studies suggest that early onset, widespread disease in early life and concomitant asthma and/or hay fever may be predictors of persistent disease. It has been reported that 55% of all hospitalised children with AD later developed hand eczema. The loss of night sleep and social stigma of visible skin disease among severe cases calls for effective treatments that may not only reduce symptoms and signs of AD but also alter the course of the disease. Breastfeeding and probiotics are the only interventions that so far have produced some evidence of primary prevention of AD. Long term follow-up studies with well-defined outcome measures and randomised controlled trials are mandatory in order to qualify the answers concerning the course and prognosis of AD.

CSS05.3

TACROLIMUS OINTMENT (PROTOPIC®) - THE CLINICAL EVIDENCE IN 2004

Sakari Reitamo
Department of Dermatology, Helsinki University Central Hospital, Helsinki, Finland

Topical corticosteroids show good short-term efficacy, but long-term control of atopic dermatitis (AD) is often not achieved especially not in patients with more severe disease. They are used intermittently because of suppressive effects on collagen synthesis. Tacrolimus ointment can be used for long-term treatment of AD without suppressive effects on the skin. With tacrolimus ointment monotherapy, a reparative effect on the skin can be found after long-term treatment, with an increase in collagen synthesis which results in normalization of skin thickness. This can be seen even in patients with simultaneous treatment with inhaled corticosteroids for bronchial asthma. In two comparative studies tacrolimus ointment 0.03 and 0.1% showed superior efficacy compared to pimecrolimus cream 1% in children with AD. There was no statistical differences in the number of patients with burning during treatment. Short-term adverse events of tacrolimus ointment include burning,
stinging, increased itching, and a slight increase in herpes simplex infections. In long-term studies adverse events with topical corticosteroids and tacrolimus ointment are similar. Recall antigen testing shows an increased number of patients with positive test reactions, an increase in Merieux score, and in the number of positive antigens. This suggests a normalization of Th1 cell functions. In agreement with these observations, there is a decrease in staphylococcal colonization, and in viral infections. No suppressive effects on vaccination have been observed. Most importantly there has been no increase in the number of non-melanoma skin cancers. Treatment with Protopic shows several advantages compared to topical corticosteroids.

**CSS05.4**

**EXTENDED CLINICAL EXPERIENCE WITH TACROLIMUS OINTMENT (PROTOPIC®)**

*Anita Remitz*

Department of Dermatology, Helsinki University Central Hospital, Helsinki, Finland

In addition to atopic dermatitis, tacrolimus ointment (Protopic,) could be useful for the treatment of many other skin diseases as well. A placebo-controlled study has shown the efficacy in psoriasis plaque assay, in which treatment was under occlusion. In this model tacrolimus ointment was slightly superior to calcipotriol, but less efficient than betamethasone valerate. In a clinical study with plaque type psoriasis, tacrolimus without occlusion was inferior to calcipotriol and only comparable to vehicle treatment. However, several studies suggest that tacrolimus may be an effective treatment of facial psoriasis, and possibly other regions with thin skin. In vitiligo of children, tacrolimus ointment has been almost as effective as clobetasol propionate. A placebo treatment was not included into this study. Another important indication for tacrolimus ointment could be seborrhoic dermatitis, and possibly other types of eczema. Several open studies suggest that tacrolimus ointment may be effective in erosive oral lichen planus. Smaller studies or single case reports have shown efficacy of tacrolimus ointment in lichen sclerosus, pyoderma gangraenosum, rheumatoid ulcers, Hailey-Hailey disease, and bullous pemphigoid. In chronic cutaneous graft-versus-host disease tacrolimus ointment has been used to extend the time to PUVA treatment. Case reports have been published on tacrolimus ointment in lichen striatus, morphea, rosacea, facial lupus erythematosus, and mucous pemphigus and pemphigoid. Tacrolimus should not be used for mastocytosis of the skin, as it might aggravate the disease.

**CSS06.2**

**EVIDENCE-BASED MANAGEMENT OF PSORIASIS**

*Knut Kragballe*

Department of Dermatology, Marselisborg Hospital, Aarhus University Hospital, Aarhus, Denmark

Psoriasis affects 1–3% of the world’s population and is evenly distributed between men and woman. Prevalence is higher in the Nordic countries due to the cold climate. During the last decade, a variety of treatment modalities have found their place in the treatment of chronic stable plaque type psoriasis. Depending on the clinical type and the severity grade, a wide spectrum of therapeutic agents and treatment modalities is available. In the Nordic countries, stable psoriasis with a low PASI- score will normally be treated with either potent or super potent corticosteroid, vitamin D derivatives or by UVB. The more severe type of psoriasis will frequently be treated with a combination of the above-mentioned therapeutic agents. Severe plaque psoriasis is often treated with a combination of vitamin D derivatives, MTX, cyclosporin A or light treatment. By reviewing existing data from clinical trials mainly covering topical treatment modalities, this presentation will give you the evidence or lack of evidence. This could be useful in choosing the most adequate treatment for your patients.

**CSS06.3**

**PATIENT EDUCATION IN ATOPIC ECZEMA – WHAT DO PATIENTS KNOW AND WHAT DO THEY WANT?**

*Elisabeth A Holm, GBE Jemec*

Division of Dermatology, Roskilde Hospital, Copenhagen University, Roskilde, Denmark

Atopic eczema (AE) is a chronic disease, with frequent relapses and an extremely pruritic condition with continuous scratching. The disease puts a special burden on patients and affects the whole family. To improve long-
term outcome in the management of AE, it is important to treat the symptoms but also to support patients and their families in dealing with a chronic disease. An effective treatment of AE is dependent upon good management by the patients/parents. It has been suggested that patients who are better informed of the appropriate treatment of their disease may have a higher quality of life, compared to less knowledgeable patients. It seems possible to encourage and improve compliance through regular follow-up visits, good patient-physician relations and patient education. Several studies have found that activation, information and education have been successful in the treatment of AE. Staab et al. carried out a training programme of six group sessions of 2 h each, which covered medical, nutritional and psychological issues. They found significant effects regarding treatment behaviour and reduced ruminating, which is an ineffective coping strategy. We have in a cross-sectional study among members of The Danish Atopic Eczema Association examined the possible correlation between patients’ level of self-reported knowledge about AE, the self-reported severity of their disease and the impact of quality of life. Additional data was obtained about the sources of information used and expectations to eczema school programmes. Data will be presented, and discussed in relation to general patient management and eczema schools.

CSS06.4

ASPECTS ON ALLERGIC CONTACT DERMATITIS

Magnus Bruze
Department of Occupational and Environmental Dermatology, Malmö University Hospital, Malmö, Sweden

To arrive at a diagnosis of allergic contact dermatitis is a 3-step procedure; i.e. (i) establishing of contact allergy, (ii) demonstration of present exposure to the sensitizer, and (iii) assessment of clinical relevance. For establishing of contact allergy we still have to rely on patch testing. The outcome of the patch test is dependent on factors such as dose applied of the sensitizer and test reading days. Sometimes exposure to the sensitizer is obvious, other times information can be obtained from labels of products or material safety data sheets. Besides direct skin contact with the sensitizer, one has also to consider the possible significance of systemic exposure to the sensitizer. When there is a present exposure to a sensitizer, there are mainly 2 factors which will help determine whether a dermatitis will appear in an individual. One factor is the degree of reactivity (strength of contact allergy) and the other is dose of the sensitizer in the skin. herefore, patch testing with dilutions of the sensitizer is helpful but difficult to carry out for most dermatologists. ROAT studies in groups of patients can have provided information on the general relevance of exposure to the sensitizer in certain types of products. For the patient under investigation a usage test with the product containing the sensitizer and suspected to be the culprit of the dermatitis can help determine the clinical relevance of the contact allergy, particularly if the usage test simulates the ordinary use of the product.

CSS06.5

CLINICAL DERMATOLOGY. A POWER VOTE SESSION

Niels K Veien
Dermatology Clinic, Aalborg, Denmark

In this interactive session, individual cases or clinical problems in dermatology will be briefly presented. The audience will then be asked to answer questions related to each presentation by casting an (anonymous) electronic vote. Voting results and current literature will form the basis for a discussion of each case.

C01

DERMATOSCOPY

Kaare Weismann1, Henrik F Lorentzen2
1Department of Dermatology, Hørsholm Sygehus, Hørsholm, Denmark
2Department of Dermatology, Odense University Hospital, Odense, Denmark

Dermatoscopy is based on the following principles: Magnification (usually X 10), illumination and avoidance of reflection from the skin surface. It is obtained by applying a clear fluid (immersion oil, isopropyl alcohol) between the scopes glass plate which is pressed against the skin surface to produce local anaemia. As an alternative to linkage fluid, a polarized light source can be used. By dermatoscopy it is possible to study the pigmentation pattern in the epidermis and upper part of dermis. Various dermatoscopes are available today. A simple alternative is an acrylic globe magnifier which assembles ambient light directed at the skin surface, which is the focal point.

The basic principles and parameters of dermatoscopy are presented. Dermatoscopy of congenital and acquired melanocytic naevi, atypical (dysplastic) naevi, blue naevus, cutaneous angioma, seborrhoeic keratosis and basal cell carcinoma are shown. Malignant melanoma (superficial spreading melanoma, nodular melanoma, acrolentiginous melanoma, amelanotic melanoma ) and lentigo maligna are discussed in detail. Nail dermatoscopy will be included.

A booklet with basic principles of dermatoscopy will be handed out.

Various systems for grading the potential risk of malignancy of pigmented skin lesions have been developed. The course will discuss pros and cons of the methods, especially the ABCD score system (by Stolz ) and the Risk Stratification Method (by Kenet). Statistical methods including the ROC (receiver operating characteristic) curve are discussed.

A 1- hour test series of pigmented skin lesions and ”mimickers” will be performed, whereby the participants will be able to evaluate their performance in dermatoscopy.

It is the aim of the course to improve dermatoscopy in daily clinical practice, with the primary purpose of reducing unnecessary excisions of benign naevi and improving the diagnostic accuracy of malignant melanoma.

C02.1

ORAL AND WRITTEN PATIENT INFORMATION

Marit Kirkevold
Institute of Nursing Science, University of Oslo, Norway & Institute of Nursing Science, University of Aarhus, Denmark

Patient education is getting increasingly important, in line with higher levels of out-patient treatment, increasing expectations of self-management, more chronic and long-term diseases, better educated patients and higher demands of efficiency. The goals of patient education are diverse and depend on the condition, situation and context of the patient. It varies in terms of focus, content, form, intensity and duration. Most of the research on patient education is clinical in nature and focuses on information needs in different situations and on different means of providing oral and written information. The research is carried out from diverse theoretical perspectives or, in many instances, lacks a clear theoretical foundation. This presentation provides an overview of central theoretical perspectives from which to approach patient education, focusing particularly on issues related to the provision of oral and written information. In addition, the paper reviews the evidence available to support the planning and conducting of patient education programs.

C02.2

ORAL AND WRITTEN INFORMATION TO YOUTH ABOUT SEXUAL TRANSMITTED DISEASES

Oddbjørg Stensland
Ward for Sexual Transmitted Diseases, Haukeland University Hospital, Bergen, Norway

Studies have shown that young people in Norway don’t use condoms as often as other youngsters in Europe. In order to prevent young people from having HIV or other sexually transmitted diseases (STDs), it is necessary and important to work with information and education. This is the reason the ward for sexual transmitted diseases have made a pamphlet to present the youth, who come to a check-up on STDs. The pamphlet is about the ward and the kind of service the ward offers. This pamphlet is now in use at the ward for Sexual Transmitted Diseases, Haukeland University Hospital. Written patient information only plays a minor role.

C02.3

PATIENT INFORMATION: FAILURES AND THE NEED OF NEW CONCEPTS

Jørgen Serup

A WHO program recently concluded that about 50% of patients do not take their medicines correctly, and non-compliance is worldwide a major burden and challenge in the health sector, both with respect to the quality of care and health costs. Application of creams and ointments by patients themselves are particularly difficult, and it is estimated that only about 20% of dermatology patients conduct proper home treatment. Thus, non-compliance is especially important in dermatology and a major reason of treatment failure. Proper self-treatment depends on relevant prescription to the individual patient and concordance between patient and doctor about the treatment plan. The problem is complex and best studied by qualitative research methods additional to traditional questionnaire based studies. The many variables related to the patient, the treatment and the disease determine non-compliance. This role has recently assessed in a focus group study in South-Eastern Sweden. Written patient information only plays a minor role. The session will address new strategies to inform patients and influence their behaviour with the aim to improve the efficacy of self-treatment with topical therapies.


C02.4

WHAT KIND OF KNOWLEDGE GENERATES PATIENTS’ ACTIONS? – AN EMPIRICAL STUDY IN RELATION TO ALLERGIC CONTACT DERMATITIS

Eline Noiesen, T Agner, K Larsen
1The National Allergy Research Centre for Consumer Products, Gentofte, Denmark
2Department of Education, University of Copenhagen, Copenhagen, Denmark

During the last two decades the incidence of contact allergy to preservatives in consumer products has increased. It is of crucial importance for the prognosis that sensitised patients avoid contact with the allergens, and they are informed how to take precautions, e.g. by reading the descriptions of contents on consumer products. Discrepancy between ‘doctors orders’ and patients’ actions is often taken as an expression of patients’ lack of knowledge. However, sociologically inspired studies show that differences in social experiences and in social life circumstances non-consciously lead to socially different ways of coping with illness. This study investigates in a sociological perspective, how people handle contact allergy in everyday life and the social genesis of their actions. Interviews were carried out with 8 women selected according to medical and sociological criteria. The study indicates that patients with contact allergy comply with ‘doctors orders’ in different ways depending on patients’ resources, possibilities and social class. The study also indicates, that information given by health staff to a considerable extent is directed to patients from the higher social classes, who possess the ability to read the linguistic difficult names of the preservatives and to a lesser extend to patients from lower social classes, who does not possess this ability.
C03

DERMATOPATHOLOGY COURSE

Course Director: Ole Clemmensen, Denmark

The course is intended for dermatologists with an interest in dermatopathology, but even dermatologists without basic knowledge of or training in this field may benefit from the course, since the main stress will be on the significance of clinical pathologic correlation.

The course will mainly address inflammatory dermatosis and shall be orchestrated as a slide seminar comprising 12 selected, instructive cases, which will be critically reviewed and enthusiastically discussed clinically and histopathologically in a 90 min session on Saturday from 10.30–12.00 by a panel of experienced dermatopathologists and dermatologists.

Three identical sets of the microscopic slides covering the twelve cases are available for preview at 36 microscopes from Thursday 6 at 14.00 till Saturday 8 at 17.00 during the opening hours of the Congress. Previewing of the slides and attendance at the course on Saturday are both free and open for everyone.

A handout summarizing the features of the 12 cases shall be available just before the course.

You are cordially invited to participate in this interactive, exiting event.

P01.1

COMPARISON OF HISTAMINE RELEASE TEST AND AUTOLOGOUS SERUM SKIN TEST IN THE DIAGNOSIS OF AUTOIMMUNE CHRONIC URTICARIA

Heli Hyry, P Elg, A Ranki
Helsinki University Central Hospital, Helsinki, Finland

Autoimmune chronic urticaria, in which autoantibodies against the high-affinity IgE receptor Fc epsilon R1 arise, is routinely diagnosed using the autologous serum skin test (ASST). However, the medication used by these patients restricts the use of the ASST. A commercial histamine release test (HR-Test, RefLab, Denmark) has become available. Serum aliquots from 10 patients with chronic urticaria and no underlying infections or other diseases were frozen and sent to RefLab. Diluted samples were incubated with dextran-sedimented basophils from one donor and histamine release of over 12% was considered positive. To our knowledge, differences between the ASST and the HR-Test have not been published. We studied ten patients with chronic urticaria with both the ASST and the HR-Test. The sera of 4/10 patients showed a positive HR-Test result while only 2/10 patients showed a positive ASST. The medication used by the patients explains the main differences between the two tests, as donor basophils used in the HR-Test are not inhibited. The HR-Test is thus necessary in the diagnosis of autoimmune urticaria with continuous medication such as antihistamines or corticosteroids.

P01.2

TREATMENT OF TOXIC EPIDERMAL NECROLYSIS WITH HIGH-DOSE INTRAVENOUS IMMUNOGLOBULIN ALONG WITH INTENSIVE NURSING CARE

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Toxic epidermal necrolysis (TEN) is a rare skin reaction with an incidence of 1–2 cases per million inhabitants. TEN has a mortality rate from 15–40% depending on the total body surface area affected. Different drugs are the major causes of TEN, but various infections can be responsible. In our department we have successfully treated 2 patients with high-dose intravenous immunoglobulin (IVIG). A 16-year-old critically ill woman with a total body surface area detachment (TBSA) of 85% was hospitalised. The probable cause of her TEN was a diagnosed mononucleosis. She was treated with IVIG (Octagam), 1g/kg intravenously daily in 3 consecutive days. After 24 hours an improvement was observed. During the next days her lesions reepithelialized. The second patient with TEN was a 39-year-old man with TBSA of about 25%, most probably due to gabapentin (Neurontin). He was treated with IVIG 1g/kg daily intravenously in 3 consecutive days and during the next days his lesions healed without further progression. Keratinocytes normally express cell-death receptor Fas (CD95) and low levels of its ligand. TEN keratinocytes express high levels of lytically active Fas ligand. Anti-Fas antibodies which are present in IVIG potently block Fas-mediated keratinocytes apoptosis and therefore inhibiting the progression of TEN. Both patients required intensive nursing care 24 h a day and the successful outcome depended on a well organized multidisciplinary approach. The main focal points were comprehensive skin care, prevention of infections and monitoring the patients’ physiological and psychological condition.

P01.3

SERUM INDUCED BASOPHIL HISTAMINE RELEASE (HR-URTICARIA TEST) APPLIED ON A POPULATION SUSPECTED OF HAVING CHRONIC IDIOPATHIC URTICARIA

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Background: Autoimmune factors seem to be involved in patients with chronic idiopathic urticaria (CIU): They have 1) autoantibodies against the IgE/IgE-receptor, 2) positive autologous serum skin test (ASST), and 3) serum-induced histamine release. We have examined the correlation between ASST and HR-Urticaria test in a group of well-characterised dermatological patients and subsequently calculated the percentage of HR-Urticaria positive sera from a larger population suspected of having CIU.
Patients: Group 1: 28 patients with CIU (16 were ASST positive), 1 patient with atopic dermatitis (AD), 3 patients with urticarial vasculitis (UV) and 9 healthy controls. Group 2: 873 patients suspected of having CIU.

Methods: PBMCs containing 1–2% basophiles from healthy donors were incubated with patient sera. Histamine was measured by the glassfiber method (RefLab, Copenhagen, Denmark). A release >16.5% is considered positive.

Results: In group 1 using the ASST as the true outcome, the HR-Urticaria test showed a sensitivity and specificity of 75%. Neither the AD and the UV patients nor the controls were positive in HR-Urticaria test. In group 2 we found no difference in the frequency of positives between male (34.7%, n=254) and female adults (35.1%, n=576).

Conclusions: Serum induced histamine release using the commercial HR-Urticaria test showed the same results as previously demonstrated by others. In addition, our studies demonstrated a high frequency of sera inducing histamine release (35.3%). Further studies are however needed to demonstrate if other factors than autoantibodies against the IgE/IgE receptor are involved in the release process, such as cytokines and/or complement split products (C3a and C5a).

P03.1

NO EFFECT OF SPIRONOLACTONE ON VON ZUMBUSCH PUSTULAR PSORIASIS, A CASE REPORT

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TNF-alfa blocking agents as infliximab and etanercept have substantial effect on rheumatoid arthritis (RA) and psoriasis.

The aldosterone receptor antagonist, spironolactone has been shown to have inhibitory effects on production of TNF-alfa and IFN-gamma in in vitro studies and to have clinical effect in an uncontrolled study on various arthritis patients, one of which had palmo-plantar pustulosis.

A 49-year-old man had exacerbation of pustular psoriasis covering approximately 70% of his body surface area, pustular destruction of nail-plates and WBC count of 22 to 29, fever and constitutional symptoms in spite of treatment with ciclosporine 300 mg daily and methotrexate 15 mg weekly. Due to previous experience and skin-fragility the patient did not initially accept neotigason treatment.

He was given spironolactone in three weeks, initially at a 25 mg b.i.d. dose increasing to 100 mg b.i.d. Combined therapy with cyclosporine and spironolactone is not recommended as hyperkalaemia can be a side-effect of this drug combination. However, no data substantiates this hypothetical risk and one animal study even suggests a nephroprotective effect of spironolactone during cyclosporine therapy. Serum potassium was measured daily and no hyperkalaemia occurred.

During treatment the pustular psoriasis deteriorated further with large confluent lakes of pus on his hands and body and his general health further weakened. For this reason he was shifted to a high dose neotigason (100 mg) regimen combined with cyclosporine resulting in disease remission. Methotrexate and spironolactone were stopped.

Spironolactone had no effect on pustular psoriasis in this case.

P03.2

A DOUBLE-BLIND, PLACEBO-CONTROLLED STUDY OF A COMMERCIAL ALOE VERA GEL IN THE TREATMENT OF SLIGHT TO MODERATE PSORIASIS VULGARIS

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Objective: To test the effect of a commercial, preserved, but otherwise untreated Aloe vera gel in psoriasis.

Patients/methods: 41 patients with stable plaque psoriasis were included in a randomized, double-blind, placebo-controlled right/left comparison. The study comprises a 2-week wash out period followed by a 4-week treatment period with 2 daily applications and follow-up visits after 1 and 2 months.
Results: Data from 40 patients were analysed. The score sum of erythema, infiltration and desquamation decreased in 72.5% of Aloe vera-treated sites compared to 82.5% of placebo-treated areas from week 0 to week 4 which was statistically significant in favour of the placebo treatment (p=0.0197).

Conclusions: The effect of this commercial Aloe vera gel on stable plaque psoriasis was modest and not better than placebo. However, the high response rate of placebo indicated a possible effect of this in its own right which would make the Aloe vera gel treatment appear less effective.

P04.1
SUCCESSFUL TREATMENT WITH INFlixIMAB IN METASTATIC CROHN’S DISEASE IN CHILDHOOD
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Metastatic Crohn’s disease is a rare cutaneous manifestation of intestinal Crohn’s disease. Crohn’s disease must be considered in the differential diagnosis of nontender, red, edematous plaques of the genital area. We report a case of vulval Crohn’s disease in a 13-year-old child which cleared completely on a 2-month course of Infliximab without adverse effects. The merits of recurrent treatment with infliximab are discussed with a review of the literature.

P04.2
SYMPTOMATIC ACHRODERMATITIS ENTEROPATHICA: A CASE REPORT
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Achrodermatitis enteropathica (AE) is usually a recessive disease appearing after weaning with exanthema, gastroenteritis with fatty stool and alopecia ending untreated lethally within childhood. From 1973 the faulty zinc resorption in the gut has been fully compensated by daily oral zinc supplementation throughout life. Symptomatic AE needing only temporary Zn supplement occurs in a minority of prematures. Our clinical case of AE, with subnormal serum Zn, developed in a full-term child when still on mothers milk, and was shown to have a different cause than the classical type.

P05.1
INTERACTIONS BETWEEN SKIN-HOMING T-LYMPHOCYTES AND PERIPHERAL MONONUCLEAR BLOOD CELLS IN PATIENTS WITH ATOPIC DERMATITIS
Jane Baumgartner-Nielsen, C Vestergaard, M Deleuran, K Thstrup-Pedersen

Background: Atopic dermatitis (AD) is dominated by skin-homing T-lymphocytes. In this study the aim was to describe if there – in an autologous system - are any interactions between T-lymphocytes in the skin and peripheral mononuclear blood cells (PBMC) i.e. if there are signs of an cell-mediated autoimmune reaction.

Methods: T-cell lines were obtained from skin biopsies from clinically affected skin from patients with AD. The biopsies were placed in RPMI-1640 with 10% human AB serum, interleukin 2 and interleukin 4 but without feeder cells, antigen or mitogen. After four weeks, T-cell lines (9-12 cell doublings) were present in the media. Four weeks after the biopsies were taken and placed in growth medium, 30 ml heparinized blood was drawn from the patients. PBMC was isolated with Lymphoprep®. T-lymphocytes from the culture or PBMCs were treated with Mitomycin-C and mixed in 96-well plates with non-Mitomycin-C treated culture T-lymphocytes or PBMC. After 6 days a proliferation assay was performed by using Cell Titer 96® Aqueous One Solution Cell Proliferation Assay, recording absorbance at 490 nm with a 96 well plate reader.

Results: PBMC mixed with Mitomycin-C treated culture T-lymphocytes showed a significantly higher proliferation rate than PBMC without culture T-lymphocytes.

Conclusions: The results of the study indicate there is an interaction between PBMC and T-lymphocytes from the skin. This interaction could be an autoimmune reaction which open up new perspectives for the understanding and the treatment of AD.

P05.2
INCIDENCE, SEVERITY AND MANAGEMENT OF ATOPIC DERMATITIS AMONG CHILDREN IN DENMARK DURING THE 1990S
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An increase in the prevalence of atopic dermatitis (AD) has been reported during the 1960s to 1970s. The increase could be due to many factors including a genuine increase of incidence or duration of AD. Also, little is known concerning the severity and management of AD in children. We therefore aimed to compare the cumulative incidence of AD in 1993 and 1998. Further, we studied the severity and management of AD among children.

During the 1990s two samples of children born in Denmark were drawn from the Danish Medical Birth Register. In the 1993 study and the 1998 study a mailed questionnaire concerning AD was sent out. In the 1998 follow-up study the questionnaire included a severity score and questions concerning management of AD.

In the 1993 study the cumulative incidence of AD at age 7 was 18.9% and in 1998 19.6%. In the 1998 study 81% had
mild to moderate AD. Ninety percent had been seen by a
doctor at least once, 36% had mainly been treated by a
dermatologist, and 2% had been hospitalised.

No difference of the age-adjusted AD incidence was
observed in the 5-year observation period, which may reflect
that a saturation level of the disease has been reached. Most
children with AD had a mild to moderate disease. A third
of children with AD were mainly treated by dermatologist
and only few children had been hospitalised. It should be
kept in mind that we base most of our common knowledge
of the disease on patients with AD selected for management
in dermatology clinics and departments.

P05.3

HIGHLIGHT ON ATOPIC PREDISPOSITION: THE
ICHTHYOSIS-PREMATURE SYNDROME

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This recessive syndrome, ichthyosis-prematurity syndrome
(IPS or ichthyosis congenita IV), is associated with amniotic
fluid debris, polyhydramnion, delivery around 32nd week
of pregnancy, excessive ichthyotic-caseous skin changes and
frequent asphytic symptoms at birth, rapid improvement of
skin, but with persistent dryness of a skin with cobble
stone like follicular hyperkeratosis, dermographism and
associated eosinophilia.

It has a pathognomonic skin ultrastructure. Through 2
decades 22 cases from 16 Norwegian families have been
ascertained, autosomal recessive inheritance been proven,
the majority from Middle Norway (3 counties). Only very
few cases are reported from other countries (Finland, Italy,
Switzerland, Sweden, observed in Germany - the Italian case report
especially focused on the mastocytosis-like features). In this
oral communication the atopic characteristics of IPS will
especially be focused on. A genome wide linkage study at the
University of Uppsala of 14 informative Norwegian and 2
Swedish families has assigned the gene locus to
chromosome 9. All patients suffer from excessive itching,
hyper-IgE and several develop regular atopic eczema.

P05.4

PATTERN OF SENSITISATION TO FOOD AND
INHALANT ALLERGENS IN INFANCY

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Objectives: 1) to describe the pattern of sensitisation to
common food- and inhalant allergens in infants, and 2) to
investigate the associations between different definitions
of sensitisation and the development of atopic eczema (AE).

Method: A random sample of 562 infants was followed
prospectively from birth to 18 months with clinical
examination and allergological tests using skin prick test
(SPT), specific IgE and basophile leukocyte histamine release
(HR-test). Extracts (ALK-Abello®) of milk, egg, house-dust
mites, animal dander, pollen, moulds and fresh milk were
used for the SPT. Detectable IgE of 1.43 SU/ml (Magic Lite,
ALK-Abello®) to milk, egg, fish, wheat, peanut and 8 inhalant
allergens were graded into allergy classes (0-5). The lowest
concentration of 5 different allergens giving >15 mg/ml of
HR from basophilines was analysed.

Results: Sensitisation ever to <1 allergen was observed in
59%, 50% and 6.3%, respectively, using HR, IgE and SPT. Most
reactions were transient. Persistent sensitisation occurred
in 17%, 9.7% and 3.2%; sensitisation to >3 allergens was
found in 4.3%, 6.8% and 1.1% using HR, IgE and SPT. In AE-
cases transient and low-level sensitisation were as frequent
as in those never sensitised. SPT and IgE were more powerful
to detect children with AE than with HR.

Conclusion: Sensitisation to environmental allergens was
frequently observed in infants. Sensitisation to foods was
more frequent than to inhalant allergens. The dominant
pattern was low-grade transient sensitisation. Persistent
reactivity, high-level sensitisation, sensitisation to many
allergens gave high associations with the presence of AE.

P05.5

A FOLLOW-UP STUDY OF A TOPICAL TREATMENT
REGIME FOR ATOPIC DERMATITIS

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Objective: The study is a follow-up of patients with atopic
dermatitis treated with a special designed regime using
mometason (Elocon®) ointment and Epaderm® ointment.

Methods: The topical treatment regime was explained to
the patient/parent orally and in a detailed written
instruction. In short it consisted of mometason ointment
followed by application of 25% and later 12.5% mixtures
of mometason and Epaderm ointment applied once daily
on the entire region affected by eczema immediately after
a short bath. The treatment was later tapered according to
the written instruction. A questionnaire regarding the
patients or parents satisfaction with the regime and opinion
of the treatment compared with other regimes, which the
patient/child had been exposed to earlier, was sent to 50
patients 6 months after the patients had entered the
treatment.

Summary of results: 33 patients replied. The most important
findings were that the majority of the patients/parents
found, that the treatment was easy to perform with the
daily treatments lasting 5-10 min. 69% found that the
regime was far better than other treatments the patients
had tried. 88% was still using the main principles and 67%
would recommend the treatment to others with eczema.
4 out of 7 answered, that they found their eczema before
treatment to be very severe while 5 out of 7 felt that the
eczema at the time of questioning was far better.

Conclusions: It is concluded that the Elocon/Epaderm regime
is easy to perform and effective in controlling the eczema
not only in the short-term but also on a long-term basis.
P05.6

**BENEFICIAL EFFECTS OF A MEDICAL HAND CARE SYSTEM IN DIFFERENT SKIN CONDITIONS AND IN HAND ECZEMA**

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We investigated efficacy, skin compatibility and caring properties of a medical hand care system consisting of 3 hand creams. The creams are based on o/w emulsions and developed to meet the specific needs of different skin conditions: 1) a cream with a high content of skin regenerating panthenol, moisturizing glycerol and caring lipids for sensitive and intensively exposed skin (Eucerin® pH5 Hand Cream, “A”); 2) a cream containing 5% urea and lipids for dry skin, also in atopic patients (Eucerin® 5% Urea Hand Cream, “B”); 3) a cream with anti-aging properties, containing UV filter (SPF 15) and the anti-oxidant coenzyme Q10 (Eucerin® Q10 Anti-Age Hand Cream, “C”). For cream A suction blister studies demonstrated a significant enhancement of epidermal regeneration after regular application. These results were further substantiated in a broad, open label in-use study in 286 healthcare professionals. Occupational skin stress was rated to be strong by 52% of the participants. Efficacy of the cream was rated in approx. 96% of the cases to be very good or good; assessment of tolerability was excellent (96.8% very good or good ratings). For creams B and C efficacy tests regarding moisturisation, skin roughness and skin protection showed significant results. Furthermore, a urea replenishing effect was proven for cream B. Clinical studies performed for 2 weeks in patients with sensitive and/or dry skin including chronic dermatoses demonstrated excellent skin compatibility of all creams with no side effects being reported. Skin condition of all patients was normalized or improved at the end of the study periods. We conclude that the Eucerin® medical hand care system consisting of pH5 Hand Cream, 5% Urea Hand Cream and Q10 Anti-Age Hand Cream is excellently suited for subjects with sensitive or dry skin under all kinds of daily life conditions, even in hand eczema.

P05.7

**BENEFICIAL EFFECTS OF A UREA CONTAINING MEDICAL FACE CARE SYSTEM IN PATIENTS WITH DRY SKIN**

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We investigated efficacy, skin compatibility and caring properties of a medical face care system consisting of 3 creams containing 5% urea to meet the specific needs of dry skin conditions of various origin: 1) a light o/w emulsion for daily face care (Eucerin® 5% Urea Face Cream, “A”), and 2) a rich w/o emulsion containing additionally ceramide-3, a skin-own lipid, for special use at night (Eucerin® 5% Urea Night Face Cream, “B”). For cream A efficacy tests showed significant results regarding strengthening of skin barrier function and absorption/penetration of urea. For cream B an improvement of skin moisturisation, reduction of skin roughness and enhancement of skin barrier function were proven. These results were further substantiated in a 2 - week clinical study performed in patients with dry skin including chronic dermatoses like atopic dermatitis. The skin symptoms dryness, reddening, scaling, fine wrinkles, itch and tension were significantly improved at the end of the study period. The tolerability of the products was mainly assessed to be very good or good. No side effects were reported. We conclude that the Eucerin® medical face care system consisting of 5% Urea Face Cream and 5% Urea Night Face Cream is excellently suited for subjects with dry skin, even in atopic dermatitis of the face as adjunct treatment.

P05.8

**FOOT CARE WITH A 10% UREA EMOLLIENT IN DIABETIC AND ATOPIC PATIENTS: RESULTS OF TWO CLINICAL STUDIES**

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604 patients (63% women, 37% men, mean age 53.2 years) with dry and extremely dry, chapped skin of the feet were enrolled in a controlled clinical multi-center study in Germany and Austria. The underlying diseases were mainly either xeroderma (42.7%), diabetes (29.6%) or atopic eczema (18.7%). Two weeks after regular application of Eucerin® 10% Urea Footcream the skin status improved noticeably in 95% of the patients. Clinical symptoms like dryness, scaling, calluses, rhagades, pressure sores and marks improved in diabetics in 96.7% and in atopics in 97.4%. Only 0.3% noticed a deterioration of individual single symptoms. The skin tolerability of the perfume-free formula was assessed as “very good” or “good” in 96% of the patients. 96.7% of the investigating dermatologists therefore recommended the further use of this product. In a second study 30 in-house patients (73.3% women, 26.7% men, mean age 43.7 years) with xeroderma and/or diabetes treated one foot for 10 days with Eucerin® 10% Urea Footcream. The intraindividual comparison to the untreated side demonstrated a significant reduction of dryness, scaling and calluses with also excellent ratings in terms of product performance (long lasting effect, absorption, skin feeling). Eucerin® 10% Urea Footcream can be recommended as an effective and very well tolerated foot care product for the daily care of dry, extremely dry and chapped skin in xeroderma, diabetes and atopic eczema.

P05.9

**IN-VIVO ASSESSMENT OF THE EFFICACY AND TOLERABILITY OF A TOPICAL OMEGA-6-FATTY ACID TREATMENT IN CHILDREN WITH ATOPIC DERMATITIS**

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The pathogenesis of atopic dermatitis involves an epidermal lack of omega-6-fatty acids, which correlates positively with
disease severity. In the present study the efficacy and
 tolerability of a topical omega-6 fatty acid treatment with
Eucerin® 12% Omega Cream or Eucerin® 12% Omega Lotion
has been investigated in children with atopic dermatitis. 28
(cream group) respectively 30 children (lotion group) in
the age of 2-18 years with atopic dermatitis were enrolled
in this open, controlled clinical study. The cream, 
respectively the lotion was applied 2 times daily to the face
(cream) respectively to the body (lotion). Concomitant
pharmaceutical medication was allowed if necessary.
Evaluation of the treatment areas in comparison to baseline
was performed and compatibility of the products with
concomitant medication was assessed by physicians after
3 weeks of treatment. At the end of the study patients or
their mother/father filled out a questionnaire regarding the
product properties, especially regarding the tolerability of
the cream around the eyes. During the studies Eucerin®
Lipid Shower Oil was used for standardized cleansing. The
results showed a substantial improvement of the skin
condition in 42.0% and an improvement in another 42.9% of
patients treated with the cream. In the lotion group the
skin condition had substantially improved in 44.8% of
patients and improved in 41.4% after 3 weeks of treatment.
The patients stated the product properties generally as very
good with the best values for general tolerability and
tolerability around the eyes especially for the cream.

P05.10

TNF-α INDUCED CTACK/CCL27 (CUTANEOUS T CELL
ATTRACTION CHEMOKINE) EXPRESSION IN
KERATINOCYTES IS CONTROLLED BY NF-κB
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CTACK (cutaneous T-cell attracting chemokine)/CCL27 is
a skin specific chemokine which is believed to play a pivotal
role as a mediator of lymphocyte migration into the skin.
The expression of CTACK is increased in inflammatory
conditions such as atopic dermatitis, psoriasis and contact
dermatitis. CTACK expression in normal human keratino-
cytes can be induced by TNFα. TNFα is also known to induce
activity of the transcription factor NF-κB which also regulate
the transcription of a number of chemokines and
proinflammatory cytokines. The purpose of this present
study was to determine whether TNFα induced CTACK
expression was regulated through a NF-κB dependent
mechanism. In this experiment we have blocked the activity
of NF-κB in keratinocytes in two ways; 1) using the non-
specific NF-κB blocking agents SSC (sodium salicylate), DCIC
(3,4-dichloroisocoumarin) or PAO (phenylarsine oxide) and
2) using specific antisense oligo’s against the p50 and p65
units of NF-κB both separately and in combination. The
results showed that both the non-specific and the specific
NF-κB inhibitors inhibited the TNFα induced CTACK
expression significantly in normal human keratinocytes.
This was shown on both protein and mRNA level. Our results
demonstrate that CTACK expression is under the control
of a NF-κB p50/p65 heterodimer, and further underlines
the importance of NF-κB in inflammatory skin diseases, and
also points to NF-κB as an attractive target for anti-
inflammatory therapy.

P05.11

A CROSS-OVER STUDY TO COMPARE CYCLOSPORINE
AND EXTRACORPOREAL PHOTOPHERESIS IN SEVERE
ATOPIC DERMATITIS
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Severe atopic dermatitis (AD) is a debilitating disease.
Recalcitrance often necessitate systemic immuno-
suppressants.

Trials have showed azathioprine and short course
cyclosporine to be superior to placebo. However, potential
side effects to immunosuppressants are concerning.

Extracorporal photopheresis (ECP) was introduced in the
early 1980s in the treatment of cutaneous T-cell lymphoma
by Berger et al. Case reports have showed effect of ECP in
the treatment of AD with side effects appearing rare and
mild. Controlled trials however have never been per-
formed.

ECP administered on 2 consecutive days twice a month was
compared to cyclosporine 3 mg/kg/day for a period of 4
months in a crossover study. An individual relapse period
was interspersed between treatments. Twenty individuals
older than 18 years with severe AD (SCORAD >40) lasting
at least 5 years, refractoriness to any other treatment
(steroid ointments, UVA, UVB, PUVA and local tar) were
elected.

SCORAD was recorded during visits. S-IL-2 R and E-selectin
were determined by means of ELISA technique along with
regular blood sampling. Buffy coats from biologic
responders before and after UVA exposure underwent
flowcytometric analysis before and after 48 h of incubation
for markers of monocyte to dendritic cell maturation.

The reduction in SCORAD and pruritus was at least
equivotent and “patient global assesment” better during
ECP than cyclosporine therapy. ECP seemingly enhanced
eqvipotent and “patient global assesment” better during
ECP than cyclosporine therapy. ECP seemingly enhanced
ECP than cyclosporine therapy. ECP seemingly enhanced

In conclusion clinical efficacy of ECP seem comparable to
cyclosporine. This may result from the immune regulatory
capacity of DC-like cells.

P06.1

TREATMENT WITH LOCAL BATH-PUVA THERAPY
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Local bath-PUVA therapy is a newly introduced treatment in
our dermatologic department. We use Tripsor®
(trioxsalen) 0.5 mg/ml for 10 min followed by UVA 0.10–
1.2 J/cm². The treated areas need to be protected against
sun for the rest of the day. It has been used in the treatment of
palmoplantar eczema, psoriasis and palmoplantar
pustulosis that generally respond after 2–4 weeks and clear
after 8–10 weeks. We have treated patients refractory to local TL-01 successfully with bath-PUVA.

We give an overview of the treatment procedures with clinical examples. Written patient instructions will be available at the poster site.

P06.2
EDUCATIONAL NEEDS AND EXPECTATIONS OF PSORIASIS PATIENTS. THE PATIENTS’ PERSPECTIVE
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The nurses at the Department of Dermatology have developed a guideline for education and guidance of patients with psoriasis regarding how to help them to cope with and treat their own disease. The guideline was developed from the nurses’ perspective and based on their experience. The main objective of this study was to explore the patients’ needs and expectations in relation to education and guidance. Six patients (three men and three women) with psoriasis, aged between 21 and 58 years, were randomly selected for the interviews. The interviews were semi-structured and the main focus was the patients’ experiences of how to live and cope with psoriasis as well as their needs and expectations in relation to education and guidance. Preliminary results of this study suggest that the patients’ needs for education and guidance are very individual. However, a gender difference was apparent. The men in the study more commonly expressed the wish to take care of the problems on their own and did not pay as much attention to their disease as the women. The data analysis is still ongoing and the results will be presented at the congress. The results might be used to improve future patient education by taking the patients’ perspective into consideration and to make the nurses’ intervention more individually oriented.

P06.3
EDUCATION PROGRAM ON ATOPIC DERMATITIS
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Atopic dermatitis is one of the most common chronic diseases in children in Western countries. As atopic dermatitis mostly starts in infancy or early childhood, its chronic course, with frequent relapses, puts a special burden on the children and their family. To improve long-term outcome in management of childhood atopic dermatitis it is important to support parents in dealing with the chronic disease of their child in addition to treat the symptoms.

During the last 10 years an education program for families with children suffering from atopic dermatitis has been carried out at the Department of Dermatology in Odense. The aim of the training program is to give the families a better understanding of the disease and the treatment addressing medical as well as psychological issues. The concept of the educational program will be presented as well as thoughts for the future.

P07.1
A NEW POTENT ANTIOXIDANT AND UVA-PROTECTIVE SUNSCREEN FORMULATION AS PROPHYLAXIS AGAINST POLYMORPHIC LIGHT ERUPTION
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2Department of Dermatology, University Hospital, Hamburg, Germany

Polymorphic light eruption (PLE) is the most common photodermatosis. Pathogenesis mainly involves UVA-induced oxidative stress and subsequent deregulation of antioxidative immune responses. In our randomized, double-blind, placebo-controlled clinical study, we were able to demonstrate that a new topical formulation, consisting of 0.25% alpha-glucosylrutin (a naturally derived flavonoid), 1% tocopherolacetate (vitamin E) and a filter system (SPF 15) with high UVA-protective efficacy in a water-based gel formulation, was highly effective in preventing clinical signs of PLE. Thirty patients with a history of PLE were pre-treated with either the above formulation, placebo or a SPF 15 sunscreen-only gel 30 min prior to daily UVA-irradiations of 60 J/cm² to 5x5cm areas on the upper arms. After 4 days, results revealed a statistically highly significant difference (p<0.001) between the formulation and placebo, and formulation and sunscreen-only, respectively, in experimentally eliciting PLE. While only one patient developed clinical signs of PLE with accompanying itch in the area treated with the new formula, 62.1% of the placebo-treated areas and 37.9% of the sunscreen-only-treated areas showed mild to moderate signs of PLE. We were able to demonstrate that combining a potent antioxidant with a broad spectrum, highly UVA-protective sunscreen is far more effective in preventing PLE than SPF 15 sunscreen or placebo alone and should thus be employed as a therapeutic measure in the prophylaxis of PLE.

P07.2
SUN PROTECTION UNDER EXTREME SUN EXPOSURE DURING A HIGH MOUNTAIN CLIMATE THERAPY IN COMMON SKIN DISEASES – RESULTS OF AN OPEN SURVEILLANCE STUDY IN 210 PATIENTS
Claudia Treder-Conrad1, D. Schöne1, S. Balser1, R. v. Bülow1, S. Borell1, F. Rippke1
1Beiersdorf AG, Hamburg, Germany
2Alexanderhausklinik, Davos, Switzerland
3Markt Schwaben Germany

210 patients (aged 1 to 61 yrs, mean age 25.3 years) were enrolled in this clinical in-use study investigating the efficacy and skin compatibility of 7 Eucerin® sunscreen formulations (SPF 15 to 35) during heliotherapy. 3.8% of patients had skin type I, 51.0% type II and 42.9% type III according to Fitzpatrick. Most common diagnoses were atopic eczema (in 60.5% of patients on the face and 83.8% on body) and psoriasis (2.4% face, 7.1% body). In 63.3% an anamnestically known allergy was documented. In the majority of patients the sunscreens were applied twice per day and the application period was mostly two
(63.3%) or three weeks (28.6%). The assessment of the disease severity scores yielded highly significant improvements for all symptoms. Sunburns were reported only in few cases and were of mild intensity. The overall sun protective efficacy and skin compatibility were rated as good or very good in 91.9% and 82.8% of cases, respectively. Cosmetic product properties also received good median scores. These results prompted the investigators to recommend the further use of the products in 92.9% of the cases. Thus, the tested products proved to be highly efficacious and well tolerated in patients with diseased skin, even under extreme sun exposure, and did not interfere with the heliotherapeutic effects.

**P07.3**

**A LIGHT APPLICATOR FOR PHOTODYNAMIC THERAPY IN THE ORAL CAVITY**

Even Angell-Petersen, SL Kvaal, T Warloe, HB Steen
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2. Faculty of Dentistry, University of Oslo, Norway
3. Department of Biophysics, The Norwegian Radium Hospital, Oslo, Norway

We have been investigating photodynamic therapy for thin lesions in the oral cavity using a topical cream containing methyl aminolevulinate (Metvix, Photocure, Oslo, Norway) and red light from a novel light applicator. The topical drug makes cells produce endogenous phototoxic porphyrins which act as photosensitizers when tissues are exposed to light. Light from four high-power light-emitting diodes (Lumicube Emitter, Lumileds, San Jose, USA) were mounted on a light guide with diameter 2 cm and length 10 cm. During light application, the light guide was held directly against the site to be treated. The system is hand-held and has a design that does not include any expensive components. It was able to deliver an irradiance of 150 mW/cm² of light with a wavelength around 635 nm to sites with a diameter of 2 cm. The efficiency of the light applicator was evaluated by non-invasive measurements of photobleaching of the photosensitizer during light exposure. The distributions of light and photosensitizer in the tissues were taken into account in the evaluation. The results indicate that exposing a site to light from the applicator for 8 min was sufficient to bleach away practically all photosensitizer available and give maximum PDT effect.

**P07.4**

**VITAMIN-D STATUS IN PATIENTS WITH ALBINISM - A CASE-CONTROL STUDY**

Anette Bygum, R Scheller, F Brandrup, B Abrahamsen, T Hertel, N Bech, T Rosenberg, K Brixen

Departments of Dermatology, Endocrinology, Geriatrics, and Pediatrics, Odense University Hospital, and National Eye Clinic, Denmark

Oculocutaneous albinism is characterized by a defect in the melanin synthesis pathway, resulting in reduced cutaneous, ocular, and pilar pigmentation. As a consequence, these persons protect themselves against the sun with clothing, sun blocker, and sunglasses. About 90% of vitamin-D is produced by photochemical synthesis in the skin with subsequent hydroxylation in liver and kidney. Besides regulation of calcium and bone metabolism, vitamin-D also functions as a regulator of cellular growth and differentiation in various tissues, leading to disturbed muscle function and maybe also a higher risk of specific types of cancer. Theoretically and experimentally, sun-protective behaviours can reduce vitamin-D production in the skin and vitamin-D deficiency is highly prevalent in e.g. immigrants from the middle-east to the Scandinavian countries using traditional clothing.

**Objective:** To determine if Danish patients with albinism have normal serum levels of 25-OH-vitamin-D.

**Design:** Case-control study of albinos and healthy family members obtaining data concerning sun exposure, sun protection and vitamin supplements as well as skin examinations. Serum levels of 25-OH-vitamin-D, PTH, ionized calcium, and alkaline phosphatase were measured in autumn and early spring in 20 patients (aged 7-74 years) and 20 controls (aged 8-55 years) all members of the Danish organization for albinism.

**Results:** To be presented.

**P07.5**

**SYSTEMIC PDT IN PATIENTS WITH WIDESPREAD NON-MELANOMA SKIN CANCERS**

Trond Warloe
Norwegian Radium Hospital, Oslo, Norway

Patients with widespread non-melanoma skin cancers have been treated with systemic aminolevulinic acid (ALA)-PDT in our institution during the last years. Most of these patients were organ transplanted with subsequent immunosuppression. Two female patients both around 65 years of age had especially extensive lesions. One patient had received arsenic during childhood and the other had received interferon as treatment for her multiple sclerosis, this with no effect other than side-effects.

Both patients had previously received most treatment modalities for skin cancer, but the pace of development of new lesions made the condition uncontrollable. They were therefore referred to systemic PDT.

The treatment procedure was carried out with ALA 60 mg/kg bodyweight 4 h to light session performed in general anaesthesia. Most available light sources in the institution were in use: laser 633 nm, Curelight 128 and Waldman lamp at light doses varying according to thickness of the lesions. Patients were kept out of sunlight for 32 h after drug administration. A transient increase of liver enzymes was observed. Treated lesions become necrotic and the treatment areas dried up after generally 10 days. Patients received opiates analgesics during this period. Results of this treatment were considered satisfying, their skin cancer condition seems to be controlled and topical treatment could be continued.

**P08.1**

**MIROZAPINE FOR CHRONIC URTICARIA**

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We present three cases of recalcitrant urticaria where conventional therapy had proven unsuccessful. We therefore tried the psychotropic drug mirtazapine possessing antihistaminergic potency. In one patient with severe cold urticaria, treatment was unsuccessful whereas in a case of delayed pressure urticaria and a case of severe physical urticaria after exercise mirtazapine 15 mg o.d. controlled the symptoms. Mirtazapine has not previously been described for treatment of chronic urticaria. We suggest mirtazapine to be used in selected cases of severe chronic urticaria.

P09.1
THE HAIRLESS GUINEA PIG AS A MODEL FOR TREATMENT OF CUMULATIVE IRRITATION IN HUMANS
Flemming Andersen¹, K Hedegaard², A Fullerton², KE Andersen¹
¹Department of Dermatology, Odense University Hospital, Odense, Denmark
²LEO Pharma, Ballerup, Denmark

The efficacy of 6 skin care formulations (SCF A-F) as treatments of cumulative irritation was studied in hairless guinea pigs (HLGP) and in human volunteers. In HLGP irritant dermatitis was induced with 30 min daily exposure for 4 days to 0.5% sodium lauryl sulphate (SLS). In human volunteers irritant dermatitis was induced with 10 minutes daily exposure for two weeks to SLS 3% on the right and nonanoic acid (NON) 30% on the left volar forearm. Clinical scoring was performed daily, evaporationmetry (TEWL), hydration and colorimetry were measured at baseline (day 0) and at regular intervals. Treatments were applied twice daily. SCF A and C were excluded from testing in HLGP because they were irritating themselves in HLGP, while all formulations were equally and well tolerated in humans. SCF B, D, E, and F all worsened the skin irritation in HLGP. D the least, E the most whilst F and B were indistinguishable. In humans SCF D was better than no treatment giving the following ranking of the formulations:

Humans: Worst C E (A F/B/no treatment) D Best
HLGP: Worst C A (E F/B D) no treatment Best

The results from the two studies appear to be similar – the only difference being that in humans SCF D was better than no treatment rather than worse.

P09.2
SKIN IMAGING WITH OPTICAL COHERENCE TOMOGRAPHY
HC Plaschke¹, Andreas Tycho², GBE Jemec²
¹Division of Dermatology, Roskilde University, Department of Medicine, Roskilde, Denmark
²OCT-Innovation, Roskilde, Denmark

Morphological studies of the skin continue to be the mainstay of dermatological diagnosis. Imaging techniques can provide specific information over and above what is seen by the naked eye. The development of new techniques has moved from earlier in vitro methods such as classical microscopy to in vivo examination which allows longitudinal studies of lesions over time. Optical coherence tomography (OCT) is a relatively new technique, which can provide cross-sectional images with resolution up to 1 mm and penetration depth of 1.0–1.5 mm in skin. Most OCT systems use near-infrared light from 800 nm to 1550 nm, and the optical power on the skin is in the order of 0.5–10 mW continuous light. In the near infrared the attenuation of the light beam is mainly due to scattering which then favours longer wavelengths for high resolution. However, this penetration comes at the cost of resolution and therefore an optimum of 1300 nm for dense tissues, such as skin, and 800 nm for tissues such as the retina. Parallel to ultrasound a light beam is irradiating the skin and the system measures the positions of backscattering structures. The strength of each reflection is then colour coded with either a grayscale or false-colour scheme. The potential of OCT in skin imaging is explored using an OCT system with a resolution of approximately 10 mm and an operating wavelength of 1310 nm. To this end we have made a species study comparing images from in vitro chicken, salmon, herring, pork as well in vivo images of human volar forearm and palm width ultrasound images and traditional histopathology images. Due to the superior resolution of the OCT images we see several structures not resolvable in the ultrasound images as well as good correspondence to structures seen in histopathology. Outlook of future developments is given.
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STADGAR FÖR NORDISK DERMATOLOGISK FÖRENING

antagna vid föreningens första möte i Köpenhamn 1910, ändrade i Köpenhamn 1935, i Stockholm 1946, i Århus 1977 och senast vid föreningens 26:e möte i Reykjavik den 14 juni 19934

§1 Föreningens syfte är att befrämja samarbete i vetenskap, undervisning och praktisk läkekonst mellan dermatovenereologer i de 5 nordiska länderna (Dammak, Finland, Island, Norge och Sverige.

§2 Som nya medlemmar kan antas personer i de 5 länderna vilka är verksamma inom dermatologi och venereologi. För inträde fordras, att den som söker om medlemskap föreslås av dermatologisk förening av samma nation; beslut om inval fattas på allmänt möte vid varje kongress med enkel röstövervikt.

§3 Till hedersledamot kan föreningens allmänna möte kalla den som gjort osedvanligt stora insatser för föreningen eller för nordisk dermatologi och/eller venereologi. För kallelse krävs 2/3 majoritet. Förslag till hedersledamot skall inges skriftligen till generalsekreteraren minst tre månader före allmänna mötet. Förslagen skall godkännas av föreningens styrelser för att kunna presenteras för allmänna mötet.

§4 Årsavgiften bestämmas vid varje kongress. Medlem som uppnått 65 levnadsår är befriad från avgift.

§5 Föreningen håller ett möte i regel vart tredje år i ett av de nordiska länderna. Tid och plats för nästa möte bestämmas på varje möte.

§6 Vid mötet hålls ett sammanträde för föreningsangelägenheter varvid följande ärenden skall förekomma:
1. Kassa förvaltarens berättelse.
2. Revisorernas berättelse jämte frågan om ansvarsfrihet.
3. Årsavgift för kommande 3-årsperiod.
4. Val av styrelse samt 2 revisorer för kommande 3-årsperiod.
5. Val av forskningskommitté
6. Tid och plats för nästa möte fastställes.
7. Antagning av nya medlemmar.
8. Övriga ärenden


§8 Det dermatologiska sällskapet i det land där mötet skall äga rum, lägger tillrätta kongressens vetenskapliga och övriga program och ombesörjer tryckningen av förhandlingarna i samråd med styrelsen. Varje föredragshållare och diskussionsdeltagare skall sända in ett referat till sekreteraren vid anmälan till kongressen. Föredraget hålls på danska, norska, svenska eller engelska.

§9 För en förändring av dessa stadgar krävs 2/3 majoritet. Dylika ändringsförslag skall vara insända senast 3 månader före ett mötes avhållande.
Möten i nordisk Dermatologisk Förening 1910–2001

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NORDISK DERMATOLOGISK FÖRENING
Nordic Dermatology Association

Protokoll fört vid generalförsamling 2001-06-09 i Göteborg

Dagordning

Den utdelade dagordningen godkändes, inga övriga ärenden anmäldes.

1. Val av ordförande för dagens möte
Till ordförande och protokolljusterare valdes kongress-presidenten Olle Larkö.

2. Kassaförvaltarens berättelse.

3. Revisorernas berättelse jämte frågan om ansvarsfrihet
Revisorerna läste upp sina rapporter. Generalsekreteraren fick i uppdrag att utreda huruvida föreningens bokföring och revision vart tredje år enligt föreningens stadgar är i överensstämmelse med den svenska lagstiftningen om den typ av förening som NDF är, samt att i förekommande fall föreslå nödvändiga ändringar i föreningens stadgar. Mötet beslutade att bevilja styrelsen och generalsekreteraren ansvarsfrihet för den gångna treårspan.

4. Årsavgift för kommande treårspan
Beslutades om oförändrad medlemsavgift, SEK 30 per år.

5. Val av styrelse för nästa treårspan
I enlighet med förslag från de nationella föreningarna valdes följande styrelseledamöter.

Danmark:
Ordinarie: Klaus E. Andersen, Knud Kragballe
Suppleanter: Susanne Ullman; mötet uppdrog åt den danska föreningen att utse ytterligare en suppleant.

Finland:
Ordinarie: Kristiina Turjanmaa, Anna-Mari Ranki.
Suppleanter: Aarne Oikarinen, Ilkka Harvima.

Island:
Ordinarie: Bardur Sigurgeirsson
Suppleant: Jon Hjaltalin Olafsson.

Norge:
Ordinarie: Nils-Jørgen Mørk, Ole B. Christensen.
Suppleanter: Svein Helland, Elisabeth Søyland.

Sverige:
Ordinarie: Gun-Britt Löwhagen, Ove Båck
Suppleanter: Inger Rosdahl, Mona Bäckdahl

Revisorer:
Tapio Rantanen, Kristian Thstrup-Pedersen

6. Antagning av nya medlemmar
Till nya medlemmar antogs samtliga personer som invalts i de nationella föreningarna sedan föregående möte i Bergen.

7. Fastställande av tid och plats för nästa möte.

55
8. Angående korresponderande medlemmar

Det beslutades att inför nästa möte utarbeta ett förslag till stadgeändring som möjliggör antagande av korresponderande medlemmar eller s.k. foreign honorary members.

9. Nordisk kandidat till International Committee of Dermatology (ICD)


10. Disposition av föreningens överskott


11. Forum for Nordic Dermatology and Venereology och NDF

Ärendet föredrogs av Jörgen Serup, som tillsammans med Agneta Andersson, båda företrädare för Nordic Forum, hade inkommit med skrivelse till föreningen. Mötet beslutade enligt följande:
1. Nordic Forum for Dermatology and Venereology blir officiellt organ för NDF.
3. Uttala uppskattning och uppmuntran för Forums strävanden att bidra till Continuous Medical Education.

12. Nordiska kurser i dermatologisk kirurgi

Ärendet föredrogs av Agneta Troilius, som inkommit med skrivelse från Sektionen för Dermatologisk Kirurgi och Onkologi inom Svenska Sällskapet för Dermatologi och Venereologi. Mötet beslutade att uttala sitt stöd och gällande för nordiskt samarbete såväl vad gäller arrangemang av "International Society Dermato Surgery Congress år 2005" som gemensamma kurser i dermatologisk kirurgi, laserkurser och andra specialkurser.

Därefter avslutades mötet.

Vid protokollet:

Torbjörn Egelrud
Generalsekreterare

Justeras:

Olle Larkö
Kongresspresident

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**Necrologies**

**Denmark**


Preben Bøttzauw Hansen 25.10.1902 - 1.10.2001. Preben B Hansen blev kandidat i 1929, speciallæge i dermato-venerologi i 1937. Han var ansat på Rudolf Berg Hospital, Rigshospitalet, Finseninstituttet og København Kommunehospital. Han var fra 1945 praktiserende speciallæge i Sundholm og senere speciallægekonsulent i Hellerup. Øret være hans minde. DDS


Michael Petri 03.08.1931-16.05.2003. Michael Petri blev kandidat i 1958, speciallæge i patologisk anatomici og historologi i 1966, og han disputerede i 1969. Han var ansat på Rigshospitalet, Sundby Hospital og Bispebjerg Hospital. Han var medlem af bestyrelsen i Dansk Selskab for Patologisk Anatomii. Øret være hans minde.


Eric var en utmärkt sällskapsmänniska och berättare av historier. Som föreläsare och lärare var han en färgrik person, och många av hans elever kommer ihåg honom väl, också efter årtionden. Sina patienter skötte han med värme, och ju märkvärdigare sjukdomsformen, desto mer inspirerad blev han. Som frimodig och vildsint människa uppskattade han en framgångsrik vaktsalvare eller salverska, som någon som en lakare. Hemligheten med sin höga ålder ansåg han ligga i sina måttliga
levnadsvanor, sin livsbejaktelse och framför allt i att han hörde till en långlivad släkt. 

Eric var en begåvad och mångsidig livskonstnär samt forskare och kännsare av natur och människor. Han saknas av kolleger och patienter.

Väinö K. Havu, Professor emeritus, Åbo Akademi.

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**Norway**


Arne Engelsen Cand.med. 1920–. Privat avdelning, Statens institutt for folkehelse og privat spesialistpraksis i Oslo fra 1959.

**Sweden**

Thomas Andersson, klinikchef vid hudkliniken i Linköping avled hastigt den 30 januari 2003 i en ålder av 47 år.

Thomas Andersson växte upp i Västerås och utförde huvuddelen av sin professionella gymnasticsom halso- och sjukvården i Linköping.


Thomas Andersson var en alltigenhed chefredaktör och samvetsgrant arbetande människa. Han var en uppskattad kliniker, lärare och forskare. I sin all sin yrkesutövning visade han stor kunnskap, ansvars- och engagemang. Som den gentleman han var hade han förmåga att hantera de mest granntiga uppgifter och rönte som ledare stort förtroende och respekt bland sina medarbetare.


Åke Fernström föddes 1916 och utbildade sig till allergolog och dermatolog. Åke Fernström arbetade under många år vid den allergologiska kliniken vid Karolinska sjukhuset i Stockholm under ledning av professor Ake Nilzén med specialintresse av allergier mot tandvårdmaterial och lichenoid reaktioner.

Bo Forslind. At the age of 68, Professor emeritus Bo Forslind died of cancer in 2002. Bo started his career at the Department of Medical Biophysics at Karolinska Institutet in the late 1950s and was still active at the department after his retirement. Bo was internationally recognized as a pioneer in applying biophysical methods to solve medical problems in the field of dermatology. His interest ranged from the keratinisation of hair to the structure and function of the skin barrier, stratum corneum. He was also an appreciated lecturer and mentor for research students. Magnus Lindberg

Pontus Herdenstam födtes 1922 och efter sin grundexamen utbildade han sig till dubbelspecialist inom såväl inväxtmedicin om dermatologi. Hans dermatologiska bana började vid hudkliniken på Södersjukhuset i Stockholm där han disputerade på en avhandling om psoriasis. Han blev sedermera docent i inväxtmedicin vid Linköpings universitet under vilken tid han tjänstgjorde vid Nyköpings Lasarett, där han även arbetade som personalläkare. Under sin tid i Nyköping utgjorde bidrog
Members in the national societies
*denotes new members since last meeting

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