

**KNJIGA SAŽETAKA**  
***BOOK OF ABSTRACTS***

**Napomena:**

Sažeci su otisnuti u obliku u kojem su poslani. Organizacijski odbor je, uz prijevod naslova rada, ponekad, minimalno modificirao pokoji riječ zbog stilističke i terminološke konzistentnosti na hrvatskom i engleskom jeziku. Stručni i znanstveni sadržaji u sažecima radova, kao i prilikom prikaza za vrijeme Kongresa osobni su stav autora (i/ili izlagača) i ne predstavljaju nužno stav Organizacijskog, odnosno Znanstvenog odbora Kongresa.

Organizacijski odbor

**Remark:**

*Please, kindly note that the abstracts have been published in the form they have been originally sent by the authors. The Organizing Committee, while translating the titles of abstracts from English to Croatian, or vice-versa, has slightly modified some words in a few situations due to the stylistic and terminological consistency. However, the opinion and attitude mentioned in the abstracts and during the Congress presentations represent the author's (and/or exhibitor's) personal view and do not necessarily reflect the opinion of the Congress Organizing and Scientific Committee.*

*Organizing Committee*

## **USMENA PRIOPĆENJA ORAL PRESENTATIONS**

## O-1

### THE PAST, THE PRESENT AND THE FUTURE IN TREATING FUNGAL INFECTIONS

*Roderick J. Hay*

School of Medicine and Dentistry, Queens University Belfast, Belfast, United Kingdom

There have been many changes in the range and efficacy of medications designed to treat fungal infections over the years. In the 18th century treatment depended on a combination of herbal cures such as garlic or simple adjunctive therapies including salicylic acid. With the development of specific chemical remedies and the advent of the modern pharmaceutical industry there have also been changes. In the superficial mycoses we have seen the replacement of griseofulvin as the sole oral agent with a choice of antifungals such as terbinafine, itraconazole and fluconazole. There has also been a great change in the use of these drugs. Treatment regimens for superficial mycoses have also altered with an increasing emphasis on shorter daily treatments (terbinafine), intermittent therapies given for a week (itraconazole) or weekly single doses of drugs (fluconazole). In the management of superficial mycoses by topical therapy the main change has been the demonstration that reduction of treatment lengths from one month to a single day, in the case of terbinafine in tinea pedis, is a possibility. These developments have brought about a better choice of agents for a wide range of mycoses. Newer agents such as voriconazole, caspofungin and posaconazole provide further opportunities mainly for the systemic infections. A second approach to the quest for better methods of treatment has been the development of novel drug formulations which either improve delivery, efficacy or toxicity. An important example of this is in the pursuit of more topical treatments for onychomycosis such as amorolfine and ciclopyroxolamine. This approach has involved the reformulation of topical therapies in suitable bases to enhance, for instance, the penetration of nail keratin. The development of transungual drug delivery systems (TUDDS) which usually rely on the evaporation of one component of a lacquer to deliver a higher concentration of drug directly into nail. In systemic mycoses the development of the lipid formulations of amphotericin B provides a further example. A third approach to improve therapy has been through the use of adjunctive treatments. New biologics have begun to play a key role. In mycology one interesting compound is the anti-Candida HSP antibody used for systemic candidosis in combination with amphotericin B. A final approach to improve on existing treatments has been the wider use of combinations of drugs eg terbinafine and amorolfine. If carefully selected, certain combinations may prove to be synergistic. This range of choice opens the possibility of providing individualised treatment depending on the patient, the organism and the extent and type of the infection.

## **O-2**

### **ACNE: SYSTEMIC TREATMENT**

***Andreas D. Katsambas***

“A. Sygros” Hospital, University of Athens, Athens, Greece

Acne vulgaris is a disease affecting mostly adolescents and young adults that, when severe, has the potential to result in scarring and permanent disfigurement. Systemic treatment is necessary to prevent significant psychological and social impairment in these patients. Significant inflammatory and nodulocystic acne is usually recalcitrant to topical treatment, whereas uncommon acne variants, such as acne fulminans, pyoderma faciale and acne conglobata need to be promptly and effectively controlled.

In all of these circumstances, systemic agents are indispensable. The choices include oral antibiotics, isotretinoin and hormonal treatment.

The particulars of these agents alone, in combination with each other and in combination with topical agents will be presented.

## **O-3**

### **PROFESIONALNE BOLESTI KOŽE - BOLESTI PO DUŠANU JAKCU U HRVATSKOJ**

***Jasna Lipozenčić***

Klinika za kožne i spolne bolesti Kliničkog bolničkog centra Zagreb i Medicinskog fakulteta Sveučilišta u Zagrebu, Zagreb

Profesionalne bolesti kože (PBK) obuhvaćaju skupinu kožnih bolesti koje su posljedica utjecaja radne sredine. U nekim slučajevima može se raditi o tome da bolesnik dolazi u kontakt s istim tvarima i izvan radnog mjesta. U Hrvatskoj na tom području velik doprinos dao je prof.dr. Dušan Jakac, stoga je ovaj rad i cijela 2. Glavna tema posvećena prof. Jakcu. PBK čine 13-34 % svih profesionalnih bolesti. U razvijenim europskim zemljama smanjuje se broj oboljelih zbog dobre zaštite na radu i zatvorenog tehnološkog procesa rada.

Koža je najveći organ na našem tijelu i podložna je raznim fizikalnim, kemijskim i biološkim utjecajima. Primarni je zadatak kože zaštita dublje smještenih tkiva, zatim regulatorna funkcija, zaštita od dehidracije, zaštita od penetracije iz okoliša kemijskih tvari, infektivnih agensa i antigena, zaštita od mehaničkih oštećenja, zaštita od ultraljubičastih zraka; osjetilni organ (4 osjeta). Ako je poremećena bilo koja od funkcija kože, pojavit će se simptomi bolesti. Oni se, međutim, mogu pojaviti i kao posljedica raznih alergijskih, upalnih, imunskih i infektivnih zbivanja u drugim organima. U nastajanju trajnih oštećenja kože može sudjelovati više faktora: zbog toksičnog djelovanja kemijskih i nekih fizikalnih faktora; zbog utjecaja ultraljubičastih zraka, rentgenskih i drugih ionizirajućih zračenja; zbog alergijskih zbivanja; imunskih mehanizama; metaboličkih promjena; genetičkih mehanizama i oštećenja kože nerazjašnjene etiologije. Ako želimo ocijeniti trajna oštećenja kože, potrebni su podaci o: 1. anamnezi; 2. kožnom statusu; 3. bolesnikovom općem stanju; 4. laboratorijske pretrage; 5. dijagnoza i 6. stručna sprema,

odnosno poslovi i radni zadaci koje obavlja osoba koju ocjenjujemo. Svi ovi podaci su neophodni za ocjenu trajnih oštećenja kože. U potvrdi profesionalnih bolesti kože primjenjujemo razne laboratorijske metode: standardni testovi (hematološki, biokemijski, imunološki i drugi), kutani testovi *in vivo* (mikološki, mikrobiološki, epikutani, foto-patch, atopy patch test (ATP), prick, scratch, konjunktivalni), te testovi *in vitro* (svjetlosna mikroskopija, elektronska mikroskopija, test blastične transformacije limfocita (TBTL); indirektni test degranulacije bazičnih granulocita (ITDBG- Shelley); određivanje ukupnih IgE imunoglobulina (radioimunološkim testovima RIST ili fotometrijskim na osnovi ELISA (enzyme linked specific antibodies; cellular antigen stimulation test - enzyme linked immunosorbent assay - CAST-ELISA); direktna imunofluorescencija (DIF); indirektna imunofluorescencija (IIF); određivanje komplemenata i njegovih funkcija; određivanje antinuklearnih protutijela (ANA). Kriteriji za prepoznavanje oštećenja kože moraju biti egzaktni i relativno jednostavni pri ocjenjivanju trajnih oštećenja kože. Unatoč svim nastojanjima, postoji opasnost da će mnoge ocjene sadržavati elemente subjektivnosti. Ocjenjivanje radne sposobnosti i invalidnosti najčešće je potrebno kod kontaktnih oštećenja, profesionalnih dermatitoza, autoimunih bolesti kože. Prikazat će se detaljno: kontaktni dermatitisi, kontaktna urtikarija, atopijski dermatitis, profesionalne akne, rentgenske keratoze, eritematozni lupus, sklerodemija, ihtioza, te radna sposobnost za svaku kožnu bolest.

Prof. dr. Dušan Jakac (Milun, Istra, Hrvatska, 1906-2004), dermatovenerolog, sveučilišni profesor, dekan Medicinskog fakulteta Sveučilišta u Rijeci (1961-1967), autor mnogih znanstvenih radova i udžbenika za studente medicine, član nacionalnih i internacionalnih liječničkih udruga, predsjednik Zajednice viših škola i fakulteta u Rijeci. Predstojnik Dermatološke klinike u Rijeci od 1957. godine do 1977. godine, kada je umirovljen. Publicirao je sam ili sa suradnicima 92 stručna i znanstvena rad, od kojih 17 u inozemnim medicinskim časopisima na talijanskom, njemačkom i engleskom jeziku. Profesionalne dermatitoze, fotodermatoze, rak kože, alergijske dermatitoze, palmoplantarne keratoze, nuspojave lijekova, bili su područja kojima se posebno posvetio. Prof. Jakac bio je priznat stručnjak na području profesionalnih dermatitoza. Sam ili sa suradnicima napisao je 10-tak radova o dermatitisima izazvanim kontaktom s naftom, objavljenih u hrvatskim, njemačkim i talijanskim časopisima. Zaokupljao ga je i problem oštećenja kože nastalih uslijed djelovanja klimatskih čimbenika kod ribara. Bio je voditelj znanstvenog projekta (58-0062 SIZ V.): "Proučavanje profesionalnih dermatitoza na području Istre, Rijeke i Gorskog Kotara". U svrhu usavršavanja na području profesionalnih dermatitoza boravio je Prof. Jakac 1957. godine i 1958. godina na Dermatološkoj klinici u Dortmundu. Primio je brojna priznanja, zahvale, povelje, plakete i diplome Medicinskog fakulteta u Rijeci i nagrade: Allgemeine Unfallversicherungsanstalt Österreich; Diplomu povodom 125. obljetnice Hrvatskog liječničkog zbora 1999. god.; Spomenicu i plaketu u povodu 100. obljetnice Klasične gimnazije u Pazinu - 1999; 1961. godine Nagradu grada Rijeke. Bio je predsjednik Udruženja dermatovenerologa Jugoslavije i predsjednik Kongresnog organizacijskog odbora Sedmog kongresa dermatovenerologa Jugoslavije, održanog u Opatiji, 1972. godine, na kojem je okupio 80 eminentnih inozemnih dermatologa iz 13 europskih zemalja. Tada je održano 50 referata kao dokaz ugleda i priznanja hrvatskoj dermatovenerologiji i nauci koja ne poznaje granice između država. Autor je knjige 1981. god. Dermatologija i venerologija. Prof. Jakac je od 1990. god. živio u Zagrebu. Bio je počasni član Dermatološke sekcije ZLH od 1984. god. i počasni član Hrvatskog dermatovenerološkog društva HLZ od 1994. god.

## **O-4**

### **ATOPIC DERMATITIS AND CANCER RISK**

*Hao Wang, Thomas L. Diepgen*

Department of Clinical Social Medicine, Occupational and Environmental Dermatology, University of Heidelberg, Heidelberg, Germany

**Background.** Epidemiological studies have provided growing evidence of a link between atopy and cancer risk.

**Objective.** The aim of this paper is to review the evidence from case-control studies and cohort studies on a possible association between atopic dermatitis (AD) and cancer risk, with particular attention to the case-definition of AD.

**Methods.** Studies with quantitative data on the association between AD (eczematous disease) and cancer risk were obtained from MEDLINE in combination with a review of cited references.

**Results.** In 23 publications, AD has been implicated in the risk of haematologic (childhood leukaemia (n=3), adult leukaemia (n=3), non-Hodgkin lymphoma (NHL) (n=4) and different haematological cancers (n=1)), pancreatic (n=5), skin (n=2) and brain malignancies (n=5). The overall picture of the results of these studies shows that a history of AD may be associated with a decreased risk of pancreatic cancer, brain tumour and childhood leukaemia, although in most instances the findings were not statistically significant. No consistent associations were observed for skin cancer or Non-Hodgkin's Lymphoma. The definition of AD had varying quality, and was imprecise in the majority of publications.

**Conclusions.** The findings of the epidemiological studies tend to support a lower risk of cancer among persons with a history of AD. Although a more careful definition of AD is needed, these epidemiological studies could provide an estimate of the background cancer risk in patients with AD when the long-term effects of treatments for AD are assessed.

## **O-5**

### **AIRBORNE OCCUPATIONAL DERMATOSES**

*An Goossens*

Department of Dermatology, Contact Allergy Unit, University Hospital Leuven, Leuven, Belgium

Acute and chronic dermatoses of the exposed parts of the body and especially the face are sometimes caused by substances that are first released into the atmosphere and then settle on the exposed skin. Dermatologists and occupational physicians (indeed, occupationally-induced reactions are still by far the most common) have to deal more often with airborne allergens (and irritants) than the literature would seem to indicate, but the awareness has grown over the years (1-5). Such allergens may be present in the air as vapours, gasses, droplets, or solid particles.

The skin reactions caused by an airborne agent are multiple (1-4): airborne irritant reactions (which are certainly more common than allergic reactions, although they are more difficult to demonstrate), allergic contact dermatitis, phototoxic and photoallergic reactions, (photo)contact urticaria, acne, the Baboon syndrome, exfoliated dermatitis, fixed drug eruption, hyper- and depigmentation, lichenoid eruptions, lymphomatoid contact dermatitis, paresthesia, pellagra-like dermatitis, purpura, pustular reactions, telangiectases, and erythema multiforme-like eruptions. A particular product can also cause several different reactions. In this presentation, we are primarily concerned with allergic reactions to airborne agents.

The most common sites for contact dermatitis caused by an airborne agent are the exposed (sometimes even occluded!) parts of the body, in most cases symmetrically affected, that are exposed to the air: the face, earlobes, neck, upper part of the chest, hands, wrist, and underarms. The upper eyelids are particularly susceptible to airborne allergens (and irritants) and sometimes they are the only sites affected, and conjunctivitis may also occur. Occasionally, the lesions may take a more generalized form (1). Inhalation may be responsible for certain lesion locations (e.g. in the major body folds) and respiratory problems may in some cases be associated.

Differentiating an airborne dermatitis from a photodermatitis may pose problems. However, allergic reactions on the following sites strongly suggest an airborne dermatitis as opposed to a photo-induced dermatitis, even though the latter may extend to shadowed areas:

- covered parts of the body, such as the major body folds, the genital region, and the lower legs in men (as materials may be trapped under clothing)
- anatomically shadowed portions of the body
  - the eyelids
  - the area behind the ears
  - the scalp that is covered by hair
  - the area under the chin.

The nature of the airborne allergens vary and may concern:

- vegetable and wood allergens
- plastics, rubber and glues
- metals
- industrial, household, laboratory and pharmaceutical chemicals
- agricultural chemicals (insecticides, pesticides, animal feed additives)
- cosmetics
- solvents

Extensive list of causal agents have been published in the literature (1-5).

Airborne allergens are suggested if the symptomatic complaints occur on particular parts of the body as mentioned previously, and when the symptoms clear when the patient changes environments. Patch testing should be performed with the suspected chemicals.

Light tests and photo-patch tests can be useful for excluding a light factor in the pathogenesis of the lesions. The differential diagnoses of airborne contact dermatitis must further include contact allergic reactions caused by other ways of contact, as well as other eczematous skin conditions, particularly atopic, and also seborrheic dermatitis.

## References

1. Dooms-Goossens AE, Debusschere KM, Gevers DM, Dupre KM, Degreef H, Loncke JP, Snauwaert JE. Contact dermatitis caused by airborne agents. *J Am Acad Dermatol* 1986; 15: 1-10.
2. Lachapelle JM. Industrial airborne irritant or allergic contact dermatitis. *Contact Dermatitis* 1986; 14: 137-145.
3. Dooms-Goossens A, Deleu H. Airborne contact dermatitis: an update. *Contact Dermatitis* 1991; 25: 211-217.
4. Huygens S, Goossens A. An update on airborne contact dermatitis. *Contact Dermatitis* 2001; 44: 1-6.
5. Goossens A, Huygens S. Dermatosos aerotransportadas profesionales. In: *Dermatologia profesional*. Eds. Conde-Salazar Gomez L, Ancona-Alayon A. Grupo Aula Medica, Madrid, 2004, pp. 289-300.

## **O-6**

### **OCCUPATIONAL DERMATOSES: NEW CHANCES FOR PREVENTION AND TREATMENT**

***Peter Elsner***

Department of Dermatology and Allergy, Friedrich Schiller University, Jena, Germany

Occupational and allergic contact dermatitis are the most frequent occupational diseases in many European countries. They do not only cause considerable morbidity, but they frequently lead to a loss of job and unemployment thereby having severe consequences for the workers. The quality of life of the patients affected is severely impaired. In this review, recent advances in the understanding of pathogenesis, clinics and diagnostics are presented. New therapeutic approaches apart from well-established treatments like topical corticosteroids and PUVA therapy include topical immunomodulators and modern systemic retinoids. Systematic research has shown that protective creams may work in the prevention of irritant contact dermatitis. However, an integrated approach including motivational and behavioural aspects is needed to make prevention work. Thereby, occupational dermatology is fulfilling the demands for better use of limited resources in the health system.

## References

Kanerva L, Elsner P, Wahlberg J, Maibach HI (eds.) (2000) *Handbook of occupational dermatology*. Springer, Heidelberg, Berlin, New York

## **O-7**

### **SKIN DISEASES DUE TO OCCUPATIONS IN ALCOHOLICS**

*Eugenija Žuškin, Jasna Lipozenčić<sup>1</sup>*

School "Andrija Štampar", School of Medicine; <sup>1</sup>University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

Alcohol abuse is associated with many health problems, especially skin changes. As a small, water and lipid soluble molecule, alcohol reaches all tissues of the body and affects most vital functions. Cutaneous diseases are now emerging as useful markers of alcoholism detectable at an early and possibly reversible stage of the disease, thus being of utmost importance to specialists of occupational medicine, dermatologists and general practitioners. The most common skin manifestations in alcoholics in various occupations are presented as: ethylic face (facies aethylica), spider nevi (nevus araneus), petechiae and ecchymoses, palmar erythema, flushing, caput medusae, urticarial and anaphylactoid reactions, porphyria cutanea tarda, cutaneous stigmata of cirrhosis, psoriasis, pruritus, acne vulgaris, seborrheic dermatitis, rosacea, nummular eczematous dermatitis, nail and hair changes.

The main question is whether the relationship between alcohol intakes is causative or simply a phenomenon associated with the chronic course of the diseases and its relation with social conditions, outcast feeling and low self-confidence. Alcohol consumption has adverse effects on all immune system components, thus rendering alcoholics susceptible to infections. Workers in construction in Croatia are the most frequent alcohol consumers.

Comprehensive allergologic testing should be done to differentiate the type of alcohol intolerance, to assess the severity of disease, and to exclude other potential causes (e.g., other alcohol drink ingredients, food, food additives).

Comprehensive research and numerous studies have demonstrated that the effects of alcohol are implicated in many skin diseases. Therefore, physicians should take alcohol abuse as the possible causative factor for skin diseases in consideration in their daily practice. Dermatologists should appraise the effect of alcohol and drug abuse on the etiology of their patients' skin diseases and compliance with treatments. Also, dermatologic tests should be part of medical examination in patients suspected to take excessive amounts of alcohol.

## **O-8**

### **RADNO MJESTO I KONTAKTNI ALERGIJSKI DERMATITIS**

*Višnja Milavec-Puretić, Jasna Lipozenčić*

Klinika za kožne i spolne bolesti Kliničkog bolničkog centra Zagreb i Medicinskog fakulteta Sveučilišta u Zagrebu, Zagreb

Bolesti kože uzrokovane radnom sredinom česte su profesionalne bolesti kože (PBK) u Hrvatskoj. U ovome radu se iznose klinički oblici PB, etiološki i klinički problemi, te paleta alergena ovisno o radnom mjestu bolesnika. Dermatitis u zdravstvenih radnika, npr. zbog čestog pranja ruku s raznim jakim alkalnim sapunima, detergentima i dezinficijentima

sima, nastaje iritativni dermatitis, a rjeđe kontaktni alergijski dermatitis, ponekad uz pio-dermizaciju. Od alergena napominjemo lateks rukavice, lokalne anestetike, instrumente s niklom, neomicin i parabene. Diferencijalna dijagnoza PBK je bitna naročito u slučaju dermatitisa dlanova i tabana, kao atopijskog dermatitisa, psorijaze, mikoza u bolesnika. Važna je suradnja liječnika medicine rada, dermatovenerologa, pulmologa, imunologa, infektologa i epidemiologa s liječnikom obiteljske medicine. U dijagnostičkom postupku najznačajniji je rezultat epikutanog testiranja (na standardne i profesionalne alergene), test ekspozicije i karencije, skarifikacijski-patch testovi, ocjena fizikalnog statusa kože i in vitro testovi) te mogućnosti liječenja. Etiološki čimbenici npr. u frizerskih radnika su boje za kosu, amonijev tioglikolat, parafenilendiamin, vodikov peroksid, šamponi. U tekstilnoj industriji su nitroboje, etilenurea, formaldehid, u građevinskoj industriji kalijev bikromat, cement, keramičke pločice, aditivi u asfaltu. U proizvodnji gume tiuram, karbamati, tiourea; u industriji plastike epoksidi, akrilati, fenolne smole, PVC; u industriji boja na vodenoj osnovi mertiolat, fenil živin nitrat i kloracetilamid; u industriji insekticida i herbicida su karbamati, lindan, pentaklorofenol, triazini, benzil benzoat; u industriji metala naročito spominje alergen nikel (kovani novac, metalne kopče, proizvodnja bižuterije). Kod pekara se nalazi iritativni i/ili alergijski dermatitis, naročito na antioksidanse (BHA, BHT), amonijev persulfat, benzoil peroksid, aditive za poboljšanje arome. Ovim radom istaknuti ćemo paletu zanimanja u usporedbi s kliničkom slikom i profesionalnim alergenima. Potrebno je educirati bolesnika s PBK o karenciji svakodnevnog kontakta s alergenima na koje je preosjetljiv, primjenu zaštitne odjeće i obuće te rukavica i zaštitnih krema i losiona. Prevencija profesionalnih dermatitisa, potreba za promjenom radnog mjesta, invalidnosti kože i racionalizacija u zdravstvu je bitna odrednica u zdravstvenoj ekologiji i medicini u cijelosti.

## **0-9**

### **OCCUPATIONAL SKIN DISEASES CAUSED BY UV RADIATION**

***Franjo Gruber***

Rijeka School of Medicine, Rijeka, Croatia

Ultraviolet radiation are non-ionizing rays which effect can be beneficial or cause numerous skin and eyes diseases. In some professions UV radiation in spite of the cutaneous defence (melanin synthesised by melanocytes, stratum corneum, urocanic acid) can led to occupational diseases. While some of these diseases are of little medical importance like in the case of pigmentations or other stigmata, some others cause serious concern. The UV radiation can provoke skin alterations alone, or in combination with endogenous or exogenous substances. The occupational exposure to solar UV radiation occur in outdoor workers and in indoor workers by artificial sources of UV. Today there is a concern regard the increase of UV radiation from solar origine resulting from depletion of the atmosphere ozone. The exposition to UV typically cause skin lesions in photoexposed areas: face, neck, hands. Prolonged exposure to UV rays cause photoaging, actinic keratoses, cheilitis actinica and more important malignant tumours such as basocellular cancer, keratoacanthoma, squamous cell cancer and melanoma. The exposure to UV rays in outdoor work frequently cause cancer in sailors, fishermen, farmers, asphalter, building workers. Indoor exposition to UV is present in welders causing erythema and

keratoconjunctivitis. Indoor UV radiation can cause lesions also in dentists, workers curing protection coating furniture and parquet, curing of inks, inspection of printed circuit board in the electroindustry, in the staff of tanning pools. In some workers contact with plants or dyes can cause phototoxic and photoallergic reactions. There is a necessity to prevent the exposure in workers exposed to UV radiation.

## **O-10**

### **WHAT YOU NEED TO KNOW ABOUT SEXUALLY TRANSMITTED INFECTIONS (STIs) FOR BEST PRACTICE IN 2006**

*Michael Waugh*

Royal Society of Medicine, Leeds, United Kingdom

Patients with sexually transmitted infections (STIs) continue to increase all over Europe and may present throughout a dermatovenereologists practice.

While traditionally they are young, quite frequently nowadays middle aged patients may ask for advice because of these problems. Paradoxically a higher income and more education does not mean that there is a less chance of being infected by an STI; the more social intercourse- then the more likelihood of partners for sexual intercourse.

Confidentiality is vitally important in consultation. Patients must feel at their ease and thus training is required in this very essential facility to those hoping to be a good sexual health physician.

Awareness of the wide spectrum of STIs and their often being more than one present means the dermatologist needs to have expert knowledge of local epidemiology and all possible clinical presentations. It has to be remembered that any orifice not just the genitals may be infected and can lead onto systemic infection.

An uncommon tropical STD-lymphogranuloma venereum has been seen over the last 3 years as an outbreak often with HIV and early syphilis, presenting with rectal symptoms in men who have sex with men first in the Netherlands but through western Europe.

Syphilis is increasing in Europe at the present time-just as a century ago the physician has to know it. Gonorrhoea increasingly is resistant not just to penicillin but also the quinolones. Chlamydial infection is usually found with gonococcal infection but is frequent on its own and underrecognised.

Viral STIs genital herpes and genital warts cause enormous problems in management and a great deal of real anxiety in the patient group.

Increasingly HIV infection if looked for, is found. Counselling needs to be performed before testing.

For all STIs up to date diagnostic facilities are needed.

Treatment Guidelines.

There are several global expert and useful ones and these should be adhered to.

Contact tracing (partner notification) is essential if sexual partners are known.

Education is essential and 100% condom use for all penetrative sex with anyone but a regular partner must be practised.

Sexual Health and its promotion should be a priority for every dermatovenereologist.

A happy physician and an even happier patient should be the outcome!

**THE HPV-GENITAL INFECTIONS - HOW ARE WE STANDING NOW?*****Mihael Skerlev, Lidija Žele-Starčević<sup>1</sup>, Suzana Ljubojević***

University Department of Dermatology and Venereology; <sup>1</sup> Department of Clinical Microbiology, Zagreb University Hospital Center, Zagreb, Croatia

*Human papillomavirus* (HPV)-associated genital pathology represents one of the major problems among STIs mostly due to the high recurrence rate, difficult eradication and oncogenic potential. Besides, the young, sexually active population in the generative period is mostly affected. Anogenital HPV infections are the most frequently diagnosed STIs of viral origin.

HPV genital infections are also one of the most frequent diagnoses in the Sexually Transmitted Diseases (STD) Outpatient Clinic of the Department of Dermatology and Venereology of the Zagreb University Medical School. As the very careful and friendly-orientated manner of taking the medical history and clinical examination is rather important in order to obtain the exact data, the clinical variations are presented ranging from clinically invisible or poorly visible, “asymptomatic” lesions to the bizarre forms of giant condyloma of Buschke-Löwenstein type. In spite of the fundamental importance of the clinical examination itself, we wanted to identify the HPV DNA type in these lesions. Over the last ten years, different diagnostic tools have been used for the patients with HPV genital infection including pathohistology and penoscopy in some cases. However, the results were not always precise enough whether the lesion is HPV-induced or not. Thus, we wanted to evaluate the significance of viral tests (PCR, hybridization) for HPV-induced, clinically visible lesions (condylomata acuminata, condylomata plana, Buschke-Löwenstein) in men. According to our results, HPV 16 and 18 have been isolated from “benign” HPV-associated genital lesions in 20% of patients, i.e. more than it is usually expected. Therefore, the diagnostic approach to HPV genital infections needs to be complex including HPV DNA typing whenever it seems appropriate.

Different methods are presented for the treatment of genital warts, such as cryotherapy, podophyllotoxin, curettage, podophyllin, and imiquimod (in the smaller group, as compared to other treatment modalities). It can be concluded that no definite treatment method has been clearly found superior so far. Thus, treatment should be guided by the available resources, the experience of the provider and the preference of the patient.

In general, it can be postulated that, over the last decade, the oncogenic properties of HPVs have been intensively studied. Significant progress has been achieved in the investigation of the HPV prevention. More than 35 types of HPV infect the genital tract; types 16 and 18 inducing about 70% of cervical cancer and high-grade cervical (and not only cervical) intraepithelial neoplasia (CIN), and HPV 6 and 11 causing 90% of anogenital warts. A prophylactic vaccine that targets these types should thus substantially reduce the burden of HPV-associated clinical diseases. The results of the most recent studies have clearly shown that a candidate quadrivalent HPV vaccine (6, 11, 16, and 18) was generally well tolerated, induced high-titres of serum antibodies to HPV types, and effectively prevented acquisition of infection and clinical disease caused by common HPV types. More extensive studies are on their way....

## **O-12**

### **ACTUAL DEVELOPMENTS IN THE TREATMENT OF SYMPTOMATIC ANOGENITAL HPV INFECTIONS**

***Gerd Gross***

Department of Dermatology and Venereology, University Hospital, University of Rostock, Rostock, Germany

Anogenital warts which are caused in more than 90% of cases by HPV6 and HPV11, represent the most common sexually transmitted viral disease. According to recent studies in Scandinavia, the burden of this symptomatic anogenital HPV infection seems to be increasing further.

With a quantified green tea extract a novel treatment of external anogenital warts has been developed recently. The quantified green tea extract is an extract from green tea leaves, containing a standardized mixture of green tea catechins (>80%), mostly (-)-epigallocatechin gallate (EGCG). Various formulations were investigated in Phase 1 to 3 clinical trials for efficacy and safety, pharmacokinetics, skin irritation and sensitization in the topical treatment of HPV-induced external anogenital warts (EGWs).

Two pivotal randomized, double-blind Phase 3 clinical trials comprising 1005 patients investigated a 15% and 10% Ointment of the green tea extract compared to placebo. Groups were well balanced for baseline parameters. Both formulations were statistically significantly superior to placebo regarding complete clearance of baseline and of all EGWs. Results for 15% Ointment were slightly superior compared to 10% Ointment. For both main efficacy endpoints, 15% Ointment achieved 67.3% and 65.1% complete clearance, respectively (ITT, observed case approach; pivotal studies combined). Clearance levels of at least 50% were achieved in 77.8% of patients. Recurrence rates were very low (<6.5%). These results were supported by a Phase 2/3 efficacy and safety study evaluating 15% Ointment and 10% Cream versus placebo. The results showed a statistically significantly higher efficacy for 15% Ointment for both gender combined compared to placebo, whereas the cream did not. Results from human and nonclinical pharmacokinetic studies indicated that only negligible amounts of catechins became systematically available after topical application of 15% Ointment. In the aforementioned studies as well as in Phase 1 skin irritation and sensitization studies, all formulations with the quantified green tea extract demonstrated a good safety profile with the majority of all local reactions/adverse events assessed as mild or moderate. Most of the local inflammatory skin reactions were observed in week 2 to 4 of treatment and were declining over time with continued treatment. They are likely part of the mode of action of this quantified green tea extract.

Results of the clinical development program indicate that quantified green tea extract (CAS 811420-59-4) is an efficacious and safe patient-administered treatment option for EGWs.

## **O-13**

### **HPV VACCINES AND IMIDAZOQUINOLINES - MISSION ACCOMPLISHED?**

***Reinhard Höpfel***

Department of Dermatology and Venereology, University of Innsbruck, Innsbruck, Austria

Prophylactic vaccines against anogenital cancer containing the HPV types 16, 18; 6, 11 will be soon available. This success is a paradigm of systematic research from bench to bedside: Detection of an oncogenic papillomavirus in cottontail rabbits (Shope: 1933) and 1983 in patients (HPV-16); characterisation of neutralising antibodies (1990); production of virus like particles in eukaryotic expression systems and “proof of principle” achieving protection in animal models (1993). And a decade later: First large clinical study published 2002 and approval (2006?) .

However, HPV-16 and 18 account for only ~ 70% of cervical cancer cases worldwide, further oncogenic HPV-types have to be added to. There also remains the possibility, that new HPV types could enter the niche vaccinated by HPV 16 and 18. There is still the need to improve therapeutic options: The immune response modifier (imiquimod) represents such a successful strategy: The exact mechanisms of imiquimod are unknown, it targets innate and cell-mediated immune pathways, and importantly, is thought to also have pro-apoptotic properties enhancing its efficacy against neoplasia in situ. Despite of this progress, a fascinating aim for the next future will remain to finally develop specific treatment options. The HPV oncogenes - the early (E) 6 and E7 proteins - are persisting tumour antigens and therefore attractive targets for highly specific interventions against HPV-lesions. The development of therapeutic vaccination with virus-like particles, consisting of chimeric virus capsid and E proteins, or the use of dendritic cells to enhance immunogenicity comprise options under investigation.

## **O-14**

### **THE PRESENCE OF HPV IN CONDYLOMAS AND HAIR FOLLICLES**

***Marko Potočnik, Mario Poljak<sup>1</sup>, Boštjan Kocjan<sup>1</sup>***

Department of Dermatovenereology, University Medical Centre Ljubljana; <sup>1</sup>Institute of Microbiology and Immunology, Medical Faculty, Ljubljana, Slovenia

Introduction: Genital infections with the human papillomavirus (HPV) are known to be the most frequent and the most increasing sexually transmitted infections. Condylomas are an epidermal manifestation attributed to the epidermotropic papillomavirus. Often recurrences in successfully treated patients with condylomas are difficult to explain, because it is difficult to prove or exclude the reinfection.

Material and methods. Our study was performed in 51 male patients with penile condylomas (aged 19-35 years) attending the STI Outpatient clinics in the Department of Dermatovenereology in Ljubljana. We removed the condylomas by excoheation and plucked at least 5 hairs with hair follicles from pubic, scrotal and perianal region and eyebrows. In the Institute of Microbiology and Immunology using PCR HPV genotypes were

determined in condylomas and in pubic, scrotal, perianal and eyebrow hairs of our patients with three sets of degenerate primers targeting all known HPV genotypes.

Results. HPV genotypes 6 and 11 were mostly detected in condylomas, but multiple infection with other HPV genotypes was found (with 1 HPV genotype in 76.47%, with 2 genotypes in 15.68% and with 3 genotypes in 7.84%). The same HPV genotype was detected in condyloma and in at least one specimen of hair follicles of the same patient 33 patients (66%). The presence of HPV was detected in the hair follicles in 72.6% of our patients. The infection of hair follicles from the pubic region was statistically more common than of scrotal and perianal region or the eyebrows.

Conclusion. The presence of genital HPV genotypes in plucked pubic and perianal hair suggests that there is an endogenous reservoir for HPV which may play a role in the recurrence of condylomas.

## **O-15**

### **DIAGNOSIS AND TREATMENT OF ASIMPTOMATIC HPV INFECTION IN MEN**

***Suzana Ljubojević, Jasna Lipozenčić, Mihael Skerlev, Lidija Žele-Starčević<sup>1</sup>, Nikola Ljubojević<sup>2</sup>, Damir Babić<sup>3</sup>***

University Department of Dermatology and Venereology; <sup>1</sup> Department of Clinical Microbiology, Zagreb University Hospital Center; <sup>2</sup> Polyclinic for Gynecology and Obstetrics, Dermatology and Venerology "Gynoderma"; <sup>3</sup> Department of Pathology, Department for Obstetrics and Gynecology, Zagreb University Hospital Center, Zagreb, Croatia

Genital human papilloma virus (HPV) is the most common viral sexually transmitted disease. HPV is associated with spectrum of diseases, from benign vulgar verruca, genital warts, to malignant cervical, vulvar, anal or penile cancer. Genital warts are one of the most common HPV related benign lesions of the both male and female genitourinary tract. Male patients generally present no clinical lesions, and those that have female partner with cervical intraepithelial neoplasia (CIN) might constitute a reservoir for high-risk HPV.

Flat warts (condylomata plana) are subclinical lesions that are difficult to detect without the special techniques (colposcopy-peniscopy) which involves 3-5% acetic acid, applied for 5-10 minutes. The HPV infected areas, whitened by the acetic acid, form so called "acetowhitening" phenomenon. Subclinical lesions show histological evidence of HPV infection, either by presence of koilocytosis, or less frequently, intraepithelial neoplasia. Latent infections are defined by presence of HPV DNA in areas with no clinical or histological evidence of HPV infection. We suggest using peniscopy together with HPV DNA tests (Hybrid Capture II, PCR, in situ hybridization, Southern blots tests) and occasionally, in suspected cases perform biopsy.

Treatment for genital warts remains unsatisfactory, there is no cure for HPV infections and recurrences are common. The following HPV infection treatments are available: podofilox, podophyllin, cryotherapy, topical 5-fluorouracil, trichloroacetic acid, intralesional interferon, systemic interferon, intralesional bleomycin, electro-surgery, classic and laser surgery. Imiquimod, a new topical immunotherapeutic agent, which induces interferon and other cytokines, has the potential to be a first-line therapy for genital warts.

Men are usually reservoir of the virus, which lives in latent form on genital mucous membranes, and this subclinical, asymptomatic infections can be oncogenic factor(s) in development of cervical cancer. Attention must be paid to control and early diagnosis to prevent neoplastic evolution

The suggestion of algorithm for diagnosis treatment of HPV infection is proposed

## **O-16**

### **IMAGE ANALYSIS IN DERMATOLOGY**

*Vladimir Hegyi*

Department of Pediatric Dermatovenereology, School of Medicine, Comenius University, Bratislava, Slovak Republic

Humans are visual creatures (we describe beauty in visual terms, we categorize visual features of importance to us, we compare an object's size with the size of a standard, we also compare the shape of an object with other familiar shapes).

Image analysis attempts to formalize this type of process by the use of an image analyzer. An image analyzer comprises an image acquisition device, a means for converting the image to digital form, and software/hardware to process the data in order to extract the desired information from it. Image analysis is the process of identifying objects and shapes in a photograph or other visual image. Image analysis is an operation or set of operations designed to yield a numerical or logical result from an image which can be expressed in non-image terms. Image analysis is often preceded by image processing. Image analysis software performs three fundamental processes of image analysis: gridding, segmentation and information extraction.

Considering that color is a visual feature of primary interest for dermatology, in this phase standard color spaces are studied and also those specifically oriented to dermatological images. The initial goal is the development of models and algorithms to solve some open problems in the analysis of color regions and in classification. Morphological image analysis is based on the idea that images represent a collection of spatial patterns that can be analyzed by the way they interact with some pre-defined patterns.

Imaging the human body to detect the signs of disease is a routine part of medical practice. Only in the last decade has significant research been undertaken to further develop techniques for specifically examining the skin. Advances in both the technology of imaging instruments and computer systems have greatly assisted this process and brought it closer to the clinical realm. The visual nature of dermatology lends itself well to surface imaging. Illustrative documentation of dermatological conditions has been an established practice in dermatology throughout the centuries. The use of cutaneous imaging techniques for improving management of skin problems remains a novel area for most dermatologists, where the traditional approach to skin diagnosis rests with visible inspection with or without a biopsy. Specialized digital photography, polarized photography, epiluminescence microscopy (ELM), surface microscopy, 3-D imaging, stereomicroscopy, ultraviolet (UV) light photography, are some of the techniques that are currently being used to specifically examine the skin.

Significant advances have been made in the last decade with respect to direct imaging of the skin. No longer is the clinician limited to simple sight-and-touch examination and biopsy for dermatological diagnosis. Non-invasive assessment of a wide variety of skin conditions in vivo is now possible through the use of specific cutaneous imaging instruments, which allow the clinician to visualize the structure and properties of skin in a manner well beyond that achievable through simple naked-eye examination.

## **O-17**

### **COSMETIC INTERACTION**

***Mohamed Amer***

Department of Dermatology, Faculty of Medicine, University of Zagazig, Zagazig, Egypt

Cosmetics have been playing a big role in dermatology in the past few decades. Many products are available now in the market and their usage became very common by every one. The choice of the appropriate cosmetic is the main issue as patients has been using some of these cosmetics without taking dermatologists opinion; so many problems have been occurring as many interaction made us suffering a lot.

The interaction between different cosmetics is new problem as cosmetics became a lot these days. The usage of the right cosmetic now is the main goal in my talk and the best results of different products.

## **O-18**

### **TWENTY YEARS OF ISOTRETINOIN IN THE TREATMENT OF VARIOUS FORMS OF ACNE VULGARIS**

***Aleksandra Basta-Juzbašić***

University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

Oral isotretinoin revolutionized the treatment of acne when it was introduced in 1982. Till now, it remains the most effective anti-acne pharmacotherapy since it is the only treatment that affects all major aetiological factors implicated in acne; significantly reduces sebum production, comedogenesis, surface and ductal colonization with *P.acnes* and monocyte chemotaxis. Oral isotretinoin is established as a uniquely successful therapy capable of long-term remission in up to 70-89% of patients.

In the beginning its use was restricted predominantly to patients suffering with severe nodulocystic acne. With increasing clinical experience, however, its use has been expanded by many physicians to include patients with less severe disease who are responding unsatisfactorily to conventional therapies such as long-term antibiotics and appropriate topical therapies, especially if there is scarring or psychological stress associated with the disease.

Treatment is usually initiated at daily doses of 0.5 mg/kg - 1.0 mg/kg per day, adjusted according to response and side-effects. The therapy duration is 16-30 weeks, depend-

ing upon daily dose. The long-term benefits of isotretinoin in otherwise therapy resistant acne, producing long-term remission, is when the given cumulative doses are greater than 120 mg/kg.

In our Dermatological Department isotretinoin is used from 1983. At first in patients with acne conglobata, but later also in less severe variants of acne.

From then we have an average of 60 acne patients annually, altogether around 1500 patients treated with isotretinoin. From 2002-2005 we follow 186 acne patients /143 males aged from 14-44 years and 43 females aged from 16-37 years/ suffering from various forms of acne vulgaris (acne conglobata, acne papulopustulosa, acne fulminans and acne inversa). The efficacy of isotretinoin in almost all patients is very good, except in patients with acne inversa, and the side effects are tolerable. In only 7 patients we stopped isotretinoin after two to three month because of elevated cholesterol, triglycerides, epistaxes or headache. All side effects disappeared after the cessation of isotretinoin.

Compared to prolonged treatment with conventional systemic antibiotic therapy isotretinoin is also cost-effective. Rotational antibiotic therapy is not only less effective than isotretinoin, slower in onset of action and a potential public health hazard in terms of bacterial resistance, but substantially increases costs to patients or insurers. So, it is important to remember that retinoids do not promote bacterial resistance and should be prescribed sooner rather than later, not only in severe acne but also to patients with less severe disease.

## **O-19**

### **THE LASERS AND IPL TREATMENT OF PIGMENTED SKIN LESIONS**

***Igor Bartenjev***

Dermatologija Bartenjev, Ljubljana, Slovenia

Objectives: During recent years, requests for treatment of pigmented skin disorders due to cosmetic reasons have increased considerably.

Demand is also increasing for less or non-invasive methods, with a postoperative course that does not affect the patient's normal daily activities.

Various benign epidermal and dermal pigmented skin lesions are among indications for the use of different laser systems as well as for IPL technique.

The CO<sub>2</sub> ultrapulse and Er:YAG lasers are effectively used for those indications for more than ten years, but in last few years IPL /intense pulsed light/ therapy increasing rapidly.

Study: Solar lentigo, senile lentigo, melasma, Becker nevus, congenital nevus and tattoo were lesions where IPL therapy have been used in 87 patients and CO<sub>2</sub> ultrapulse / Er:YAG laser treatment in 157 patients in the years 2001-2004.

Results: Both lasers allow precise depth control and char-free ablation of the tissue. Epidermis was removed on layer-by-layer basis. Deeper dermal lesions were more effectively removed by using CO<sub>2</sub> ultrapulse laser, because bleeding can stopped further procedure by use of the Er:YAG laser. Side effects observed in our patients after laser treatment were rare transient hyperpigmentations /CO<sub>2</sub> ultrapulse laser/. Both

ablative lasers are rather invasive and patients recovery took 10 days or more. Complete sun protection is necessary for 4-6 weeks. Majority of lesions were removed after only one treatment.

IPL technology offers a gentle, non-invasive removal of superficial pigmented skin lesions. Effect was good or excellent in nearly all cases of epidermal or junctional pigmentations (2-4 treatments), with no oedema, blistering or burns. Post operative course did not affect patient's normal life, except photoprotection for 4 weeks after each treatment. Deeper dermal pigmentations were removed successfully, but healing can be due to dermal damage longer than after laser therapy (3-4 weeks). Side effect after IPL treatment were rare, hypopigmentations, hyperpigmentations and delayed healing (dermal pigmentations) have been observed.

Conclusion: IPL technology and laser surgery represents nowadays interesting, modern treatment possibilities of benign pigmented lesions. Development of new techniques is promising but can not always replace older methods. For best results it is important to connect technical possibilities with knowledge and experience.

It is still not answered the major question -- when and what kind of pigmented lesions could be removed without pathological examination and especially by whom?

## **O-20**

### **LASER THERAPY OF PHOTODAMAGED SKIN.**

***Zrinka Bukvić Mokos, Jasna Lipozenčić, Daška Štulhofer Buzina, Krešimir Kostović, Romana Čeović***

University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

Skin photoaging the gradual deterioration of cutaneous structure and function following chronic sun-exposure. Clinical features of actinically damaged skin include dryness, irregular pigmentation, wrinkling, elastosis, inelasticity, telangiectasia, venous lakes, purpura, comedones, and benign, premalignant and malignant skin lesions. The most effective approach in protection from photodamage is avoidance of sun exposure; however, there are numerous therapeutic procedures which are used to improve the skin changes already present. Laser therapy is valuable addition to the management of the signs of photoaging. Vascular-specific lasers are used for treatment of telangiectasia, senile angiomas and other vascular lesions. Dyspigmentation of photoaged skin is treated with pigment-specific lasers. Ablative lasers systems have recently come into favor for treatment of facial rhytides, scarring and removing of benign skin lesions. Here we present our experiences in management of photodamaged skin using diode 532 nm laser, Q-switched ruby laser, Er:YAG laser and carbon dioxide laser.

## **O-21**

### **LASER TREATMENT AS THERAPY OF CHOICE IN VASCULAR AND BENIGN DERMATOLOGICAL LESIONS**

***Štefica Kedmenec-Bartolić***

Private practice for dermatology and venereology, Čakovec, Croatia

Development of hi-tech high-power laser systems gives new therapy possibilities in treatment of various new skin formations and vascular changes resulting in a very satisfactory esthetic appearance in most cases without scarring or other negative effects.

I have experience with laser treatments with lasers of medium strength, short wave, i.e. with a laser with a pump of 532Nm and a diode in solid state, of working power of 5W, CW.

Laser treatment can be used on all types of patients; a dermatologist's choice of patients is based on his treatment experience.

Good results can be achieved in treatments of hemangiomas, teleangiectasias, benign dermatological formations as verrucas, hydradenomas, epidermal nevi, xantelasmas, etc. Possible negative effects of treatments with the named laser are dispigmentation, hyperpigmentation, scars, secondary infections and haemorrhages.

As all other treatment procedures in dermatology, laser treatment can have its limitations, but despite of that it is an efficient, up to date and interesting therapy treatment in dermatological practice.

## **O-22**

### **OUR EXPERIENCE IN TOPICAL PHOTODYNAMIC THERAPY WITH 5-AMINOLEVULINIC ACID**

***Krešimir Kostović, Aida Pašić, Romana Čeović, Damir Hrsan***

University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

In January 2004, we have started topical photodynamic therapy in the treatment of epithelial precancerous and cancerous lesions. Lesions were treated by topical application of 20% 5-aminolevulinic acid (ALA) dissolved in a proprietary oil-in-water emulsion. The ALA containing emulsion was applied under occlusive dressing 5-6 hours before illumination with noncoherent red light (wavelength 630-700 nm, light dose 100-150 J/cm<sup>2</sup>). So far, we have treated 50 patients (twenty-four men and twenty-six women) with precancerous and cancerous skin lesions. Twenty patients had superficial basal cell carcinomas, eleven patients had other types of basal cell carcinomas, eleven had Bowen's disease and eight patients had other precancerous or cancerous lesions. Nine patients had recurrences after surgical excision and/or radiotherapy. In most patients complete or partial regression was achieved after 1-3 treatments.

## **COMPLICATIONS IN DERMATOSURGERY**

*Mirna Šitum, Klaudija Šebetić, Marija Buljan*

Department of Dermatology and Venereology, Sestre milosrdnice University Hospital, Zagreb, Croatia

Dermatosurgery has been gaining in importance and evolved enormously within recent years and, the range of conditions being treated is also being broadened. Epidemiological trends in skin cancer also lead to considerable growth in demand for outpatient dermatological surgery.

Surgical complications are both worrisome and expected. Bleeding is one of the most common complications. Control of bleeding process is essential for achieving an optimal surgical outcome. The negative outcomes of excessive bleeding, either intraoperatively or postoperatively, are often related. For example, increased postoperative bleeding can result in edema or a hematoma, which can cause necrosis, leading to wound dehiscence and cosmetically unacceptable scar.

In most cases bleeding caused by cutaneous surgical procedure can be controlled with electrocautery, electrocoagulation, or electrodesiccation. Even with careful hemostasis, postoperative bleeding does occur in a small number of patients.

Local anesthetic agents are commonly used in cutaneous surgery and are considered to be safe when used properly. However, each surgeon should be aware of the possible complications from local anesthetics which include necrosis, regional and systemic allergic reactions, and systemic toxicity. Electrosurgical surgery can sometimes cause excessive tissue damage, resulting in charred tissue that can be a nidus for postoperative inflammation and delayed healing. Almost any substance applied to skin can cause irritant or allergic reactions. In dermatosurgery most commonly seen are reactions to topical anesthetics, preparation agents (betadine, chlorhexidine, benzoin tincture etc.), topical antibiotics and latex products. Vasovagal syncope is relatively common complication during minor surgical procedures.

Infections are relatively rare in uncomplicated dermatologic surgery. The early recognition and treatment of wound infection is important to minimize possible wound dehiscence and increased scarring, as well as more serious toxic shock, sepsis and osteomyelitis.

Necrosis occurs when the blood supply of the healing wound is inadequate. Teleangiectasias along the healed wound can be seen in cases of hypertrophic scars, keloids, and widened scars. Granulation tissue can develop in the presence of a certain barrier to complete wound healing, and trapdoor deformities occur when a portion of a flap or a graft becomes elevated by thickened tissue. Hypopigmentation and hyperpigmentation can appear as a result of an inflammation caused by surgical procedures. Complications are commonly interrelated. The cause of wound separation or dehiscence are many- delayed wound healing from systemic disease or medications, excessive wound tension, hematoma, wound infection, or premature suture removal.

The importance of dermatosurgery can be expected to continue increasing in the future, and the dermatologists should therefore prepare themselves for the present and future challenges inherent in surgery of the skin, including the awareness of it's possible, and sometimes inevitable complications.

**THE GENETICS OF PSORIASIS - WHAT'S NEW?**

***Aida Pašić***

University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

Psoriasis is a multifactorial, heterogenetically inherited disease. The role of hereditary transmission is supported by familial aggregation, twin studies, and association with human leukocyte antigens (HLA). Numerous studies have proved that HLA B13, B57, Cw6 and DR7 antigens are positively associated with different types of psoriasis. Cw6 antigen has been repeatedly implicated as the most significant marker to predict the risk of the disease. On the basis of epidemiological study and HLA association, a concept of two distinct disease patterns of psoriasis vulgaris has been proposed. Type I psoriasis has early appearance, familial inheritance, and strong correlation with Cw6, B 13, B57 and DR7 antigens. In contrast to type I, type II psoriasis has late onset, weak correlation with HLA antigens and rare familial occurrence of the disease. Some extended haplotypes have been shown to correlate with type I psoriasis.

Although a psoriasis susceptibility gene (s) has not yet been identified, a number candidate genes were studied (PSORS 1 to PSORS 9). PSORS 1 as a major gene for psoriasis susceptibility has been mapped to its vicinity. A previous analysis has identified multiple risk haplotypes carrying HLA-Cw6 and one haplotype (cluster 17, HLA Cw8 -B65) that appear to carry the risk of psoriasis but do not carry HLA-Cw6. This haplotype is very similar to other risk haplotypes. However, the new genotypes recently acquired by different methods have failed to confirm the previously reported association. The results of the Cluster 17 Collaboration Group indicate that cluster 17 (PSORS 2) does not carry a psoriasis susceptibility allele, and expand the PSORS 1 risk interval to approximately 300 kb.

In conclusion, HLA Cw6 confers the largest and the most consistently demonstrated risk factors, especially for psoriasis type I. Today, it is also clear that a major candidate gene(s) for psoriasis is located within MHC complex and that it is linked with the HLA-Cw6 locus. Understanding of the genetic basis of psoriasis will represent a major advance in our knowledge of the disease and will reveal novel disease-specific biologic pathways. This information will be used to develop more specific diagnostic and prognostic tools, and will also lead to the development of individualized treatment plans.

## **O-25**

### **ACTION MECHANISM OF PHOTOCHEMOTHERAPY (PUVA) IN PSORIATIC PATIENTS**

***Romana Čević, Aida Pašić, Jasminka Jakić-Razumović, Jasna Lipozenčić***

University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

**Introduction.** According to current concepts, psoriasis is an autoimmune, T-lymphocyte induced, cytokine and chemokine mediated disease. The exact cause of psoriasis remains unknown, therefore the treatment is symptomatic. PUVA photochemotherapy has for years been very successfully used in the treatment of psoriasis vulgaris involving more than 30% of the skin area but the mechanism of its action has not yet been fully elucidated.

**Objective.** The aim of the study was to investigate the antiproliferative, antiangiogenic and apoptotic action of photochemotherapy (PUVA), and to compare it with the clinical picture of the disease.

**Methods.** Proliferating keratinocyte count was immunohistochemically determined by use of anti Ki-67 antibodies, the number of blood vessels in the dermis by use of F-8 antibodies, and cell count expressing apoptotic oncogenes by use of anti bcl-2 antibodies, all these before and after photochemotherapy (PUVA). PASI score was determined before and after treatment. The study included 30 patients with psoriasis vulgaris with indications for photochemotherapy (PUVA).

**Results.** Study results demonstrated the antiproliferative, antiangiogenic and apoptotic action of photochemotherapy. Photochemotherapy (PUVA) was found to efficiently act on the main pathogenetic mechanisms of psoriasis, and to significantly improve the clinical picture of psoriasis patients.

**Conclusion.** In spite of the ever growing fear from UV exposure, even for therapeutic purpose, we believe that because of its efficacy demonstrated in the present study, photochemotherapy (PUVA) will for quite a while remain the first choice therapy in the management of psoriasis vulgaris involving more than 30% of the skin area in patients free from contraindications for this therapy.

## **O-26**

### **ANTIANGIOGENIC EFFECTS OF NAPHTHALAN IN PSORIASIS**

***Pero Vržogić, Jasna Lipozenčić<sup>1</sup>, Jasminka Jakić-Razumović<sup>2</sup>,***

Naftalan Special Hospital for Medical Rehabilitation, Ivanić Grad;

<sup>1</sup> University Department of Dermatology and Venereology, and <sup>2</sup> Department of Pathology, Zagreb University Hospital Center, Zagreb, Croatia

**Background.** Psoriasis is Th1 cytokine disease and an angiogenesis-dependent disease and identifies vasoproliferation as a suitable target for the development of anti-psoriatic drug. However, advance in our understanding of the angioproliferation in psoriasis has been made only recently.

**Aim.** The therapeutic implication the angiogenesis in psoriasis has been studied by many investigators. The factors that control angiogenesis in psoriasis are of interest.

**Methods.** Therapeutic properties of Naphthalan, naphthene-based earth oil, is basis of antipsoriatic treatment regimen. Immunohistochemical analysis (cell immunophenotyping before and after 3 weeks of treatment with naphthalan oil) was performed on biopsy specimens from 10 patients with psoriasis vulgaris. To determine the angiogenetic factor in psoriatic lesions, immunohistochemical staining on 3- $\mu$ m paraffin block sections was performed by using monoclonal anti-Factor VIII antibody.

**Results:** There was a significant difference in the mean number of new blood vessels before and after the therapy (15.1 vs. 6.7). It seems that naphthalan reduces number of new blood vessels and proved antiangiogenic properties in patients with psoriasis.

## **O-27**

### **SERUM AND TISSUE ANGIOTENSIN-CONVERTING ENZYME ACTIVITY IN PATIENTS WITH PSORIASIS**

***Faruk Alendar, Jasminko Huskić, Asja Prohić, Aida Šećerbegović***

Department of Dermatology and Venereology, Sarajevo Clinical Center, Sarajevo, Bosnia and Herzegovina

Serum and tissue angiotensin-converting enzyme (ACE) was measured in 60 patients with psoriasis and in 20 healthy individuals. According to clinical forms of psoriasis, the patients were further divided into three groups: psoriasis with solitary lesions (n=20), psoriasis with multiple disseminated lesions (n=20) and erythrodermic psoriasis (n=20). The serum ACE activity was determined before and after therapy, by the spectrophotometric method using hippuryl-l-histidyl-l-leucine as a substrate. Before therapy, serum and tissue ACE activity was significantly increased in patients with psoriasis in comparison to healthy individuals. After therapy, serum and tissue ACE activity was significantly decreased in all clinical forms of the disease. Determination of serum and tissue ACE activity might be a good non-specific parameter for the diagnosis of psoriasis and assessment therapeutic effects.

## **O-28**

### **ANXIETY AND DEPRESSION OF PSORIATIC PATIENTS DURING PHOTOTHERAPY**

***Mirijana Pernar, Edita Simonić<sup>1</sup>, Larisa Prpić Massari<sup>1</sup>, Marija Kaštelan<sup>1</sup>, Liliana Stojnić Soša<sup>1</sup>, Tanja Frančišković, Jasna Grković, Ljiljana Moro***

Department of Psychiatry and <sup>1</sup> Department of Dermatovenereology, University Hospital Center Rijeka, Rijeka, Croatia

Phototherapy for psoriatic patients lasts about three months and requires regular attendance at the therapy. The continuous therapy leads to a certain state of emotional relation between the patient and the dermatologist and other members of the team. At some patients an exacerbation of psoriasis has been noticed at the end of a three month phototherapy. The aim of the study is to find whether there is an increase of anxiety and

depression near the end of the therapy at the situation of separation from the dermatologist. Patients (N=20) are middle-aged persons and have been suffering from many years. The level of anxiety and depression is measured by Hopkins scale at each phototherapy with parallel monitoring of PASI score in the beginning and the end of therapy.

## **O-29**

### **OLD DRUG - NEW INDICATION. RIFAMPICIN IN PSORIASIS**

***Nikolai Tsankov, Ivan Grozdev, Jana Kazandjieva***

Department of Dermatology and Venereology, Medical Faculty, Sofia, Bulgaria

**INTRODUCTION:** The efficacy of traditional systemic therapies for psoriasis is limited by various side effects, toxicity, drug-drug interactions, and the need for frequent laboratory monitoring.

In animal models Rifampicin causes immunosuppression and in conventional doses it suppresses the T-cell function.

**AIM:** To share that Rifampicin has a therapeutic effect in eruptive psoriasis and to try to explain its mode of action.

**MATERIALS AND METHODS:** 76 patients (34 men and 42 women, aged between 12 and 68 years) with eruptive psoriasis were enrolled in the study. They were divided into two groups according to the evidence of a concomitant streptococcal infection.

Rifampicin was administered orally in a 600 mg daily dosage for at least 60 days. Only emollients were given for topical therapy.

**RESULTS:** A statistical (Chi ( $\chi$ )-square test) analysis was done and it could be concluded that the improvement in the two groups is statistically indistinguishable ( $p=0,892$ ). While the comparison with the control group shows significant difference ( $p=0,00082$ ).

**CONCLUSION:** The results express that there is no statistically significant difference between the treating groups and the effect of Rifampicin could not be related only to its antimicrobial properties. Its therapeutic effect most probably is due to its immunosuppressive properties.

## **O-30**

### **A NEW NAPHTHALANE PREPARATION IN THE MANAGEMENT OF PSORIASIS**

***Gordana Krnjević-Pezić, Pero Vržogoić, Ankica Smeh-Skrbin, Jasna Lipozenčić<sup>1</sup>, Aida Pašić<sup>1</sup>***

Naftalan Special Hospital for Medical Rehabilitation, Ivanić Grad; <sup>1</sup> University Department of Dermatology and Venereology, Zagreb, University Hospital Center, Zagreb, Croatia

**Introduction:** Psoriasis is inflammatory skin disease. In Croatia, the prevalence of psoriasis has been estimated to 2%. At Naftalan, special hospital for medical rehabilitation, brown naphthalene has been used for 15 years in the treatment of psoriasis. Naphthalene is obtained from naphtha, a complex mixture of various compounds, mostly hydrocarbons. Naphthalene AA-final is a naphthalene preparation enriched with sterans, con-

stituents believed to represent active naphthalene components, while the content of poliaromatics has been substantially reduced. Experimental model studies revealed no genotoxicity. The preparation is available in the form of oil.

**Aim:** To determine clinical efficacy of new Naphthalene preparation in patients with psoriasis vulgaris in a pilot study.

**Patients and methods:** 15 patients were included in our study (six female and nine male), mean age 50,2 (range 39-63) years. Upon obtaining an informed consent in writing from all study patients, Naphthalene oil was applied over involved skin areas once daily. After half one hour, the patients mechanically removed residual preparation from the skin and took a shower. The treatment lasted for three weeks. PASI score was recorded before, then at two and three weeks of treatment. The biochemistry parameters of complete blood count, blood glucose, SGOT, SGPT, GGT, and antinuclear factor were determined, and photos of target lesions were taken at the beginning and at the end of treatment.

**Results:** The mean PASI score was 21,4 at the beginning and 7.77 at the end of treatment, respectively. The preparation tolerability was ranked high by both the patients and the physicians. No side effects were observed. In two patients increased levels of bilirubin, AST, ALT and gamma GGT were found before and after treatment.

**Conclusion:** The new Naphthalene preparation, proved efficacious in all 11 study patients with psoriasis vulgaris, with no side effects. New Naphthalene preparation is a useful local agent for use in rotation therapy of psoriasis.

## **O-31**

### **CICATRICAL ALOPECIA AS A MANIFESTATION OF DIFFERENT DERMATOSES**

***Lenka Oremović, Liborija Lugović, Majda Vučić<sup>1</sup>, Marija Buljan, Suzana Ožanić Bulić***

Department of Dermatology and Venereology; <sup>1</sup> Department of Pathology, Sestre milosrdnice University Hospital, Zagreb, Croatia

There are a series of dermatoses which cause cicatricial alopecia when they are located on the scalp. All scarring processes can damage the hair follicle, with subsequent hair loss and irreversible alopecia. Histologically, it is characterized by dermal scarring, often relatively deep, along with absent or reduced hair follicles and reduced number of erector pili muscles. The most common causes of cicatricial alopecia are discoid lupus erythematoses (DLE), lichen planus, pseudopelade, chronic folliculitis, sarcoidosis, morphea, mucinosis follicularis, etc.

The aim of this study was to examine the cause of scarring alopecia by anamnestic data, clinical findings and histopathological examination. All patients with cicatricial alopecia in our study were hospitalized in our Clinic during the period of the last 5 years.

Histopathological examination showed different underlying dermatoses (discoid lupus erythematoses, chronic folliculitis, pseudopelade, mucinosis follicularis), although, some biopsies showed nonspecific histopathological findings.

Our clinical experience indicates that this type of alopecia should attract more attention and studying in the future.

## **O-32**

### **WHAT IS NEW IN THE MANAGEMENT OF ALOPECIAS ?**

***Andrija Stanimirović<sup>1</sup>, Mihael Skerlev<sup>2</sup>***

<sup>1</sup> School of Health Studies, University of Zagreb, and Novaderm Clinic for Skin Diseases; <sup>2</sup> University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

Hair loss, or alopecia, is a common patient complaint and a reason for significant physical and psychological distress. The majority of common hair loss disorders can be correctly diagnosed in the outpatient clinic with a systematic evaluation of the patient. This presentation will focus on clinical approach to the patient with alopecia by describing the patient's history, clinical findings, and diagnosis of various hair loss disorders. The special point will be given on new therapeutic possibilities.

Androgenetic alopecia, alopecia areata, and telogen effluvium are the primary nonscarring alopecias observed in every-day clinical practice. Androgenetic alopecia is considered to be the most common form of human alopecia and is postulated to affect more than 50% of men by the age of 50. Alopecia areata affects up to 2% of entire population. Telogen effluvium frequently occurs after major life distresses, such as a severe illness or accident, after childbirth, and may be associated with the use of several medications or iron deficiency.

Concerning cicatricial (scarring) alopecias, the outcome of current treatments is a clinical remission with a significant decrease of symptoms and signs, but the progression of hair loss may continue insidiously. Unfortunately, current treatments do not stop the underlying disease process. Choice of treatment is guided primarily by the histopathologic findings, including the type, location and extent of the predominant cellular inflammatory infiltrate, and the ranking of the clinical disease activity. Cicatricial alopecias with predominantly inflammatory lymphocytic infiltrates are treated mostly with immunomodulating agents, and those with predominantly neutrophilic infiltrates are treated firstly with antimicrobial agents.

In a patient with a sexually transmitted disease (STD), alopecia may be an important associated finding and can provide clues to diagnosis. Specifically, we point out alopecia in association with syphilis and human immunodeficiency virus (HIV) infection/AIDS as well as the medications used to treat these infections.

## **O-33**

### **PSYCHOLOGICAL EFFECTS OF ANDROGENETIC ALOPECIA ON WOMEN AND MEN**

***Lenka Oremović, Maja Vurnek, Ines Sjerobabski-Masnec, Nevja Delalle Lozica, Gabi Novak-Bilić***

Department of Dermatology and Venereology, Sestre milosrdnice University Hospital, Zagreb, Croatia

Throughout human history hair on the human head has had great symbolic importance. Today, hair growth and hairstyle are important elements of an individual's identity, both to the individuals themselves and to identity as perceived by others. The negative psy-

chological impact of hair loss has been documented in both men and women. Hair loss can result in low body-image satisfaction, low self-esteem and anxiety, and it has a significant influence on patient's quality of life.

The aim of this study is to investigate the influence androgenetic alopecia may have on psychological status and quality of life of our patients.

The study will be conducted at the Clinic for dermatovenereology, Clinical hospital "Sestre Milosrdnice". After visiting the dermatovenereologist (who will assess the severity of their hair loss), patients will be given psychological questionnaires. In this study, 60 patients (30 women, 30 men) suffering from androgenetic alopecia will take part, as well as 60 participants in control group who are not suffering from any kind of dermatological illness.

Descriptive statistics will be calculated for psychological questionnaires, and t-tests will be used to test for the differences between groups, genders and age groups.

## **O-34**

### **HYPERHIDROSIS: HOW TO DIAGNOSE AND HOW TO TREAT IT?**

***Daniele Innocenzi***

Department of Dermatology and Plastic Surgery, University of Rome "La Sapienza", Rome, Italy

Hyperhidrosis is a chronic disorder of excessive eccrine sweating that mainly affects the axillae, the palms, the soles and the face. The first step in the evaluation of hyperhidrosis is to differentiate between primary (idiopathic) and secondary hyperhidrosis. The aetiology of idiopathic hyperhidrosis is poorly understood, but believed to be associated with over-stimulation via an autonomic pathway. Secondary hyperhidrosis is caused by an underlying condition and treatment involves the removal or control of this condition. The iodine-starch technique and the gravimetric measurement can be used to delineate the precise pattern and quantitative level of sweating. To evaluate the impact of hyperhidrosis on their lives, patients can complete the Dermatology Life Quality Index (DLQI) and the Hyperhidrosis Impact Questionnaire (HHIQ). There is a wide range of nonsurgical (topical and systemic) and surgical treatments available for patients with primary hyperhidrosis. These treatment modalities vary in their therapeutic efficacy, duration of effect and cost, as well as in the scientific evidence of their efficacy.

## **O-35**

### **RHYNOPHYMA - OUR EXPERIENCE WITH SURGICAL TREATMENT**

***Mirna Šitum, Lenka Oremović, Marija Buljan***

Department of Dermatology and Venereology, Sestre milosrdnice University Hospital, Zagreb, Croatia

Rhinophyma is an uncommon acquired disease which primarily affects male white population in the fifth to seventh decades of life, characterized by the progressive thickening of nasal skin which produces a disfiguring soft tissue hypertrophy of the nose. Severe cosmetic deformity caused by rhinophyma may distort the appearance of those affected

and patients may become psychosocially disabled. Rhinophyma can sometimes cause breathing difficulties, making the surgical treatment necessary. There is no general agreement on the ideal treatment of rhinophyma, therefore, different treatment modalities are used. Surgical methods include complete and incomplete excision. Methods of incomplete excision, which have been shown to give better cosmetic results, include electrosurgery, laser ablation, cryosurgery, dermabrasion, scalpel excision and others.

We present three male patients, at the average age of 60 years, who turned for medical help regarding significant rhinophyma. All three of the patients were treated with electrosection at the department for Dermatotomy at our clinic. A radiofrequency electro-surgical unit was used in the cut/coagulate mode to remove thin layers of hypertrophic nose tissue until the nose shape was re-created.

Preoperatively, potentiated topical anesthesia (2% lidocaine with adjusted volume of adrenaline) was applied, within sterile procedure and asepsis.

Intraoperatively, there was only one minor complication in terms of arterial bleeding where one suture needed to be placed.

Postoperatively, during the first three days abraded surfaces were treated with ph. saline coating which helped necrotic deposits and crust removal, followed by the application of hydrocoloidal coatings which stimulated wound reepithelization.

All patients showed very good cosmetic results. Cutaneous reepithelization was achieved two weeks after the surgery, erythema subsided within 4-8 weeks and, healing was completed within 8-10 weeks. None of our patients developed hypertrophic scarring nor hypopigmentation.

We conclude that electrosection is a quick and very efficient method of surgical treatment of rhinophyma, giving very acceptable cosmetic and functional results. Although living in the laser era, electrosurgical remodeling in cases of rhinophyma represents a good alternative.

## **O-36**

### **NAŠA PRVA ISKUSTVA U LIJEČENJU KRONIČNIH RANA V.A.C. TERAPIJOM**

***Antica Soldo-Belić, Klaudija Šebetić, Marija Buljan, Nada Rajačić***

Klinika za kožne i spolne bolesti, KB "Sestre milosrdnice", Zagreb

Od rujna 1994.g. u liječenje kroničnih i akutnih rana uvedena je V.A.C. terapija (Vacuum Assisted Closure therapy). Navedena tehnologija, koja se osniva na lokalnom negativnom tlaku, potpomaže cijeljenju rana, bez obzira na etiologiju.

Tijekom 2004. i 2005.g. liječili smo V.A.C. terapijom 10 bolesnika hospitaliziranih na našoj Klinici, od čega su tri bolesnika imala dijabetičke ulceracije, a 7 hipostazične ili posttrombotske ulkuse.

V.A.C. terapiju smo primjenjivali na uobičajeni način; prva dva dana kontinuirano sa 125 mmHg, zatim intermitentno- jedan do tri tjedna, uz mijenjanje spužvi i kontejnera po potrebi- svakodnevno ili svaki drugi ili treći dan.

Kod svih bolesnika zabilježeno je čišćenje ulceracija, nastanak svježih granulacija kod većine, te mjestimično rubna epitelizacija.

Kod dva bolesnika terapiju smo morali prekinuti zbog bolova, koji su inače opisani kao nuzpojava V.A.C. terapije, te kod jedne bolesnice zbog alergijske reakcije na foliju. Kod niti jednog bolesnika nismo zabilježili potpunu epitelizaciju.

V.A.C terapija zasigurno ima svoje mjesto u liječenju kroničnih rana, ali isključivo kod pomno odabranih bolesnika. Prema našim prvim iskustvima, navedena terapija prvenstveno je indicirana za "čišćenje" rana i odstranjivanje sekreta i vlažnih naslaga, te posljedično poticanje stvaranja granulacija kao preduvjeta za potencijalnu epitalizaciju.

## **O-37**

### **BOTANICALS AS TOPICAL THERAPY IN DERMATOLOGY**

*Ines Sjerobabski Masnec*

Department of Dermatology and Venereology, Sestre milosrdnice University Hospital, Zagreb, Croatia

Botanicals represent the earliest medications used by man and they will also be the source of the newest medications. Today, botanicals form the largest category of cosmeceutical additives found in the marketplace. Over 60 different botanicals are integral components of cosmeceuticals products.

The botanicals of known and potential dermatologic significance are divided into therapeutic categories and specific indications. Generally, botanicals can be characterized as antioxidants, anti-inflammatories, and skin-soothing agents. Many botanicals are effective in several different categories. Also, the amount of active substance in the botanical extract is important in determines efficacy.

In our lecture we shall give a review of some of the formulation issues and important considerations regarding the use of botanicals in skin care products.

In clinical investigations some botanicals showed promising results, although their true effects are still unknown. Further studies should be performed to assess clinical benefit.

Adverse effects of botanicals in dermatology are common. The most common is allergic contact dermatitis and photosensitization.

The use of alternative medical therapy including botanicals is increasing worldwide as well as in our country, thus dermatologists should become familiar with this issue to be able to provide optimal medical care in everyday practice.

## **O-38**

### **ELASTIC BANDAGE - COMPLEMENTARY METHOD TREATMENT OF VENOSE INSUFFICIENCY CIRCULATION**

***Peter Brinar, Željko Đurašević<sup>1</sup>, Dubravko Hlevnjak<sup>1</sup>***

Bauerfeind; <sup>1</sup>Department of Surgery, Clinical Hospital Merkur, <sup>2</sup>Department of Internal medicine, Dubrava University Hospital, Zagreb, Croatia

Venose circulation insufficiency appears as acute or chronic disease, often for life. By epidemiology statistics sick gets 10-15 % population which presents greate socially, economic problem. Dependig of stadium of disease patients have decreased work and life ability. Women gets sicker 4 times more, although in older age this difference decreased. Sicknes and its consequence or complication are present in over 60 % patients older thjan 60 years. Venose circulation insufficiency can be congenital or mostly acquired. Treatment with elastic sompressive therapy (bandage) as complementary method is vail-able, effective and simple method of treatment.

Authors in their article shows epidemiology, causes, clinical manifestations and apply elastic compressive therapy as preventive ant therapeutic method od treatment with spe-ial view on the quality of the elastic sock.

## **O-39**

### **AUTOIMMUNE BLISTERING DISEASES - YESTERDAY, TODAY, TOMORROW**

***Branka Marinović, Ines Lakoš Jukić***

University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

Autoimmune blistering diseases are group of diseases which include many different der-matoses. In past, when clinical diagnosis was the only diagnostic tool, all of diseases with blister as main skin simptom were called pemphigus. Lever in 1953 made first dif-ferentiation between pemphigus and pemphigoid group of diseases, based on level of separation in the skin. A few years later he also separated pemphigus vulgaris from pemphigus foliaceus. Introducing immunofluorescence techniques in 1979 in diagnostic algorithm of blistering diseases led to a great progress in understanding of the biology of these disease, to more accurate classification and diagnosis. Immunofluorescence stud-ies are mainstay of diagnosis of autoimmune bullous diseases today. Other specialized investigations include western immunoblotting, ELISA and etc. Expansion of molecular biology revealed a number of target antigens with related genes. Future studies and development of new diagnostic procedures will provide a better understanding of immune mechanisms involved in the pathogenesis of these diseases with attempts to gain a more specific therapy based on specific modulations of immune system.

## **O-40**

### **LIFE-THREATENING BLISTERING SKIN ERUPTIONS**

***Ronni Wolf, Batya Davidovici, Edith Orion***

Kaplan Medical Center, Rechovot, Israel

Adverse cutaneous reactions to drugs are frequent, affecting ca. 3% of all hospitalized patients. Fortunately, only about 2% of adverse cutaneous reactions are severe and very few fatal.

The spectrum of severe cutaneous drug reactions includes Stevens-Johnson syndrome, toxic epidermal necrolysis, hypersensitivity syndrome or DRESS, and others.

These conditions will be discussed, with emphasize on classification, diagnosing and treatment.

## **O-41**

### **DRUG INDUCED PEMPHIGUS**

***Sarah Brenner***

Department of Dermatology, Tel Aviv Sourasky Medical Center, Tel Aviv, Israel

Pemphigus is an autoimmune bullous disease with multifactorial triggers as is summarized in our acronym PEMPHIGUS where the PH stands for Pharmacology or Medications such as Thiol and Phenol.

Since 1969 when Degos first described Penicillamine as a cause for Pemphigus many other medications have been described as triggers for the disease. In many cases the elimination of the drug will end or alleviate the disease. However, in some cases more than one drug appears to be responsible for the condition. We have been looking for a laboratory system to prove the connection between the various drugs and the disease and have established a system showing the relation between  $\gamma$  - Interferon excretion from the lymphocytes of the patient and a specific drug. A series of cases will be presented.

## **O-42**

### **“EPITOPE SPREADING” PHENOMENON IN AUTOIMMUNE BULLUOS DISEASES**

***Ines Lakoš Jukić, Branka Marinović***

University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

“Epitope spreading” phenomenon can be defined as a development of immune, specific autoreactive lymphocyte T or B response to endogenous epitopes secondary to the release of self antigens during a chronic autoimmune or inflammatory disease. That means, in essence, that a primary autoimmune or inflammatory process may cause tissue damage in such a manner that certain protein components that are immunologically “hidden” from the immune system become “revealed” and evoke a secondary autoim-

mune response. It can occur within the same protein (intramolecular) and/or to other proteins within the same tissue or protein complex (intermolecular).

We describe some interesting clinical cases of autoimmune bullous diseases in whom this interesting phenomenon might have occurred.

## **O-43**

### **DIAGNOSTIC SYSTEM OF VARIOUS AUTOIMMUNE BULLOUS DISEASES**

*Takashi Hashimoto*

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

Various immunofluorescence and immunoblotting tests are now available for the diagnosis in various autoimmune bullous diseases. The immunofluorescence using normal human skin sections are still used in all diseases, and immunofluorescence using 1M NaCl split skin sections is useful for the diagnosis of various diseases with anti-basement membrane zone antibodies. Immunofluorescence using rat bladder sections are useful for the diagnosis of paraneoplastic pemphigus. Immunoblotting using human epidermal extracts are useful for the diagnosis of various types of pemphigus and bullous pemphigoid. Immunoblotting using human dermal extract are used for the diagnosis of epidermolysis bullosa acquisita and anti-p200 pemphigoid. Immunoblotting using concentrated supernatant of HaCaT cell culture and purified laminin 5 are useful in the diagnosis of lamina lucida type of linear IgA bullous dermatosis and anti-laminin 5 mucous membrane pemphigoid, respectively. In addition, immunoblot analyses using recombinant proteins of various domains of BP180 are used to determine the antigenic sites for various diseases. Immunoblot analyses using various domains of BP230 and type VII collagen are also available. Now, ELISAs for both desmoglein 1 and desmoglein 3 are available for the diagnosis of various types of pemphigus, and these ELISAs have been shown to be highly sensitive and specific. In addition, ELISAs for both BP180 and BP230 have recently developed, and these ELISAs are also shown to be useful for the diagnosis of bullous pemphigoid. Finally, transfection method of desmocollin cDNAs into COS-7 cells is used for the diagnosis of subcorneal pustular dermatosis type of IgA pemphigus.

## **O-44**

### **EPIDEMIOLOGY OF ACQUIRED BULLOUS DISEASES IN EASTERN CROATIA: A TWENTY YEARS PERIOD RETROSPECTIVE STUDY (1986-2005)**

*Vladimira Barišić-Druško, Nela Šustić, Ivana Ručević, Melita Vukšić*

Department of Dermatovenerology, Osijek Clinical Hospital, Osijek, Croatia

Objective. The aim of our study were: 1) to establish the incidence of acquired bullous diseases (BD) in Eastern Croatia (Osijek) during twenty years period; 2) to estimate influence of prolonged traumatic War's circumstances on the incidence and prevalence of BD; 3) familial distribution of BD.

Patients and methods. The authors collected and analyzed a history of all hospitalized patients with BD, from 1986 till 2005 year, with regard to personal data, history of the disease including age, gender and onset of symptoms, clinical diagnosis, laboratory tests and familial distribution of BD.

Results. During 20-years period 104 newly diagnosed patients with bullous diseases represented 0.99% of 10443 patients treated in Department of Dermatovenerology, Clinical Hospital Osijek. The prevalence of BD is approximately about 1% per year, but during the period 1992-1994, all our patients were exposed to prolonged stressful war events, therefore we extended emotional stress could trigger onset of disease, so that the prevalence was much more than 1% per year. Among our patients with BD the most common clinical variant is pemphigus vulgaris, occurring frequently in the middle-age population. Females were more affected than males. According to family history, the authors did not find any cases of BD in patients' families.

## **O-45**

### **CLINICAL PRESENTATION AND TREATMENT OF PEMPHIGUS - OUR 16 YEARS EXPERIENCE**

***Željko Mijušković, Radoš Zečević, Miloš Pavlović***

Department of Dermatology and Venereology, Military Medical Academy, Belgrade, Serbia and Montenegro

The aim of this study was to assess the age of onset of pemphigus, initial presentation, sex distribution, subtypes of pemphigus and treatment options.

Methods: Medical records of 126 pts admitted to the Department of Dermatology, MMA between 1990-2004 were reviewed. All pts with pemphigus confirmed on the basis of clinical appearance, histological, direct and indirect immunofluorescence studies.

Results: Of the 140 pts, 65 (52.14%) were males, and 61 (47.86%) females. In the rural areas lived 88 (62.86%), whereas 45 (37.14%) pts lived in urban centers. The disease started in 4 (2.86%) pts in the second decade, in 12 (8.57%) pts in the third, in 20 (14.29%) pts in the fourth, in 39 (27.86%) pts in the fifth, and in 65 (46.42%) pts at the age over 51. Initial manifestations were on the skin in 65 (46.43%) pts, and on the oral mucosa in 75 (53.57%) pts. Distribution of the first eruption was as follows: trunk, 47 (72.3%) pts; head and neck, 14 (21.54%) pts, and extremities, 4 (6.15%) pts. Direct immunofluorescence revealed epidermal deposits of IgG and C3 in 34 (26.15%) pts and only IgG in 96 (73.85%) pts. Pemphigus subtypes were: p. vulgaris in 110 (78.57%) pts, p. foliaceus in 23 (16.42%) pts, p. herpetiformis in 6 (4.29%) pts, and drug-induced pemphigus in 1 patient. The most frequently prescribed treatment (in 59 or 42.14%) were corticosteroids (CS) (prednisone or methylprednisolone) in a dosage of 0.5-1 mg/kg/d. The combination of CS, 0.5-1 mg/kg/d and azathioprine, 100-150 mg/d was used in 14 (10%) pts, and CS and cyclophosphamide, 50-100 mg/d in 25 (17.86%) pts. Forty pts were treated with 1 to 8 pulse doses of: a) only methylprednisolone, 10-15 mg/kg/d I.V., for 3 consecutive days (13 pts); b) methylprednisolone with 0.5-0.75 mg/m<sup>2</sup> of cyclophosphamide I.V. (18 pts) and c) only 0.5-0.75 mg/m<sup>2</sup> of cyclophosphamide I.V. once per month (9 pts). Two patients (2.10%) were treated with dapsone alone or in a combination with CS. The

most common side effect related to the use of CS was: Cushingoid appearances, diabetes mellitus in, osteoporosis, cataract, sepsis, foot gangrena, hirsutism, and arterial hypertension. Seven patients died, all of whom had pemphigus vulgaris.

## **O-46**

### **NOVELTIES IN THERAPY OF BLISTERING DISEASES**

***Michael Meurer***

Department of Dermatology, University Hospital Carl Gustav Carus,  
Technische Universität Dresden, Germany

Rituximab is a monoclonal antibody directed against the CD20 surface antigen present on B is a lymphocytes; eradication of auto-reactiv B cell clones is the rational for its application in patients with pemphigus vulgaris (PV). Rituximab is administered intravenously once weekly for 4 weeks; B-cell depletion persists for about 6 - 12 months. In patients with PV, juvenile pemphigus and even in patients with paraneoplastic pemphigus (PNP) rituximab has been successfully employed as a single course treatment which - in some patients - induced long-term remission. In patients with chronic refractory PV rituximab or more commonly administered immunosuppressive drugs such as cyclophosphamide, mycophenolate mofetil azathioprine or methotrexate can be combined with non-pharmacological adjunct treatment modalities: these include protein A immunoabsorption, plasmapheresis and intravenous immunoglobulins (IVIG). In many patients with PV, but also with other severe autoimmune blistering diseases such as cicatricial pemphigoid or inflammatory epidermolysis bullosa acquisita (EBA), the IVIG therapy, with a defined protocol, has been reported to be beneficial. New experimental data from our department indicate that IVIG results in a marked inhibition of cytokine release from inflammatory dendritic cells; this finding may explain the pronounced and sudden anti-inflammatory action of IVIG in PV and other autoimmune blistering diseases.

## **O-47**

### **NONDERMATOPHYTE ONYCHOMYCOSIS - DIAGNOSIS AND TREATMENT**

***Raza Aly***

University of California, San Francisco, San Francisco, CA, USA

The nondermatophyte nail infection may be primary following trauma or as secondary in an already infected nail by a dermatophyte. Onychomycosis caused by molds is becoming common worldwide and has been reported from many countries. Major nondermatophytes that are responsible for onychomycosis are: *Aspergillus sp*, *Scopulariopsis*, *Fusarium sp*, *Onychocola canadensis*, and *Scytalidium sp*. The clinical types may mimic infections associated with dermatophytes except for the possible presence of periungual inflammation. KOH and culture are the most important methods to delineate molds from dermatophyte infections. Treatment with systemic antifungals is effective when infection is caused by *Aspergillus sp*s. For others, both systemic antifungals and topical treatment may be required.

**ONYCHOMYCOSIS - A NEW EMERGING INFECTIOUS DISEASE IN CHILDHOOD POPULATION - REPORT ON TREATMENT EXPERIENCE WITH TERBINAFINE AND ITRACONAZOLE**

***Gabriele Ginter-Hanselmayer, Wolfgang Weger***

Department of Dermatology, Medical University Graz, Austria

In the past onychomycosis in children was estimated as an uncommon disease compared to the frequency of fungal nail infection in adults. Regarding epidemiologic data from the literature its prevalence in childhood is estimated to be 0-2.6 %, respectively. Since the last years a remarkable/striking increase of that condition can be observed in childhood population.

In childhood onychomycosis there are different similarities with adults according the clinical picture and the causative pathogen. As in adults childhood onychomycosis is often accompanied by tinea pedis and a family history of onychomycosis. The clinical presentations of fungal nailplate infection in children reveals the same pattern as in adults with distal and lateral subungual onychomycosis (DLSO) being the most common type. The etiologic agent most commonly isolated is *Trichophyton rubrum*. Nevertheless oral anti-fungal treatment is required to achieve cure, especially with forms of moderate to severe onychomycosis with nail matrix involvement.

Unlike in adults there is only little experience with the use of the three new oral antifungals- itraconazole, terbinafine, and fluconazole in the treatment of onychomycosis in childhood population as these drugs are not specifically approved in this age group so far. Meanwhile we can report on our experience with treatment of childhood onychomycosis in 36 children aged 4 to 17 years. In all children toenails were affected mainly presenting the DLSO type. 19 children received itraconazole and 17 terbinafine therapy in a continuous treatment and weight depending dosage schedule as recommended. In all but three cure could be achieved, one girl relapsed, two children could not be followed up because drop out. Only in one child with itraconazole treatment a clinical side effect (fatigue) was reported.

Conclusion: To our experience with these new oral antifungals in childhood onychomycosis cure seems to be achieved in a shorter time than in adults, in addition severe dystrophic nail changes cleared in all. All cases were followed up and no recurrences but one were detected.

Furthermore in accordance to the literature and to our impression these drugs appear to be safe and effective with the advantage of short duration of therapy for better compliance.

## **O-49**

### **EPIDEMIOLOGY OF ONYCHOMYCOSES IN RIJEKA AREA IN PERIOD 2000-2004**

**Larisa Prpić Massari, Marija Kaštelan, Edita Simonić, Ines Brajac, Liliana Stojnić Soša, Teo Manestar, Nirvana Skočić, Adalbert Stašić**

Department of Dermatovenerology, University Hospital Center Rijeka, Rijeka, Croatia

Onychomycoses occur throughout the world but there are regional differences in incidence. Sociocultural and occupational factors play an important part in the increase and spread of organisms. The aim of our study was to analyze the prevalence of fungal nail infections in population of Rijeka area during the past five years.

A total of 2450 patients with clinically suspected onychomycoses referred to Dermatovenerology Clinic, Clinical Hospital Center Rijeka in period from 2000 till 2004 were examined. During this period onychomycoses were recorded in 1335 cases; 853 (63,90%) cases of *Candida albicans* infection, and 249 (18,65%) cases of dermatophytoses. The nail infections due to yeasts were recorded in 233 cases (17,45%). *Trichophyton mentagrophytes* was predominate dermatophyte (17,15%), followed by *T. violaceum* (1,27%), while *T. verrucosum* was detected only sporadically. During five year period we observed an increase in incidence of *C. albicans* as well as *T. mentagrophytes* and *T. violaceum* fungal infection

## **O-50**

### **MICROSPORUM CANIS INFECTION IN ZADAR AREA - 20 YEARS OF EXPERIENCE**

**Mile Gverić<sup>1</sup>, Jadranka Perina<sup>2</sup>, Klara Kaćinarić, Ivana Patrk<sup>2</sup>, Željka Juko Kasap<sup>2</sup>, Ana Gverić Grginić<sup>3</sup>**

<sup>1</sup> Privatna dermatovenerološka ordinacija; <sup>2</sup> Odjel za dermatologiju i venerologiju Opće bolnice Zadar, Zadar; <sup>3</sup> Zavod za javno zdravstvo Grada Zagreba, zagreb

Abstract not received

## **O-51**

### **THE DIAGNOSIS OF CUTANEOUS CRYPTOCOCCOSIS - A CASE REPORT**

**Marija V'ličkova-Laškoska, Agron Starova, Suzana Kamberova, Nina Caca-Biljanovska, Vesna Janevska<sup>1</sup>**

Department of Dermatology; <sup>1</sup> Department of Pathology, University Hospital Skopje, Skopje, Republic of Macedonia

Objective/Aim. Primary cutaneous cryptococcosis without systemic involvement is rare. The skin is affected usually in the context of disseminated cryptococcal infection. The aim of the report is to draw attention to the diagnostic procedures in cutaneous cryptococcosis.

Material/Results. A 51-year-old HIV-negative male with typical features for cutaneous cryptococcosis was investigated in order to confirm the diagnosis. Clinical appearance: tumor-like plaque with central ulceration and many small satellite papulonodular lesions resembling those of molluscum contagiosum. Several similar lesions in the axillae, neck and face. Histological examination using haematoxylin/eosin staining showed two forms of tissue reaction in the same skin specimen, i.e. granulomatous and gelatinous, with numerous phagocytosed encapsulated spores within the giant cells.

Periodic-acid-Schiff revealed numerous organisms - yeast cells within cystic formations (gelatinous form), stained positively red; Alcian blue stained the yeast cells typical blue (the pathogen capsule dark blue) seen in cystic formations.

On Sabouraud agar isolated culture (shiny, light-yellow colonies), was identified as *C. laurentii* species using automated VITEK technology (biochemical typing).

Routine biochemical and haematological analyses were normal.

T-helper/T-suppressor ratio was normal.

Serological markers for hepatitis A,B and C, Cytomegalovirus, Epstein-Barr and HIV viruses all were negative.

Discussion/Conclusion. An early and accurate diagnosis using all available diagnostic procedures in cutaneous cryptococcal lesions is very important because of the treatment and prognosis. The progression of the infection affecting central nervous system structures has an unpredictable and usually fatal outcome. Treatment with systemic antifungals (itraconazole, fluconazole, amphotericin B with/without flucytosine) in an appropriate dosage is of vital significance.

## **O-52**

### **TINEA CAPITIS IN REPUBLIC OF MACEDONIA**

***Agron Starova, Marija V'ičkova-Laškoska, Nina Caca-Biljanovska, Suzana Kamberova***

Department of Dermatovenerology, Univerity Hospital Skopje, Skopje, Macedonia.

Background: Tinea capitis is a dermatophyte infection of the scalp with diverse clinical manifestations. Species from the genera *Trichophyton* and *Microsporum* are causative agents for tinea capitis. Objective: Determine the prevalence and the most frequently isolated dermatophytic species as well as point out some clinico-etiological correlation in patients with tinea capitis in R. of Macedonia. Patients and methods: The investigation was carried out in the Mycology Laboratory of the Department of Dermatology in Skopje University School of Medicine. Over a time period of three years (January 1998 - December 2000) tinea capitis was diagnosed by means of current diagnostic methods for detection and identification (native microscopy, culture and Wood's light), in 212 patients. Results: The patients having tinea capitis represented 21% of all patients having dermatophytosis. The superficial, non-inflammatory form of tinea capitis is the most often form (75.36% of all cases). Most frequently isolated dermatophytic species was *Microsporum canis* (59.44% of all patients with tinea capitis), then *Trichophyton mentagrophytes* var. *mentagrophytes* (15.57%), *Trichophyton rubrum* (12.26%), *Trichophyton*

*verrucosum* (4.72%), *Trichophyton violaceum* (4.24%), *Microsporum gypseum* (3.30%) and *Trichophyton schoenleinii* (0.47%); Conclusion: *Microsporum canis* is the predominant causative agents and the superficial, non-inflammatory form of tinea capitis is the most often form in R. of Macedonia.

## **O-53**

### **NON-HODGKIN LYMPHOMA OF THE SKIN AT ZAGREB UNIVERSITY DEPARTMENT OF DERMATOLOGY AND VENEREOLOGY 2000-2005**

***Aida Pašić, Danijela Ledić-Drvar, Ivan Dobrić, Ivo Radman<sup>1</sup>, Romana Čević, Krešimir Kostović, Jaka Radoš, Ivana Manola***

University Department of Dermatology and Venereology, <sup>1</sup> Department of Hematology, University Department of Medicine, Zagreb University Hospital Center, Zagreb, Croatia

Various T-cell and B-cell tumors can involve the skin, primarily or secondarily. The term primary cutaneous lymphoma addresses cutaneous T-cell lymphomas and B-cell lymphomas, primarily presented in the skin, with no evidence of extracutaneous involvement at the time of diagnosis.

Aim of the study: Retrospective analysis of patients with cutaneous manifestations of lymphoma during the 2000-2005 period.

Patients and methods: The study included 51 patients, 26 men aged 39-77 (median 62) years and 25 women aged 33-91 (median 64) years. Mycosis fungoides was diagnosed in 41 (80.39%) patients. According to the stage of disease at the time of diagnosis, it was undetermined in 2 patients, whereas stage IA was present in 12, stage IB in 8, stage IIA in 5, stage IIB in 5, stage III in 2, stage IV in 1, and stage IVA in 6 patients. Staging of the disease was based on the results of examinations including histopathology, immunohistochemistry, abdominal ultrasound, chest radiogram, sternal puncture, serum LDH, serum copper, and computerized tomography of the chest and abdomen. Other forms of non-Hodgkin lymphoma (NHL) with cutaneous manifestations were diagnosed in 10 (19.61%) patients and were classified as follows: cutaneous T-cell lymphoma other than mycosis fungoides in 5, NHL of B-phenotype in 2, diffuse large B-cell lymphoma of the leg in 1, and small cell B NHL in 2 patients. The patients with early-stage mycosis fungoides (stages IA, IB and IIA) were treated with photochemotherapy (PUVA). Most patients also received an oral retinoid (acitretin; Re-PUVA). Superficial radiotherapy was used in patients with tumorous lesions. Patients with advanced-stage disease and those with other forms of lymphoma were transferred to Department of Hematology, where they received radio- and polychemotherapy.

Results: In mycosis fungoides patients administered dermatologic therapy, complete remission was achieved in 8 (20%) and partial remission in 33 (80%) patients. The latter were subsequently under continuous supervision and repeated cycles of photochemotherapy, Re-PUVA and superficial radiotherapy were administered as needed.

Conclusion: Early diagnosis of NHL of the skin is an important goal for dermatologists. Non-aggressive dermatologic therapy (PUVA, Re-PUVA, superficial radiotherapy) is available for patients with early-stage disease. Team approach is essential in the diagnosis and treatment of primary NHL of the skin, and should include dermatologists, hematologists and oncologists.

**DO WE KNOW ENOUGH ABOUT PHOTOPROTECTION AND TUMOURS ALTERATION OF THE SKIN: FIELD RESEARCH ON THE PENINSULA OF PELJEŠAC AND ON THE ISLAND OF KORČULA**

**Ana Bakija-Konsuo**

Poliklinika CUTIS, Dubrovnik, Croatia

After an increasing number of skin cancer cases and some skin cancer deaths among young people in the Dubrovacko-neretvanska County had been noted, a field research in the area of the peninsula of Peljesac and the island of Korcula in cooperation with the League Against Cancer of Peljesac and Korcula was done in the period between November 2004 and June 2005. Dermatological examinations were performed 20 times in the town of Korcula, Vela Luka, Blato, Smokvica, Trpanj and Orebic.

Research tasks were detection of the presence of skin cancer in the area and advising those diagnosed ill about further medical procedure, defining the Fitzpatrick skin type classification, collecting information on sun-protection behaviours and attitudes and usage of sun protective factor products, educating and informing local population as well as local physicians in the area with the investigation results.

Research methods were the previous local media campaign, displaying informative posters in the local physicians' waiting rooms, selecting potentially ill, dermatological examining and filling in questioners both by patients and those who came by their own will urged by the media campaign.

Results: according to the latest census in 2001 the examined area counted 21764 people of whom 604 or 2.77% of the total population (67% female and 33% male) were examined. All age groups were equally represented. According to the Fitzpatrick skin type classification most of the examined persons had skin type III while only 33 examined persons had skin type IV. It was found out that 62% of the questioned did not use SPF products, 21% used them periodically, while 17% used them regularly. 3 new cases of malignant melanoma, 22 cases of basal cell carcinoma, 7 cases of squamous cell carcinoma and 81 persons with atypical mole were diagnosed. Incidence statistics are not accurate since not all of the skin cancer cases are being reported and therefore reporting of malignant is obligatory by law.

It can be concluded that in regard to over exposure to sunlight, latitude and occupations of the people in the area better prevention education of the population is required. Early detection and diagnosis are of the greatest importance and further education of the medical staff is needed.

## **O-55**

### **QUALITY OF LIFE, PSYCHOLOGICAL STATUS AND ILLNESS PERCEPTIONS IN PATIENTS WITH MALIGNANT MELANOMA**

*Maja Vurnek, Marija Buljan, Lena Kotrulja, Mirna Šitum*

Department of Dermatology and Venereology, Sestre milosrdnice University Hospital, Zagreb, Croatia

Melanoma patients are subject to different degrees of psychosocial distress depending on various factors. The way patients see and understand their illness can have a significant influence on their psychosocial status and quality of life. Since most of the patients don't talk openly about their distress, worries and problems, the identification of patients in need of psychosocial intervention is necessary. Psychosocial interventions can result in significant benefit in terms of psychosocial status and long-term survival in patients with malignant melanoma.

Prospective clinical trial is in course at the Clinic for dermatovenereology, Clinical Hospital "Sestre Milosrdnice", in which psychological status and illness perceptions are being assessed. Standardized psychological questionnaires are being used in the trial: Beck Depression Inventory (BDI), State-Trait Anxiety Inventory (STAI), Coping Orientation to Problems Experienced (COPE), Quality of Life in Oncology (QLQ-C30) and Illness Perceptions Questionnaire (brief-IPQ). Descriptive statistics will be calculated for all questionnaires, and t-tests will be used to test for the differences between genders, age groups and patients with different illness severity. Correlations between Illness Perceptions Questionnaire and all the other measures of psychosocial status will be calculated. The results from melanoma patients will be compared to the results of other dermatological patients and with the normative data for healthy population. Depending on the results of this trial, psychosocial interventions will be organized at the Clinic.

## **O-56**

### **RESULTS OF THE DETERMINATION OF SERUM MARKERS IN PATIENTS WITH MALIGNANT MELANOMA**

*Liborija Lugović, Mirna Šitum, Marija Buljan, Sanja Poduje, Klaudija Šebetić*

Department of Dermatology and Venereology, Sestre milosrdnice University Hospital, Zagreb, Croatia

Although there is no routine procedure for determination of serum tumor markers for the guidelines of patients with malignant melanoma (MM), some markers have a significant role. Besides lactate dehydrogenase (LDH) which is a leading blood parameter in patients with melanoma metastases, there are two highly reliable useful serum proteins in the follow-up of patients with MM: protein S-100B, a member of the S100 protein family, and melanoma-inhibiting activity (MIA), 11 kd soluble protein. It has been indicated that levels of S100 as well as MIA in peripheral blood, correlate with melanoma progression. Thus protein S-100beta and MIA demonstrated a higher sensitivity, specificity, and diagnostic accuracy than other parameters in the diagnosis of newly occurring

melanoma metastasis. Determination of serum concentration of tyrosinase may also be important markers in patients with MM. The obtained data point out few blood markers as promising prognostic parameters in the early detection of MM progression or in the prediction of therapy outcome. In this study, we show our results of determination of S100 protein, LDH, MIA and tyrosinase in the serum of patients with MM.

## **O-57**

### **THE ROLE OF TUMOR MARKERS IN PREDICTING THE COURSE OF MALIGNANT MELANOMA**

***Sanja Poduje, Liborija Lugović, Klaudija Šebetić, Mirna Šitum***

Department of Dermatology and Venereology, Sestre Milosrdnice University Hospital, Zagreb, Croatia

Tumor markers for malignant melanoma are currently assessed for the possible ability to discriminate progressive from no progressive disease.

Some of these markers are in standard procedure of the follow-up in patients with malignant melanoma, while some of them are still under the investigation.

From the group of standard markers lactate dehydrogenase level is the most relevant overall parameter.

S100- beta protein and melanoma-inhibitory activity (MIA) could serve as a valid marker for micro- and/or macro metastasis. MIA has reported to have effects on cell growth and adhesion and it may play role in melanoma metastasis.

There are no available tumor markers for the early stage of melanoma but two new markers are potentially useful - SPARC secreted protein acidic and rich in cystein and its combination with glypican-3 (GPC3).

## **O-58**

### **DERMATOSCOPY- DIFFERENTIAL DIGANOSIS OF PIGMENTED AND NONPIGMENTED SKIN LESIONS**

***Lena Kotrulja***

Department of Dermatology and Venereology, Sestre milosrdnice University Hospital, Zagreb, Croatia

One of the newest strategies to enhance diagnosis of pigmented lesions, variously called epiluminescence microscopy (ELM), dermatoscopy, or dermoscopy, is a non-invasive imaging technique that employs oil immersion to visualize subsurface skin structures.

Studies have shown that applying dermoscopy in daily practice can greatly improve accuracy in differential diagnosis, facilitating early detection of melanomas. Also, it can often reassure a patient that a lesion is benign, without the need for excision.

Dermoscopy improves the diagnostic accuracy in the clinical evaluation of pigmented skin lesions, but it is also useful for the assessment of vascular structures that are not visible to the naked eye. As a consequence, dermoscopy has been employed more and

more for the differential diagnosis of nonpigmented skin disorders, including tumors but also inflammatory and infectious diseases. This article provides a review of the dermoscopic features seen in various pigmented and nonpigmented tumoral and nontumoral skin lesions.

## **O-59**

### **TELEDERMATOLOGY IN CROATIA - OUR EXPERIENCE**

***Leo Čabrijan<sup>1</sup>, Ljubiša Postolović<sup>2</sup>, Anamarija Margan<sup>3</sup>,***

<sup>1</sup> Department of Dermatovenereology, Clinical Hospital Center Rijeka, Rijeka; <sup>2</sup> General practice, Veli Lošinj; <sup>3</sup> Internal practice, Cres, Croatia

According to teledermatology in other countries like Austria, where, also our clinic participate from year 2000., we also wanted to have something similar in cooperation with colleagues from North Adriatic islands like Lošinj, Cres, Krk etc. The idea was initiated by our colleagues from island Cres and Lošinj, because the problem they have with their patients, about consultation of diagnosis and therapy, with internal, dermatovenerological diseases, etc.

We used a simple way of communication by e-mail, with Microsoft Outlook program. The pictures were taken by digital cameras and with short anamnesis sent to us.

Here are some examples, like erythema multiforme, Ixodes tick, pityriasis versicolor versus atrophoderma of Pierini and Pasini.

Some of the cases we solved with our consultations, we suggested, in few examples, that patient comes to our department and makes some other procedure for diagnosis and cure.

In the future, this way of communication is easier, cheaper, and more comfortable for patients and their doctors so we have recommended it to other regions in our country where special medical care is impossible or very rare.

## **O-60**

### **ZNAČENJE PLASTIČNE KIRURGIJE LICA U DERMATOLOGIJI**

***Vedran Uglešić***

Odjel za plastičnu i rekonstruktivnu kirurgiju glave i vrata, Klinika za kirurgiju lica, čeljusti i usta, KB "Dubrava", Zagreb

Rad se bavi osnovama plastične kirurgije koje trebaju poznavati svi koji se bave kirurgijom na licu. Opisano kako i kada se radi plan rekonstrukcije i koji su njegovi dijelovi. Na primjerima su prikazani principi trodimenzionalnog shvaćanja defekta, zdrave strane kao modela za rekonstrukciju, principa skrivanja ožiljka, čuvanja davajuće regije, važnosti pristupa, rekonstrukcije defekta istim ili sličnim tkivom i principa rekonstrukcije estetskih jedinica.

## **O-61**

### **REKONSTRUKCIJA DEFEKATA NAKON RESEKCIJE MALIGNIH TUMORA KOŽE GLAVE I VRATA**

***Aleksandar Milenović, Mihajlo Virag, Vedran Uglešić, Predrag Knežević, Ines Lakoš Jukić***

Klinika za kirurgiju lica, čeljusti i usta, KB "Dubrava"; Klinika za kožne i spolne bolesti, Klinički bolnički centar i Medicinski fakultet Sveučilišta u Zagrebu, Zagreb

Defekti nastali nakon resekcije malignih tumora glave i vrata vrlo često svojim opsegom zahtijevaju složene oblike rekonstrukcije. Cilj nam je u ovoj prezentaciji pokazati način rekonstrukcije takvih defekata lokalnim, regionalnim i mikrovaskularnim režnjevima. Lokalnim režnjevima zatvaramo manje defekte. Koristimo rotacijske, transpozicijske ili advancement režnjeve iz neposredne blizine defekta. Oni se najčešće rade u lokalnoj anesteziji i ne zahtijevaju hospitalizaciju. U slučaju većih kožnih defekata indicirana je primjena regionalnih režnjeva (pektoralis major režanj, deltopektoralni režanj, čeoni režanj). U slučaju defekata koji osim veće površine kože obuhvaćaju i druge strukture kao što su mišići i kost, neophodna je primjena mikrovaskularnih režnjeva. U prikazu će biti opisana primjena podlaktičnog režnja, latisimus dorsi režnja i drugih primjenjenih za rekonstrukciju defekata nakon resekcije kožnih tumora.

## **O-62**

### **NEVOID BASAL CELL CARCINOMA SYNDROME - ONCOGENIC PHASE**

***Naima Mutevelić Arslanagić, Rusmir Arslanagić***

Department of Dermatology and Venereology, Sarajevo Clinical Center, Sarajevo, Bosnia and Herzegovina

Nevoid basal cell carcinoma syndrome is rare autosomal dominant disorders. The syndrome is characterized by extensive phenotypic manifestations because expressivity of gene is altered. The two prominent features of the syndrome are: 1. predisposition to basal cell carcinoma and tumors of other different organs, and 2. development defects manifested by congenital abnormalities of different organs and structures. Recently, a gene causing syndrome was identified and named PTCH gene. PTCH is tumor suppressor gene for basal cell carcinoma and meduloblastoma. PTCH gene is only known tumor suppressor gene for basal cell carcinoma and meduloblastoma. PTCH gene is only known tumor suppressor gene whose mutations contribute to tumor development and to a wide variety of malformations. A patient, 49 year old woman, with basal cell naevus syndrome, in oncogenic phase of disorders, is reported, with very extensive and very destructive, multiple basal cell carcinoma (over 50 and ranging in size from 1 cm to 12 cm). Most often carcinomas involved face, back and chest, but also extremities. Palmar and plantar pits are also present. Alae nasi and right side of nose is totally destructed, as was lower right eyelid and partially lower left eyelid. There are very extensive, exulcerating basal cell carcinomas on right side of face, right side of chest and back and also on the skin left maleolar region. Besides these skin changes, skeletal changes were very prominent feature of the patient, especially deformities of the tho-

rax with kyphoscoliosis and very prominent gibbus, pectus carinatum and prognatism of the mandibula. Also, there were some other anomalies: the calcification of falx cerebelli and maxillary cysts. Following therapy was administered: cryotherapy, kauterotherapy, surgeon excision, RTG therapy and local cytostatic therapy. Therapy with retinoid was discontinued after 20 days because of multiple adverse effects.

## **O-63**

### **NAA ASSAYS: DO WE NEED THEM FOR CHLAMYDIAL AND GONOCOCCAL DIAGNOSIS?**

**Angelika Stary**

Outpatients Centre for STI diagnosis, Vienna, Austria

The most recent and important advantage in the field of diagnosis of chlamydial and gonococcal infections is the development of nucleic acid amplification techniques (NAATs), which enable the detection of a low number of organisms in different specimen types in men and women with a high sensitivity and specificity. The number of NAATs, which are FDA approved for both, chlamydial and gonococcal diagnosis, has increased during the last years. In addition to DNA amplification by PCR (COBAS Amplicor) and by strand displacement amplification (ProbeTec), the amplification of chlamydial and gonococcal RNA is used in the highly sensitive and specific Transcript Mediated Amplification assay (TMA). The Gen-Probe APTIMA Combo 2 Assay is a second generation NAAT that utilizes target capture, transcription mediated amplification of RNA and dual kinetic assay technologies. This assay qualitatively detects *Chlamydia trachomatis* (APTIMA CT) or *Neisseria gonorrhoeae* (APTIMA GC) or both (APTIMA Combo 2) in endocervical and urethral swab specimens as well as in urine samples from symptomatic and asymptomatic individuals and is already FDA approved for testing vaginal swabs.

The advantage of the NAATs is their ability to detect organisms even with a low target concentration in specimens. This especially occurs in genital samples of asymptomatic individuals and their contact persons without signs of inflammation. The use of noninvasive specimens such as first void urine (FVU), vaginal swabs, and introital specimens contaminated with *C. trachomatis* or *N. gonorrhoeae* is an important approach for screening possibilities in individuals at risk for being infected. Furthermore, the number of organisms present at atypical infection sites such as rectal or pharyngeal regions might be low and amplification tests may therefore be recommended as the preferable diagnostic technique. While for chlamydial diagnosis NAA assays are now recommended as the gold standard method, molecularbiological techniques for gonococcal diagnosis are recommended in case of transport or storage problems as well as when culture is not performed in the appropriate way.

## **O-64**

### **IS HCV REALLY AN AGENT CAUSING STD OR NOT?**

***Attila Horvath,***

National Institute of Dermato-Venereology, Budapest, Hungary

Guidelines on clinical treatment of STDs, including CDC's version for 2002, discuss HCV as an STD pathogen. However, neither statistical data nor cohort studies have yielded conclusive evidence to support this view. On the other hand, HCV infection has been shown to influence, in fact to aggravate, the natural course of STDs. This applies especially to HIV infection.

## **O-65**

### **HIV/AIDS IN CHILDREN**

***Dan Forsea***

Department of Dermatology, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

Abstract not received

## **O-66**

### **PROSTATITIS - A SEXUALLY TRANSMITTED DISEASE**

***Višnja Škerk, Vjeran Čajić, Leo Markovinović, Srđan Roglić, Šime Zekan, Velimir Milošević, Arjana Tambić Andrašević***

University Hospital for Infectious Diseases "Dr Fran Mihaljevic", Zagreb, Croatia

Although prostatitis syndrome has been one of the most common entities in clinical urology there are still numerous questions to be solved, primarily its etiology. Prostatitis syndrome can be classified into acute bacterial prostatitis, chronic bacterial prostatitis, inflammatory and noninflammatory chronic pelvic pain syndrome without proved infection and asymptomatic inflammatory prostatitis. At the Outpatient Department for Urogenital Infections of the University Hospital for Infectious Diseases "Dr Fran Mihaljevic", Zagreb, in the period from January 1, 2003 until December 31, 2005, we examined 835 patients/examinees with prostatitis syndrome. The majority came to our hospital because of difficulties in the lower part of urogenital tract and perineum, and a small number due to infertility, reactive arthritis, problems of sexual partners or fear from acquiring a sexually transmitted disease. Patient history was collected, clinical status including digitorectal examination of the prostate performed as well as ultrasound of the urinary tract. In all patients/examinees, quantitative segmented cultures and bacterial identification as well as the number of leukocytes were determined in three voided urine samples (VB1, VB2, VB3) and expressed prostatic secretion (EPS) by using the 4-glass localization technique, described by Meares and Stamey in 1968.

The presence of *Chlamydia trachomatis*, *Ureaplasma urealyticum* and *Trichomonas vaginalis* was analyzed in EPS and third voided urine sample. The results showed the etiology of various categories of prostatitis syndrome with special reference to the importance of the so called "atypical", but frequent and unavoidable causative pathogens, such as *Chlamydia trachomatis*, *Ureaplasma urealyticum* and *Trichomonas vaginalis*.

## **O-67**

### **HERPES ZOSTER - UP-TO-DATE**

***Jana Hercogova***

Dermatology Department, Charles University, Prague, Czech Republic

Herpes zoster is an acute localized infection of a sensory nerve and ganglion characterized by pain and vesicular eruption in a dermatomal distribution resulting from the reactivation of a lifelong latent infection with the varicella-zoster virus (VZV) acquired during an earlier attack of varicella. During varicella VZV spreads along the sensory nerve from the skin to the sensory ganglion and after reactivation, VZV goes antidromically causing dermatomal pain and skin lesions. In immunocompromised patients, VZV spreads per continuitatem or haematogenously and disseminates to the skin and visceral organs. Clinical manifestations are variable and the course of the disease depends on the general healthy status - in otherwise healthy people it is a self-limited disorder, but in immunocompromised patients the course could be severe, prolonged, with multiple complications incl. fatal cases. Complications could be numerous, but postherpetic neuralgia is the most common, particularly in patients over 50 years old, in persons with severe pain or rash at presentation, and in those with significant prodromal symptoms. The overall incidence of herpes zoster in Europe is approximately 3 : 1000 people per year and more than 10 : 1000 people per year in those aged over 80 years. Antiviral drugs can effectively control acute symptoms and, if used early enough in the course of the illness, can help to prevent the complications.

## **O-68**

### **THE FUTURE OF THE VENEREOLOGY IN HUNGARY**

***Viktória Várkonyi***

Semmelweis University, Faculty of Medicine, Department of Dermatology, Venerology and Dermatoooncology, Budapest, Hungary

The morbidity of syphilis in Hungary has been increasing gradually since 1994 due to the outbreak of Eastern- European syphilis epidemic.

Despite of this tendency since the early 80s the number of reported gonorrhoea cases has been decreasing evenly and continuously thus reported data may mean only the tip of the iceberg.

When considering other STI (Chlamydiasis, HPV, HSV, Mycoplasma infections trichomoniasis) the situation is even more dubious due to not optimal collaboration with specialist other than dermatovenereologists.

In Hungary the management of patients with venereal diseases, - ie. follow up, contact tracing and partner notification - is performed by the nationwide network of outpatient departments for dermato-venereology since the 50s. Patients are obliged by law to undergo all this procedures. Incidence of venereal diseases reported by outpatients departments for dermato-venereology and the STD Center of the University Clinic for Dermatology and Venereology between 1999-2005 are presented and discussed.

It is pointed out that continuous graduate and postgraduate education on sexually transmitted and venereal diseases should be emphasized for all specialists dealing with patients with genital infections.

## **O-69**

### **DISPELLING MYTHS ABOUT GENITAL HERPES INFECTIONS**

***Airi Pöder***

University of Tartu, Tartu, Estonia

Genital herpes infections are common and increasing in prevalence. Despite this considerable misinformation persists amongst both patients and medical practitioners. Recent years has seen considerable improvement in our understanding of the pathogenesis, natural history, transmission dynamics and the risk of common and rare (but often serious) complications. This presentation will look at frequent questions that patients or practitioners ask and update the audience on current thinking in these areas.

1. Natural history: GH goes away with time and is usually not a problem for most patients
2. Pregnancy: all pregnant women with GH should be delivered by Caesarean Section
3. HSV Transmission; Transmission of GH between couples is inevitable

## **O-70**

### **WHITE PATHCES: THE INFECTIVE ORIGINS, THE DIFFERENT TREATMENTS**

***Torello Lotti***

Department of Dermatological Sciences, University of Florence, Florence, Italy

Abstract not received

## **O-71**

### **TROPICAL DISEASES IN DERMATOLOGY**

***Neira Puizina-Ivić, Antoanela Čarija, Dujomir Marasović, Sanja Babić, Suzana Levarda***

Department of Dermatovenereology, Clinical Hospital Split, Split, Croatia

Croatia as Mediterranean country has traffic and bussines connection with south countries, especially with north and west part of African continent. Sometimes, especially among sailors' population, some of tropical disease can enter into account for differential diagnosis. So, we present a short review of the most frequent tropical diseases which can be imported by sailors and tourists in our country.

## **O-72**

### **MUIR-TORRE SYNDROME: A CASE REPORT**

*Nevena Skroza, Concetta Potenza, Daniele Innocenzi, Stefano Calvieri*

Department of Dermatology and Plastic Surgery, University of Rome "La Sapienza", Rome, Italy

The Muir-Torre syndrome (MTS) is an autosomal-dominant genodermatosis characterized by the presence of sebaceous gland tumors, with or without keratoacanthomas, associated with visceral malignancies.

The defect is thought to be the result of a mutation in mismatch repair (MMR) genes (most often hMSH-2 and hMLH-1) and associated with microsatellite instability. Similar pathogenetic mechanisms are found in patients with the hereditary non-polyposis colon cancer syndrome, so that at least some patients with MTS are considered as having a phenotypic variant of that syndrome.

The sebaceous gland lesions in patients with MTS can often precede or occur concurrently with the visceral neoplasms. The early recognition of those lesions and their differentiation from sporadic sebaceous gland tumors are critical for proper patient management.

We describe a 42 years old female patient presented with multiple sebaceous carcinomas involving the skin and internal organs.

The patient underwent different surgical and chemotherapeutic procedures without improvement. The exitus was caused by aggravated clinical conditions due to diffuse organs infiltration.

## **O-73**

### **A CASE OF CONCURRENT EPIDERMOLYSIS BULLOSA ACQUISITA AND ANTI-p200 PEMPHIGOID -HOW TO TREAT IT?**

*Zrinjka Paštar<sup>1</sup>, Jaka Radoš<sup>2</sup>, Jasna Lipozenčić<sup>2</sup>, Ivan Dobrić<sup>2</sup>, Branka Marinović<sup>2</sup>, Norito Ishii<sup>3</sup>, Takashi Hashimoto<sup>3</sup>*

<sup>1</sup> Health Department, Ministry of Defence, Republic of Croatia; <sup>2</sup> University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia;

<sup>3</sup> Department of Dermatology, Kurume University School of Medicine, Kurume, Fukuoka, Japan

We describe a 65-year-old man with a six year history of clinical, histological and immunological features of mixture of epidermolysis bullosa acquisita and anti-p200 pemphigoid. Indirect immunofluorescence of 1M NaCl split human skin detected IgG antibodies reactive with dermal side. By immunoblotting of human dermal extracts, the patient sera reacted with both the 290 kDa type VII collagen and the p200.

Previous treatment with corticosteroids in combination with dapsone, cyclosporine, or mycophenolate mophetil, resulted in moderate response but in numerous side-effects. Therefore, high-dose intravenous immunoglobulin therapy using commercially available preparation was employed. The therapy was well tolerated without side-effects by our

patient. The result was promising. To date, one therapy course has been employed due to financial restrictions. We believe that repeated courses of high-dose intravenous immunoglobulins would reduce atrophic scarring and maintain the motility of palms and soles, as the symptom of the disease undisputedly leads to dermatogenic contractures and therefore is disabling the patient through life.

## **O-74**

### **MUCOUS MEMBRANE PEPHIGOID - REPORT OF A CASE**

***Davorin Lončarić, Branka Marinović, Ines Lakoš Jukić***

University Department of Dermatology and Venereology, Zagreb University Hospital Center, Zagreb, Croatia

Mucous membrane pemphigoid (MMP) is a group of putative autoimmune, chronic, and inflammatory, sub epithelial blistering diseases predominantly affecting mucous membranes that is characterised by linear deposition of IgG, IgA, or C3 along the epithelial basal membrane zone.

Patient presented with vesicles, crusted erosions and atrophic scars on the forehead, face and upper trunk. Topic antipyodermatic treatment was ineffective so biopsy of the skin was performed for light microscopy and direct immunofluorescence. Pathology revealed sub epidermal blistering disease. Direct immunofluorescence on salt split skin showed deposits of IgG, C3 and C4 components of complement on dermal side of vesicle. Ophthalmologic finding was normal. Oral mucosa was intact, but there was erythema of the posterior laryngeal commissure. During the disease patient developed erosion of oral mucosa located sublingually. Systemic corticosteroid treatment (Decortin 40 mg) was introduced with good therapeutic response.

MMP is mostly mucosal scarring disease with or without skin involvement. Localised skin form of the MMP is known as Brunstig-Perry type and is usually localised on head and neck. More than 90% of patients with cutaneous lesions have oral, and 60-70% also ocular lesions. Diagnosis of MMP should be made on the synthesis of clinical finding, histopathological examination, immunofluorescence of salt split skin and therapeutic response.

## **O-75**

### **PEMPHIGUS FOLIACEUS U DJETETA MOGUĆE INDUCIRAN AMOKSICILINOM**

***Slobodna Murat-Sušić, Karmela Husar, Branka Marinović, Davorin Lončarić, Ines Lakoš Jukić***

Klinika za kožne i spolne bolesti, Klinički bolnički centar i Medicinski fakultet Sveučilišta u Zagrebu, Zagreb

U djevojčice stare 5 godina, koja je inače bila zdrava, pojavile su se bulozne kožne promjene. Desetak dana ranije liječena je s amoksicilin-klavulonskom kiselinom zbog upale grla. Kako su promjene shvaćene kao impetigo, liječena je lokalno mupirocinom, a peroralno amoksicilinom. Unatoč terapiji došlo je do progresije lezija te je upućena na

Kliniku. Pri primitku bile su prisutne proširene plitke erozije po cijelom tijelu i vlasištu. Neke su bile prekrivene krustama, neke circinarnog i anularnog izgleda. Prisutno je bilo samo nekoliko intaktnih mjehura tankog pokrova. Promjene su bile smještene i perioralno te oko nosa. Nije bilo lezija na sluznici usne šupljine ni na genitalijama. Rutinski laboratorijski nalazi bili su uredni. U bioptatu kožne promjene nađen je akantolitički rascjep u gornjem spinoznom sloju epidermisa uz umjerenu spongiozu s egzocitozom u kojem su dominirali neutrofilni granulociti te malobrojni eozinofili. U direktnoj imunofluorescentnoj pretrazi (DIF) perilezionalne kože uočeni su depoziti IgG i C3 intercelularno. Indirektna imunofluorescencija, na ljudskoj koži kao supstratu, dokazala je prisustvo intercelularnih IgG protutijela u titru većem od 160. Metodom imunoblotinga nisu utvrđena IgG protutijela na BP 230, BP 180, 210 kDa envoplakin, 190 kDa periplakin te Dsg1 i Dsg3. ELISA metodom, koristeći rekombinantni baculoprotein Dsg 1, utvrđena su IgG protutijela u indexu 77,81 (visoko pozitivno), dok IgG protutijela na Dsg3 nisu dokazana.

Navedenim testovima potvrđena je dijagnoza pemfigus foliaceus (PF).

Liječenje je započeto s potentnim lokalnim kortikosteroidom (0,05% betametazon dipropionat krema). Povoljan klinički odgovor bio je uočljiv nakon svega tjedan dana terapije. Odluka o uvođenju sistemske kortikosteroidne terapije bila je razmatrana, ali odgođena zbog brzog i povoljnog učinka lokalne terapije. Nakon tri mjeseca kožne promjene su u cijelosti regredirale bez recidiva. Nakon dvije godine praćenja, bolesnica i nadalje nema nikakvih znakova bolesti.

Ne-endemijski PF je autoimuna bulozna dermatozna koja se rijetko opisuje u djece. Bolest može biti izazvana izlaganjem UV zrakama, nekim lijekovima te različitim infekcijama. Postavljanje dijagnoze PF induciranog lijekovima je teško, jer ne postoje klinički, laboratorijski niti histološki karakteristični parametri. Antibiotici, koji se često propisuju u djece, kao npr. amoksicilin, u literaturi su opisani kao mogući poticatelji nastanka PF u djece. Stoga je moguće da je amoksicilin bio provocirajući čimbenik u nastanku PF naše bolesnice.

## **O-76**

### **LINEAR IgA DISEASE OCCURRING IN A PATIENT WITH ULCERATIVE COLITIS - A CASE REPORT**

***Antoanela Čarija, Dujomir Marasović, Neira Puizina-Ivić, Jože Arzenšek<sup>1</sup>***

Department of Dermatovenereology, Clinical Hospital Split, Split, Croatia: <sup>1</sup> General Hospital, Celje, Slovenia

Linear IgA disease (LAD) is an acquired subepidermal blistering disorder occurring in both adults and children (Chronic bullous disease of childhood) associated with the deposition of IgA at the basement membrane zone.

There are a number of report of LAD associated with pre-existing inflammatory bowel disease, particularly ulcerative colitis (UC). In all reported cases with this association, the UC has preceded the onset of the skin disease by some considerable time, usually years.

We report the case of a 23-year-old women who developed extensive LAD, nine years after being diagnosed with ulcerative colitis.

We report the presentation, investigations and subsequent treatment of our patient.

**TYPE 1 NEUROFIBROMATOSIS WITH CENTRAL NERVOUS SYSTEM INVOLVEMENT - CASE REPORT**

***Lena Kotrulja<sup>1</sup>, Suzana Ožanić Bulić<sup>1</sup>, Ljerka Cvitanović-Šojat<sup>2</sup>, Romana Gjergja<sup>2</sup>***

<sup>1</sup> Department of Dermatology and Venereology; <sup>2</sup> Department of Pediatrics, Sestre milosrdnice University Hospital, Zagreb, Croatia

**INTRODUCTION:** Type 1 Neurofibromatosis (NF-1) is one of the most common autosomal dominant genetic disorders, with a high index of spontaneous mutations and extremely variable and unpredictable clinical manifestation. Multisystemic involvement is common, and a variety of problems may present in childhood including seizures and intellectual compromise, optic and acoustic involvement, intracranial and spinal tumors, and an increased incidence of malignancies, osseous defects, oral pathology, endocrine disorders, autonomic involvement, GI tract involvement, hypertension, and vascular anomalies. It is diagnosed by the existence of certain clinical criteria (eg. first degree relative with NF-1, café au lait macules, multiple neurofibromas, axillary freckling, Lisch nodules, optic glioma, osseous lesion). Some patients may primarily have cutaneous expression, while others may have life-threatening or severely disfiguring complications.

**CASE REPORT:** We report a case of type 1 neurofibromatosis found in 41-year old mother and her two daughters, age 8 and 16. No other family members had signs of neurofibromatosis suggesting a new genetic mutation.

Mother had multiple neurofibromas and café-au-lait macules all over her body, as well as two plexiform neurofibromas, on the face and in the inguinum, and was below average intelligence.

Both daughters had more than six café-au-lait patches larger than 15 mm in diameter, and the older girl already had multiple neurofibromas of the skin. Both daughters have mental retardation with learning disabilities. A screening MR scan of the brain showed bilateral gliomas of the optic nerve, as well as cerebral temporal glioma in the older girl. She developed seizures at the age of 14 following which carbamazepine therapy was introduced. She also underwent operation because of kyphoscoliosis. Radiograph findings of long bones showed multiple oval cysts in both femurs and right tibia. Linkage DNA analysis verified familiar form of NF1 in the older girl.

The younger daughter has more severe psychomotor retardation and was not talking until the age of 7. MR scan of the brain showed two cerebral gliomas, periventricular and supratentorial region. She has not experienced seizures until now.

**CONCLUSION:** Mother and two daughters with NF-1 with cerebral gliomas and psychomotor retardation were presented. The further neurological and ophthalmological follow up was recommended.

## **O-78**

### **ORAL ISOTRETINOIN AND TOPICAL 5-FLUOROURACIL COMBINATION IN THE TREATMENT OF RELAPSING INTRAURETHRAL CONDYLOMA ACCUMINATUM - A CASE REPORT**

**Filip Ser<sup>1</sup>, Vesna Mikulic<sup>1</sup>, Nevenka Urosevic, Dubravka Djeric<sup>1</sup>, Aleksandar Adamovic<sup>1</sup>, Spasoje Radovanovic<sup>1</sup>, Tijana Lakic<sup>2</sup>**

<sup>1</sup> City department for skin and venereal diseases; <sup>2</sup> Belupo-DOO, Belgrade, Serbia and Montenegro

Systemic isotretinoin has been used in the treatment of acne for a long time. However, isotretinoin also represents a potentially useful drug in many dermatologic conditions. Diseases such as psoriasis, pityriasis rubra pilaris, HPV infection, skin cancer, rosacea, hidradenitis suppurativa, granuloma annulare, lupus erythematosus, lichen sclerosus et atrophicus, and lichen planus have been shown to respond to the isotretinoin. The drug has immunomodulatory, anti-inflammatory and antitumor activity. Systemic isotretinoin may be considered as an alternative or adjunctive drug in some dermatologic diseases unresponsive or inadequately responsive to conventional treatment modalities. Condyloma are difficult to treat. Recurrences are almost the rule. Therapeutic options are many but with frequent recurrence rates. There are few reports in literature about a favorable effect of isotretinoin on the course of HPV infection. Various authors used isotretinoin in a dosage range from 0, 5mg/kg-1 mg/kg in treatment of Condylomata acuminata. Probably the adequate dosage may be in lower dose range. In a case presented, a male patient with a recurrent meatal condylomata acuminata was treated with laser vaporization, cautery, podophylotoxin gel, 5-FU, systemic immunomodulators (cimetidine), with recurrences usually in the first two months after the remission. A therapeutic trial with isotretinoin at 0,5mg/kg in a single dose was administered a week prior to topical 5-FU application. A sustained response to 5-fu was noted, but with a superficially, but more widespread erosion than at previous applications of 5-FU. However, epithelisation was more prompt. Topical steroids were used to prevent stricture formation. A non fluorinated, but potent agent such as 0, 05% alclomethasone is preferred. Patient was disease free three months after the medication was terminated. Six months later he was still without a recurrence. Although it is early for a conclusion, according to other authors and our experience, isotretinoin may have a place in HPV infection treatment especially in recalcitrant cases.

## **O-79**

### **TACROLIMUS OINTMENT IN THE TREATMENT OF VITILIGO - REPORT OF SIX CASES**

**Tomislav Mladenović, Željko Mijušković, Lidija Kandolf-Sekulović, Radoš Zečević**

Department of Dermatology and Venereology, Military Medical Academy, Belgrade, Serbia and Montenegro

Vitiligo is common, acquired skin disorder characterized by well-circumscribed milky-white cutaneous macules that have the tendency to expand over time. The etiology is complex.

**Objective:** The aim of this study was to assess the efficacy and safety of tacrolimus ointment in the treatment of patients with vitiligo.

**Methods:** Six men were studied, 3 with generalized, 2 with focal and 1 with segmented vitiligo. The median age was 31 years (range, 14-65 years). Written consent was given by all patients. The patients applied tacrolimus ointment 0.1% or 0.03% two times daily. Clinical photos were taken by Nikon Coolpix 4500 every four weeks.

**Results:** After 20 weeks, 4 patients had repigmentation more than 75%, 1 patient more than 50% and 1 patient had no improvement. All patients have noticed a slight burning sensation during the first 2-3 days of therapy.

**Conclusion:** We think that tacrolimus seems to be a good choice in the treatment of patients with vitiligo. Side effects are minimal and transient. Further study is needed to evaluate long-term safety and efficacy.

## **O-80**

### **CYLINDROMA - CASE REPORT**

***Ala Ageel, Zlatica Jukić***

Department of Dermatovenereology, Osijek University Hospital, Osijek, Croatia

A 74-years old woman was admitted in our department due to multiple, round, flesh coloured to reddish-blue tumors in great numbers on the scalp, frontal region and less in the neck, the skin overlying the tumors is atrophic and shiny. The diagnosis confirmed by pathohistological examination. Treatment : surgical excision of larger tumors, electrocauterization of smaller lesions covered with hemorrhagic crusts.

## **O-81**

### **CANCER METASTASES INTO SKIN AS A DIAGNOSTIC PROBLEM**

***Deny Anđelinović, Gea Forempoher<sup>1</sup>***

Department of Dermatovenereology; <sup>1</sup> Department of Pathology, Clinical Hospital Split, Split, Croatia

Cancer metastasize into skin can be considered diagnostic problem in modern dermatovenereology. In this case report we will present a metastasized facial skin tumor which was macroscopically ulcerated with elevated edges, 1,5 cm in diameter and which has been, after primary pathohistological analysis, diagnosed as primary spinocelulare skin cancer.

During the second biopsy on the neck of the same patient using the imunohistological staining, metastasis of the kidney adenocarcinoma has been diagnosed (vimentin+, CK8+, EMA -, CK7-, CK20-, CK10-).

By ultrasound and angiographic diagnostics of cystic formation on patient's kidney was found and clear cell adenocarcinoma was confirmed .

Imunohistological methods have proved to be an important diagnostic tool in differentiating metastatic tumor and primary skin cancer.

## **O-82**

### **FACIAL CONTACT DERMATITIS TO GLASS FIBERS ASSOCIATED WITH *DEMODEX FOLLICULORUM* INFECTION**

***Gotia Smaranda Rodica*<sup>1</sup>, *Bogdan Floare*<sup>2</sup>, *Ghitulescu Persa*<sup>2</sup>, *Solovan Caius*<sup>2</sup>,  
*Gotia Smaranda Laura*<sup>1</sup>**

Departments of <sup>1</sup>Physiology and <sup>2</sup>Dermatology, University of Medicine and Pharmacy  
"Victor Babes", Timisoara, Romania

Contact dermatitis is the most common cause of occupational skin disorders. Irritant contact dermatitis is the most prevalent form of contact dermatitis. A compound acting directly on the skin at the contact site causes irritant contact dermatitis. Mechanical causes of skin conditions include friction, abrasions, lacerations, and contusions. One common source of mechanical dermatitis is glass fiber.

From our patients with occupational contact dermatitis to glass fibers, we mention a particular case: a female, 47 years old, sent for investigation of *Demodex folliculorum* infection, in Laboratory of the Dermatology Department, Timisoara. Clinical examination revealed: intense red face, erythematosis, vesiculous lesions, excoriations and crust.

For contact dermatitis to glass fibers a specific investigation method was used. The scrapped samples collected from cutaneous lesions were examined under the microscope, for the *Demodex* mites.

The cutaneous test with scotch tape, specific for contact dermatitis to glass fibers, was positive on the lesion and round the lesion. The lesions show irritation produced by glass fibers and appear after the skin contact with it. The *Demodex* mites were found in the cutaneous lesions from the facial area, associated with the presence of the glass fibers. The specific anti-mites treatment was made, but occupational exposure to glass fibers must be avoided. The best way to prevent dermatitis while working with a skin damaging material is to avoid any direct skin contact with it. In all occupational exposure can be applied the control of exposures by eliminating the source (product substitution), capturing the contaminant along the pathway (engineering controls), and finally controlling exposures at the worker (personal protective equipment, administrative controls, personal hygiene).

If a worker develops dermatitis, he or she should seek the advice of a medical professional. It is important to ensure that workers get proper medical attention and that the exposure causing the skin condition is controlled or eliminated.

## **O-83**

### **PIGMENTED LESIONS - CLINICAL AND HISTOLOGIC DIFERENTIAL DIAGNOSIS**

***Ivan Dobrić, Jaka Radoš, Davorin Lončarić***

University Department od Dermatology and Venereology, Zagreb Clinical Hospital  
Center, Zagreb, Croatia

The incidence of malignant melanoma (MM) has bee raising in the past two decades. The work of dermatologist in early diagnostics is crucial. Since there is no adequate therapy

for metastatic MM, the best therapeutic approach is early diagnosis and prompt surgical excision of primary tumor. The outcome in early diagnosis of MM, the so-called "thin melanoma" (tumor thickness less than 1 mm), is great.

The second important fact is that MM is a skin tumor and is therefore localized on the skin in almost 100 per cent of cases. It makes it easy to diagnose by simply examination in a great number of patients. The diagnosis can be difficult when tumors imitate benign lesions and vice versa. It is important to keep in mind that a whole spectre of pigmented lesions are included in the differential diagnosis of MM, in order to understand the obstacles in pigmented lesions diagnostics. These are the melanocytic et non-melanocytic lesions which can be both malignant and benign.

Many studies have demonstrated that knowledge and skill of clinicians to accurately diagnose pigmented skin lesions is lower than we, our patients and colleagues would expect. The aim of this report is to remind us of the most common pigmented lesions in everyday dermatologic practice by showing their clinical and basic histological characteristics. The emphasis is on the differentiation of benign melanocytic lesions from MM.

We hope that this report will contribute to the knowledge of pigmented lesions and to a higher efficiency in the clinical diagnostics of MM (which is now about 75 per cent).

We also hope that the results of this report will reduce the number of unnecessary surgical excisions and late diagnostics (when tumor thickness is over 1mm, or when metastases have already appeared).

## **O-84**

### **CORRELATION BETWEEN CLINICAL-DERMATOSCOPIC AND PATHOHISTOLOGICAL DIAGNOSIS IN OUR PATIENTS**

***Leo Čabrijan, Matko Palle, Larisa Prpić, Gordana Zamolo***

Department of Dermatovenereology, University Hospital Center Rijeka, Rijeka, Croatia

In this randomised study we choose 103 patients with skin tumors, 43(42%) male, and 60(58%) female. The diagnosis were performed by clinical examination and using dermatoscope, and after excision was compared with pathohistological diagnosis. We used dermatoscope Heine proper delta 10 in our investigation. The clinical-dermatoscopic diagnosis were as well seborrheic warts 26 (25,24%), papiloma 17(16,5%), nevus pigmentosus 9 (8,79%), nevus dysplasticus 4 (3,88%), nevus in alt.mlg. 3 (2,91%), fibroma molle 8 (7,76%), Mb.Bowen 1(0,97%), basalioma 7 (6,79%), carcinoma cutis 6 (5,82%), haemangiofibroma 1(0,97%), haemangioma 3 (2,91%), keratosis actinica 5 (4,85%), melanoma 3 (2,91%), naevus fibromatosus 2 (1,94%), nevus blue 1(0,97%), nevus traumatisatus 1(0,97%), verruca vulgaris 1(0,97%), lymphocytoma 1(0,97%), nevus verrucosus 1(0,97%), lentigo solaris 2 (1,94%), Reed nevus 1(0,97%), and correlation with pathohistological diagnosis were the same in the 75 cases (72,82%).

We presumed that dermatoscopy allows diagnosis of the skin tumors in highest percentage, and lead to wright diagnostic and therapeutic procedure.

## O-85

### OUR EXPERIENCE WITH BIOLOGICS IN PSORIASIS

*Albero Giannetti*

Department of Dermatology, University of Modena and Reggio Emilia, Modena, Italy

Abstract not received.

## O-86

### BIOLOGICAL AGEING VERSUS PHOTOAGEING - WHAT'S THE RIGHT METHOD FOR REJUVENATION?

*Sanja Gregurić-Mateša<sup>1</sup>, Vesna Fabekovec<sup>2</sup>*

<sup>1</sup> Private practice, Zagreb; <sup>2</sup> Private practice, Samobor, Croatia

It has been proven that process of biological ageing completely differs from photoageing. Even histological changes in cutaneous structure proves that.

Photoageing starts with the first exposure to the sunlight e.i. UV rays. Skin type and alertness to sunprotection are the leading parameters that control the expression of photoageing.

AGEING	PHOTOAGEING
Genetically determined	Cheliodermatitis
Thinning the dermoepidermal junction	Capillary damage in papillary dermis
Thin epidermis, preserved architecture	Uneven epidermis, disturbed architecture
Decreased number, volume and activity of fibroblasts	Hyperplastic fibroblasts; excessive number
Preserved collagen content; Decreased elastin content.	Proteolytically decreased content of collagen; Excessively increased elastin content

Many different techniques are available for treating the expressions of sun-damaged skin (hyperpigmentations, freckles, lentigines, keratoses, vascular changes, skin tumors...). They differ according to patient's age and skin condition. Even excellently performed sometime the result is not perfect.

It is necessary to understand pathophysiology of cell damage by UV rays to understand what we are treating, how long the recovery would last and what result we will achieve on the skin. There's no unsuccessful treatments just wrong estimate of patient's skin condition.

It seems that main issue is to modify healing process. This can be done by adequate combining pre- and post-treatment administration of hyaluronic acid.