Dear Friends and Colleagues,

Professors: Romana Čeović, Giusto Trevisan, Marija Kaštelan and I have the honour and pleasure to welcome you all on traditional meeting with our Italian colleagues on the **8th Croatian –Italian Symposium on psoriasis,** organized by the Croatian Dermatovenereological Society of the Croatian Medical Association-Branch Zagreb and Croatian Academy of Medical Sciences, here in Zagreb, our beautiful capital of Croatia.

We hope you will be satisfied with the Scientific Program and the Book of abstracts too as well as with social program.

Zagreb has always been an inspiration to great minds and nowadays is an important touristic European destination.

We wish you a pleasant stay and come again,

Jasna Lipozenčić, Giusto Trevisan, Romana Čeović, Marija Kaštelan

SYMPOSIUM BOARD

Presidents

Jasna Lipozenčić
Giusto Trevisan

Scientific Secretaries

Romana Čeović
Marija Kaštelan

Scientific board

Ines Brajac, Rijeka, Croatia
Romana Čeović, Zagreb, Croatia
Enzo Erricheti, Udine, Italy
Franjo Gruber, Rijeka, Croatia
Marija Kaštelan, Rijeka, Croatia
Tatjana Kehler, Rijeka, Croatia
Franco Kokelj, Trieste, Italy
Krešimir Kostović, Zagreb, Croatia
Jasna Lipozenčić, Zagreb, Croatia
Branka Marinović, Zagreb, Croatia
Aida Pašić, Zagreb, Croatia
Larisa Prpić Massari, Rijeka, Croatia
Neira Puizina-Ivić, Split, Croatia
Mihael Skerlev, Zagreb, Croatia
Giuseppe Stinco, Udine, Italy
Sara Trevisini, Trieste, Italy

GENERAL INFORMATION

Symposium organizers

Croatian Dermatovenereological Society of the
Croatian Medical Association-Branch Zagreb
and Croatian Academy of Medical Sciences

Symposium venue and Accommodation

Hotel Dubrovnik,
Gajeva 1, Zagreb, Croatia

Official languages

The Official languages are Croatian and English
Simultaneous translation will not be provided

Registration fee

Registration for the Symposium is free.
Participants are invited to register for the Symposium via official web site: www. amzh.hr, before October 20, 2016

Certificate of attendance

The Croatian Medical Chamber has certified the
8th CROATIAN-ITALIAN SYMPOSIUM ON PSORIASIS
as it follows
Speakers: 9 points
Delegates: 7 points

Organizing and scientific secretariat

Romana Čeović
Department of Dermatology and Venereology
University Hospital Centre Zagreb,
University of Zagreb School of Medicine, Šalata 4, 10 000 Zagreb, Croatia
Tel:+385-1-2368-924
e-mail: romana.ceovic@zg.t-com.hr

SCIENTIFIC PROGRAMME

FRIDAY, 4th November 2016.

12.00 - 13.30 **Registration**
13.30 - 13.45 **Welcome Address**

PATHOGENESIS OF PSORIASIS AND PSORIATIC ARTHRITIS

Chairs: Jasna Lipozenčić, Giusto Trevisan

13.45 - 14.00 **Psoriasis as a systemic inflammatory disease**
Jasna Lipozenčić, Aida Pašić, Franjo Gruber, Leo Čabrijan

14.00 -14.15 **Psoriasis and immune-mediated diseases**
Ines Brajac, Valentina Saint Georges

14.15 - 14.30 **Skin microbiome, viruses and psoriasis?**
Mihael Skerlev

14.30 - 14.45 **The role of IL-17 in the immunopathogenesis of psoriasis**
Marija Kaštelan

14.45 - 15.00 **Psoriasis and comorbidities**
Neira Puizina Ivić, Dubravka Vuković, Ana Sanader, Lina Mirić-Kovačević

15.00 - 15.10 **Discussion**
15.10 - 15.45 **Coffee break**

CLINICAL AND DIAGNOSTIC FEATURES OF PSORIASIS AND PSORIATIC ARTHRITIS

Chairs: Romana Čeović, Marija Kaštelan

15.45 - 16.00 **Pregnancy in the era of biologics**
Romana Čeović

16.00 - 16.15 **Ultrasound in diagnosis of psoriatic arthritis**
Tatjana Kehler

16.15 - 16.30 **Dermoscopy of psoriasis**
Enzo Errichetti, Giuseppe Stinco

16.30 - 16.45 **Psoriasis pustulosa: a type of psoriasis vulgaris or distinct disease?**
Larisa Prpić Massari

16.45 - 16.55 **Discussion**

THERAPY OF PSORIASIS PART I

Chairs: Giuseppe Stinco, Mihael Skerlev

16.55 - 17.10 **Withdrawal of biologic treatment in psoriatic patients with a sustained optimal response: results of an Italian multicentre retrospective cohort study**
Giuseppe Stinco

17.10 - 17.25 **Anti-Interleukin-17A antibody in the treatment of moderate to severe plaque psoriasis: review of literature and our experience**
Sara Trevisini, Giusto Trevisan, Franco Kokelj

17.25 - 17.40 **Biologics and combination treatments**
Krešimir Kostović

17.40 - 17.50 **Discussion**

SATURDAY, November 5, 2016.

THERAPY OF PSORIASIS PART II

Chairs: Franjo Gruber, Ines Brajac, Enzo Errichetti

09.00 - 09.15 **Brief history of psoriasis therapy**
Franjo Gruber, Jasna Lipozenčić

09.15 - 09.30 **Experience with biologics in Osijek Hospital Centre**
Zlatica Jukić

09.30 - 09.45 **Pustular palmoplantar psoriasis in patients treated with anti-TNF-alpha: two case reports**
Sara Trevisini

09.45 - 10.00 **Psoriasis: difficult cases – a treatment challenge**
Suzana Ožanić Bulić, Vlatka Čavka

10.00 - 10.15 **Effects of naphtalanotherapy in treating psoriasis and psoriatic arthritis**
Goran Maričić, Jakov Ivković, Lucija Tomić Babić, Gordana Krnjević Pezić

10.15 - 10.25 **Discussion**

CASE REPORTS - RESIDENTS

Chairs: Larisa Prpić Massari, Sara Trevisini

10.25 - 11.00 Sandra Jerković Gulin - **Drug triggered psoriasis**
Ana Ivekić – Jambrošić - **Successful treatment of three immunological mediated diseases with adalimumab**
Lucija Bartolić - **Psoriasis in elderly**
Matea Jelača - **Vitiligo and bullous pemfigoid in a patient with psoriasis**
Mikela Petković - **Koebner phenomenon in psoriasis**

11.00 - **Closing Remarks**
Coffee break
Board meeting

BOOK OF ABSTRACTS

Oral presentations

PATHOGENESIS OF PSORIASIS AND PSORIATIC ARTHRITIS

O1
PSORIASIS AS A SYSTEMIC INFLAMMATORY DISEASE

Jasna Lipozenčić, Aida Pašić [1], Franjo Gruber[2], Leo Čabrijan[3]

Croatian Academy of Medical Sciences, Zagreb, Croatia,
[1] Retired Head of the Referral Center for Phototherapy of the Department of Dermatovenereology, University Hospital Center Zagreb, Croatia,
[2] Retired Head of the Department of Dermatovenereology, School of Medicine and University Hospital Center Rijeka, Croatia,
[3] The Department of Dermatovenereology, University Hospital Center Rijeka, Croatia

Psoriasis is a chronic inflammatory systemic relapsing autoimmune disease with a multigenetic predisposition, which occurs in about 2 % of patients in Croatia and different occurrence in the world. According to the clinical manifestations, psoriasis appears as plaque psoriasis, erithrodermic form and psoriasis pustulosa. Provocative factors that encourage psoriasis are infections, endogenous factors, hypocalcemia, psychogenic factors and medications. Psoriasis can be associated with various inflamed diseases: of autoimmune diseases (pemphigus, pemphigoid, vitiligo), slightly less with allergic diseases (atopic dermatitis, asthma, urticaria, allergic contact dermatitis). Psoriasis with severe type often have associated diabetes and metabolic syndrome, inflammatory dermatoses and skin cancer. The association of psoriasis with internal diseases are often (HIV, Crohn's disease, liver lesions, vascular diseases, amyloidosis and gout). Today psoriasis is considered as systemic inflammatory disease that can also affect the joints. Atypical localization of psoriasis as well as resistant cases of psoriasis and other papulosquamous and eczematoid dermatoses require detailed findings and confirming the possibility of the existence of other inflammatory diseases.
Beside the skin, the joints and many organs in psoriatic patients can be affected and stimulate to development of comorbidity diseases

which must be recognized and treating. Nowdays moderate and severe psoriasis forms are successful treating with biologicals.

O2
PSORIASIS AND IMMUNE MEDIATED DISEASES
Ines Brajac, Valentina Saint-Georges

Department of Dermatovenerology, University Clinical Hospital Center Rijeka, Referral Center for psoriasis Ministry of Health Republic of Croatia, Rijeka, Croatia

The inflammatory diseases, also named “systemic inflammatory disorders”, “autoimmune diseases”, and “immune-mediated inflammatory diseases”, are a large group of disorders characterized by inappropriately activated inflammatory mechanisms. Despite the common underlying mechanisms, these diseases exhibit different symptoms and signs. Similarities in the underlying mechanisms have begun to translate into specific immunomodulatory treatments, and thus, into comparable treatment strategies. Treatment options for inflammatory diseases have undergone major improvements over the past two decades with the development of biologics and other targeted therapies. While these treatment modalities have made it possible to offer dramatically improved outcomes for many patients, they have also raised questions on the most optimal therapeutic strategies, the choice of medications, and the pharmaco-economic implications. For all these aforementioned reasons, an overview of the field of therapeutics for psoriasis, as well as for other inflammatory diseases, must be further discussed.

O3

SKIN MICROBIOME, VIRUSES AND PSORIASIS?

[1]Mihael Skerlev, [1]Romana Čeović, [2]Aida Pašić, [1]Krešimir Kostović

[1]Department of Dermatovenereology, School of Medicine and University Hospital Center Zagreb;
[2]Retired Head of the Referral Center for Phototherapy of the Department of Dermatovenereology, University Hospital Center Zagreb, Croatia

Ubiquitous residents of human skin and mucous membranes as a part of the complex skin microbiome might be associated with several diseases such as seborrheic dermatitis, psoriasis, tinea versicolor, folliculitis, atopic dermatitis, and scalp conditions such as dandruff. Host-*Malassezia* interactions and mechanisms to evade local immune responses remain still largely unknown. *Malassezia restricta* is one of the most predominant yeasts of the healthy human skin, whereas the two main bacterial species found on the scalp surface were *Propionibacterium acnes* and *Staphylococcus epidermidis*.

There have been some paradoxical observations in literature regarding the pathogenesis of the HIV-related psoriasis, for instance. Most authorities ascribe the cause of psoriasis to overactive T-lymphocytes. On the other hand, HIV kills CD4+ T-lymphocytes, which stimulate the other main kind of T-lymphocytes, the CD8+ killer cells. Although HIV-positive patients have depleted CD4 cell populations, their immune system is overactive in many respects. It has been also observed (so-called “psoriatic paradox”) that drugs that target T-lymphocytes (e.g., cyclosporin) are effective in HIV-related psoriasis.

Thus, it has been widely accepted so far that good antiviral coverage is the best treatment for HIV-related psoriasis. However, effective use of HAART does not necessarily guarantee the regression of psoriasis and it definitely does not exclude the “standard” therapeutic regimens. For example, ultraviolet light therapy three or more times weekly has become the automatic backup when topical treatments fail to reduce the inflammation on their own. Topical and oral retinoids are sometimes used in the more severe forms of the HIV-related psoriasis. A last resort is high potency immune-

inhibiting therapy with cyclosporin or methotrexate. Hydroxyurea is considered a safer substitute in HIV/AIDS patients with psoriasis. It inhibits DNA production and has been already used to boost the anti-HIV potency of nucleoside analogs. The most recent, so-called biological medications, such as alefacept, tumour necrosis factors (TNF) and the anti-B lymphocyte stimulator (Anti-BLyS) represent new promising hope in the treatment of HIV-related psoriasis so far, but their real efficacy has yet to be evaluated. All the above mentioned drugs might have significant toxicities, which are enhanced in HIV/AIDS patients since such patients already face many remarkable drug-related problems. That is why HIV-related psoriasis could become part of a downward spiral of disease progression. Thus, the purpose of this paper is to point out the importance and the delicate nature of the viruses-related psoriasis.

O4

THE ROLE OF IL-17 IN THE IMMUNOPATHOGENESIS OF PSORIASIS

Marija Kaštelan

Department of Dermatovenereology, University Clinical Hospital Center Rijeka, Head of Referral Center for psoriasis Ministry of Health Republic of Croatia, Rijeka, Croatia

In psoriasis a variety of genetic and environmental factors can activate keratinocytes, causing them to release pro-inflammatory cytokines that further activate dendritic cells. It seems that dendritic cells are key players in the immune mechanisms causing psoriasis. Activated dendritic cells induce cytokine-specific differentiation of naive T cells. Depending on the type of antigen, dendritic cells produce IL-4, IL-23, or IL-12, causing naïve T cells to differentiate into Th2, Th17 or Th1 cells that then produce cell-type specific cytokines. Th-17 cells, which are maintained by the cytokine IL-23, produce the pro-inflammatory cytokine IL-17A as their signature cytokine. Psoriasis lesions contain an abundance of Th-17 cells. Although IL-17A is a key product of Th17 cells, it may also be produced by neutrophils and mast cells. It has been shown that IL-17A levels are significantly higher in psoriasis lesional skin compared with non-lesional skin. Evidence now suggests that IL-17A has a central role in the pathogenesis of psoriasis and is the key driver cytokine that activates psoriatic pathogenic inflammation.

O5

PSORIASIS AND COMORBIDITIES

Neira Puizina-Ivić, Dubravka Vuković, Lina Mirić Kovačević, Ana Sanader Vučemilović

Department of Dermatovenereology, University Clinical Hospital Center Split, Split, Croatia

Psoriasis is a disease with multiple dimensions; each of wich can contribute in a range of different ways to its overall impact on the individual. It is associated with significant physical, social, and behavioral comorbidities that create a substantial burden. Main problem is that these comorbidities start early in life and persist for decades, impacting the entire life course of patients with psoriasis.
It is a known fact that patients with moderate to severe psoriasis have an increased risk of conditions such psoriatic arthritis, cardiovascular disease, obesity, diabetes mellitus, and metabolic syndrome.
There is strong evidence, both clinical and scientific, supporting an association between psoriasis and cardiovascular risk. Reliable biomarkers of systemic inflammation of cardiovascular risk in patients with psoriasis have not yet been identified.
There is a growing association between psoriasis and gastrointestinal disorders. Patients with psoriasis have significantly elevated risk of nonmelanoma skin cancer.
Psoriasis is found ten times more frequently in alcoholics compared with nonalcoholics. Smoking may increase the risk of psoriasis and psoriasis may contribute to the persistence of smoking habits.
Psoriasis is independently associated with depression, stress-related disorders, and behavior disorders.
When compared with patients with psoriasis but without comorbidities, patients with psoriasis and comorbidities had significantly greater hospitalization rates, and outpatient visits.
The physical, psychosocial, and behavioral conditions associated with psoriasis impact all stages of life and ultimately contribute to the cumulative impairment associated with psoriasis. That is why is it important for dermatologists and general practitioners to have awareness of this issue to better manage psoriasis patients.

CLINICAL AND DIAGNOSTIC FEATURES OF PSORIASIS AND PSORIATIC ARTHRITIS

O6
PREGNANCY IN THE ERA OF BIOLOGICS

Romana Čeović

Department of Dermatovenereology, School of Medicine and University Hospital Center Zagreb, Zagreb, Croatia

Treating psoriasis in pregnant and lactating women presents a special challenge. Patients may or may not improve and may even worsen during pregnancy. According to the literature, 55% of cases of psoriasis improve during pregnancy, compared with 21% where there is no change and 23% where the condition worsens. Most women with psoriasis are able to conceive, and have normal pregnancy. With the increasing use of biological therapy to treat psoriasis, more authors are focusing on these issues. For ethical reasons, prospective randomized control trials have not been conducted in this patient population to answer the multitude of questions related to psoriasis treatment and pregnancy. The recommended first-line treatments for pregnant or breast-feeding women with limited psoriasis are emollients and low-to moderate –potency topical steroids. Second-line treatment is narrowband ultraviolet B phototherapy. Third line. Cyclosporine has been used in pregnant women with successful outcomes but is associated with low birth weight and prematurity. According to FDA, all anti TNFα agents (infliximab, etanercept and adalimumab) are category B drug in pregnancy (animal studies have failed to demonstrate risk to the fetus but there are no adequate and well-controlled studies of the effect of the drug on pregnant women). Because of the relatively long half-life of these medications, and theoretical concerns for immune compromise of the infant following exposure in the latter two trimesters, some clinicians recommend discontinuation of treatment in the third trimester to avoid potentially prolonged infant exposure

in the postpartum period. Placental transport of these medications is thought to be minimal in the first trimester, thereby providing some reassurance regarding theoretical risk for congenital malformations.

O7
ULTRASOUND IN DIAGNOSIS OF PSORIATIC ARTHRITIS
Tatjana Kehler

Head of Department of Rehabilitation Medicine, School of Medicine and Thalassotherapia, Opatija, Croatia

Psoriatic arthritis (PsA) is chronic inflammatory arthropathy of peripheral joints and axial sceleton occurring in 7% to 42% of patients with psoriasis. Enthesopathy is a hallmark feature of PsA. It is an inflammation at the sites where tendons and ligaments attach to the bone.
Musculosceletal ultrasonography (MSUS) plays an important role in the diagnosis of PsA. Standard radiography identifies late stages of the disease. MSUS is very important for detection and monitoring early inflammatory changes in joints, sinovial or cartilage thickness and erosiones.
MSUS is important to detect inflammation, even a small efflusion and enthesitis. In more than 50% enthensitis is „silent". Early MSUS markers of inflammation are oedema, sinovial effusion, thickness. Later MSUS markers are erosions and fibrousing/calcified the terminal portion of the tendon and osteophytes.
Using MSUS we have a possibility, to establish early diagnosis, control inflammation and prevent destruction as well as invalidity.

O8
DERMOSCOPY OF PSORIASIS
Enzo Errichetti, Giuseppe Stinco

Department of Experimental and Clinical Medicine, Institute of Dermatology, University of Udine, Italy

Even though diagnosing psoriasis is usually a straightforward task, there are cases in which the distinction from other similar conditions

may be challenging, thus requiring histologic assessment to reach a definitive diagnosis. In our presentation, we will discuss the dermoscopic features of various clinical forms of psoriasis in order to underline the usefulness of such a technique as a diagnostic aid for the noninvasive recognition of this dermatosis.

O9

PSORIASIS PUSTULOSA: A TYPE OF PSORIASIS VULGARIS OR DISTINCT DISEASE?

Larisa Prpić Massari

Department of Dermatovenereology, University Clinical Hospital Center Rijeka, Referral Center for psoriasis Ministry of Health Republic of Croatia, Rijeka, Croatia

Pustular psoriasis is considered a form of psoriasis characterized by pustules on normal-appearing or inflammed erythematous skin. Localized forms include palmoplantar pustular psoriasis that affects primary hands and feet and acrodermatitis continua of Hallopeau that presents with chronic lesions on distal fingers, nail folds and nail beds. Contrary, generalized form is generalized pustular psoriasis (GPP) with widespread erythema and sterile pustules associated with pain, fever and chills, as well as two of its subtypes: impetigo herpetiformis in pregnant woman and childhood GPP, generalized pustular psoriasis in children. Pustular psoriasis is also characterized with unique genetic features like missense variants in CARD14 gene and recessive mutations of IL36RN gene and AP1S3 gene that has not been found in classic psoriasis type. Consequently, psoriasis pustulosa is one of a common psoriasis forms that is found in paradoxal reactions during treatment of autoinflammatory disease with biologics. In treatment of pustular psoriasis, standard psoriatic systemic drugs such as retinoids, methotrexate and cyclosporin has still been used, however the literature shows beneficial response of all forms of pustular disease on treatment with biologics.

THERAPY OF PSORIASIS PART I

O10
WITHDRAWAL OF BIOLOGIC TREATMENT IN PSORIATIC PATIENTS WITH A SUSTAINED OPTIMAL RESPONSE: RESULTS OF AN ITALIAN MULTICENTRE RETROSPECTIVE COHORT STUDY

Stinco Giuseppe

Department of Experimental and Clinical Medicine, University of Udine, Institute of Dermatology, University Hospital, Udine, Italy

Biologic agents have constantly been shown to present a favourable benefit-risk balance in patients with moderate to severe chronic plaque psoriasis, both in clinical trial and real-world settings. The remarkable and sustained efficacy on cutaneous lesions, with consequent long-term potential benefits on related systemic comorbidities and quality of life, supports the continuous use of these agents and suggests that chronic and lifelong treatment with anti-TNF or anti-IL12/23 agents are necessary for maintenance of disease control.

Although the current paradigm in psoriasis management favors the use of biologic agents continuously, there are several circumstances in which interruption of therapy is warranted. Patients and/or clinicians may need to interrupt or terminate treatment due to cost burden, poor adherence, active infections, invasive surgery, and pregnancy. Furthermore, as psoriasis is a chronic inflammatory skin disease typically following a relapsing and remitting unpredictable course, it is not possible to exclude that in some cases the patients are treated in a stage of disease remission.

We report a real-life experience of some Italian dermatological centres regarding the suspension of biologic agents in psoriatic patients presenting disease remission for at least 12 months.

The main aim of this retrospective cohort study was to evaluate how long patients undergoing discontinuation of a biological agent (i.e. adalimumab, etanercept, infliximab and ustekinumab) could retain disease remission in order to understand time to relapse and assess

the proportion of patients who might not need to restart treatment in the medium/long-term period. Secondarily, we also investigated the likelihood to recapture disease control in case such drugs were readministered because of psoriatic relapse.

O11
ANTI-INTERLEUKIN-17A ANTIBODY IN THE TREATMENT OF MODERATE TO SEVERE PLAQUE PSORIASIS: REVIEW OF LITERATURE AND OUR EXPERIENCE

Sara Trevisini, Giusto Trevisan, Franco Kokelj

Institute of Dermatology, University of Trieste, Trieste, Italy

The recognition of the central role of interleukin 17A (IL-17A), produced by the Th17 subset of CD4 T-helper cells, in the pathogenesis of psoriasis has led to the development of several monoclonal antibodies targeting this cytokine or its receptors for therapeutic purposes. IL-17A promotes the expression of other pro-inflammatory cytokines. This cascade results in the activation of neutrophils and macrophages as well as epithelial cells and fibroblasts, and is considered to play an important role in the pathophysiology of many autoimmune diseases, including psoriasis. This new mechanism of action offers greater specificity and selectivity in targeting the specific downstream cytokine. There are three agents targeting IL-17 signaling being studied in Phase III clinical trials: Secukinumab and Ixekizumab (IL-17 neutralizing agents), and Brodalumab (IL-17 receptor antagonist). In particular Secukinumab is a first in class recombinant high-affinity, fully human monoclonal anti-human antibody of the IgG1/kappa isotype that selectively targets Interleukin 17A (IL-17A). The initial patient population studied with Secukinumab included patients with moderate to severe psoriasis. It has demonstrated to be highly effective with a favourable safety profile. It is generally well tolerated, with the most common adverse events being mild to moderate, non-serious infections, such as upper respiratory tract infections and nasopharyngitis. It improves symptoms rapidly and significantly. For these reasons, EMA and US Food and Drug Administration (FDA) approved in January 2015

Secukinumab as first-line systemic treatment of moderate-to-severe plaque psoriasis patients.
In Dermatologic Unit of Trieste, we recently treated 5 patients affected by moderate to severe plaque psoriasis with Secukinumab.

O12
BIOLOGICS AND COMBINATION TREATMENTS
Krešimir Kostović

Department of Dermatovenereology, School of Medicine and University Hospital Center Zagreb, Zagreb, Croatia

Not recived

THERAPY OF PSORIASIS PART II

O13
BRIEF HISTORY OF PSORIASIS THERAPY
Franjo Gruber[1], Jasna Lipozenčić[2]

[1] Retired Head of Department of Dermatovenereology, University Clinical Hospital Center Rijeka, Rijeka, Croatia
[2] President of the Croatian Academy of Medical Sciences, Zagreb, Croatia

Psoriasis diagnosis is easily accessible by inspection; however it is hard to find psoriasis in the antique texts. Hippocrates used the term psora (itch) but not a description of psoriasis. Celsus described the disease among the impetigines and treated them with a mixture of sulphur and pitch. Galen used the term psoriasis probably for seborrheic dermatitis. During the Middle Ages psoriasis was confounded with leprosy. The humoral theory continued to dominate for centuries and only after GB Morgagni and G.Baglivi the “solid “pathology slowly developed. In the 18th century appeared the first books dedicated only on skin diseases: D. Turner (De morbis cutanei 1714), treated lepra (psoriasis)with a broth of vipera, J von

Plenck (Doctrina de morbi cutanei 1776) treated " impetigines" with purgatives and baths of chamomile as Ch. Lorry (Tractatus de morbis cutaneis 1777). They can be considered protodermatologists. Robert Willan with his" On cutaneous diseases" (1798-1808) developed the first simple and practical classification of skin diseases based on the elementary lesions. His therapy and of the disciple Bateman consisted of herbs, some purgatives and mercury internally or topically and with creams. At the beginning of the 19 th century, in England, Girdlestone introduced arsenical solutions in the treatment of skin diseases; in Paris J L Alibert made a more sophisticated classification. His therapy consisted of baths, sulfur ointments, mercury. His followers, Biett, Cazenave, Giberti, were Willanist and treated psoriasis with arsenical, ointment of iodide of mercury. Vienna at the middle of the 19th century had a great importance for the development of Dermatology. There F.Hebra, introduced a classification based on the pathology. Together with Kaposi, treated internally psoriasis with Asiatic pills, demonstrated that the use of plants decocta was without effect, and favored the local therapy in psoriasis, sometimes using occlusion. In the second part of the century, B.Squire in England in1878 introduced the use of chrysarobin obtained from the araroba tree. E Wilson a prolific author recommended bathing, while R Crocker used internally salicylates in the therapy. In 1900 some proved to use X ray therapy. In the 20 century, Unna introduced antralin in the therapy, and then Goeckerman found that coal tar was effective if used topically, and more together with UVB. In the second part of the century in therapy were introduced corticosteroids, methotrexate, PUVA therapy and retinoids. Last decade a better understanding of the pathogenesis of psoriasis leads to a treatment based on biological agents.

O14
EXPERIENCE WITH BIOLOGICS IN OSIJEK CLINICAL HOSPITAL CENTER

Zlatica Jukić

Clinic of Rheumatology and Dermatology of the Department for Internal diseases, Osijek, Croatia

Psoriasis vulgaris is a chronic, immune-mediated, genetic systemic disease. It is always a challenge because of high prevalence, chronicity, disability and associated comorbidity.

It is the most common form of the disease. 80% of the psoriasic patients have a light to moderate form of disease and 20% of them have moderate to severe form. Moderate to severe form of Psoriasis vulgaris who are not on conventional therapy successful, patients need biologic therapy.
In Rheumatology and Dermatology Clinics of the Department for Internal Diseases 24 patients are treated with biologicals therapy.
Besides them, 14 patients were treated with biologics from the other departments from Slavonija.
Ustekinumab is the most frequent biologic drug in Osijek and it is used in 15 patients. Adalimumab is used for psoriasis in 5 patients and 1 for Hydradenitis suppurativa. Etanercept is administred in two patients for psoriasis and psoriatic arthritis. Secucimumab is in use in 3 patients. Rituximab is used for Pemphigus vulgaris.
Generally, 22 patients are on biologics due to Psoriasis vulgaris nowadays in Osijek.
Experience of treating 6 psoriatic patients with biologics will be presented.

O15
PUSTULAR PALMOPLANTAR PSORIASIS IN PATIENTS TREATED WITH ANTI-TNF-ALPHA: TWO CASE REPORTS

Sara Trevisini

Institute of Dermatology, University of Trieste, Trieste, Italy

TNF-α inhibitors (anti-TNF-α) are agents increasingly used in the treatment of a variety of chronic inflammatory conditions, including plaque psoriasis, resistant to classical disease-modifying treatment, and they provide significant improvement of disease activity. However, these agents have many cutaneous side effects including pustular psoriasis. This paradoxical effect of the anti-TNF treatment has been described with all anti-TNF drugs and in the different diseases in which they are employed as treatment. Pustular psoriasis induced or exacerbated by treatment with these drugs have been described in the literature, but the mechanism by which it

is produced is not clearly defined yet. The migration of T-cells to the skin induced by interferon alpha produced by plasmacytoid dendritic cells, the activation of auto-reactive T-cells, or certain infectious agents such as *Streptococcus* are some of the mechanisms described to explain the onset of psoriatic lesions due to anti-TNF therapy. It is difficult to predict the occurrence of paradoxical development and/or exacerbation of psoriasis in the course of anti-TNF-α antibody treatment. This paradoxical psoriasis can be treated with strong topical corticosteroids, vitamin D analogs, phototherapy, methotrexate or cyclosporine, but is occasionally refractory to conventional treatments. The discontinuance of the TNF-α has to be evaluated basing the decision on patient's underlying disease and gravity. We present two patients, one affected by plaque psoriasis and one by ankylosing spondylitis, who developed palmoplantar pustular psoriasis after receiving anti-TNF-α therapy. Both patients discontinued the anti-TNF drug and they had a complete response with retinoids, Acitretin 25 mg once daily. We reintroducted the anti- TNF-α antibody treatment to the patient affected by ankylosing spondylitis with strict clinical monitoring and he hasn't developed any more pustular eruption.

O16
PSORIASIS: DIFFICULT CASES – A TREATMENT CHALLENGE
Suzana Ozanić Bulić, Vlatka Čavka

Department of Dermatovenereology, School of Dental Medicine, University Hospital Centre "Sestre milosrdnice" Zagreb, Croatia

Psoriasis is a systemic inflammatory disease with significant comorbidities, whose management can be challenging. According to evidence-based guidelines, systemic drugs are treatment of choice for patients with moderate-to-severe psoriasis (1). First-line systemic treatment includes methotrexate, ciclosporin A and retinoids, whereas the second-line treatment is based on the biologics etanercept, adalimumab, ustekinumab and secukinumab for plaque type psoriasis. There are also new small molecules like apremilast, an oral phosphodiesterase 4 inhibitor, with an acceptable safety profile and is effective for treatment of plaque psoriasis (2). The most appropriate treatment is based not only on

disease severity but also on comorbid conditions and concomitant medications. Immunosuppressant agents are generally discouraged in patients with Hepatitis B, C and HIV infection whenever possible, although Brunasso et al. (3) reported that TNF inhibition may make peripheral T cells more reactive to antigens, such as those derived from microbes, and increase the effects of interferon-α on HCV. Patients with histories of cancer and comorbid moderate-to-severe psoriasis represent a serious treatment challenge (4). The available data on the use of biologic agents for psoriasis in patients with histories of cancer are limited making consultation with the patient's medical oncologist an obligatory and important in decision making pathway where all the risks and benefits should be assessed along with patient's quality of life.

1. Pathirana D, Ormerod AD, Saiag P, Smith C, Spuls PI, Nast A, et al. European S3-guidelines on the systemic treatment of psoriasis vulgaris. J Eur Acad Dermatol Venereol 2009;23(Suppl 2):1–70.

2. Thaci D, Kimball A, Foley P, Poulin Y, Levi E, Chen R, Feldman SR. Apremilast, an oral phosphodiesterase 4 inhibitor, improves patient-reported outcomes in the treatment of moderate to severe psoriasis: Results of two phase III randomized, controlled trials. J Eur Acad Dermatol Venereol 2016 Aug 18. doi: 10.1111/jdv.13918. [Epub ahead of print]

3. Brunasso AM, Puntoni M, Gulia A, Massone C. Safety of antitumour necrosis factor agents in patients with chronic hepatitis C infection: a systematic review. *Rheumatology (Oxford)*. 2011;50:1700-1711.

4. Persad P, Levender MM, Feldman SR. Commentary: psoriasis patients with a history of malignancy represent an important but overlooked study population. *Dermatol Online J*. 2011;17:10.

O17
EFFECTS OF NAPHTALANOTHERAPY IN TREATING PSORIASIS AND PSORIATIC ARTHRITIS

Goran Maričić, Jakov Ivković, Lucija Tomić Babić, Gordana Krnjević Pezić

Dermatology and Rheumatology Clinics of Special Hospital for Medical Rehabilitation, Naftalan, Ivanićgrad, Croatia

Introduction: Psoriatic arthritis (PsA) is an inflammatory joint disease associated with cutaneous psoriasis. Besides joints

and skin, tendons, ligaments and nails can be involved as well. Naphtalanotherapy proved effective in treating psoriasis and PsA, and is one of therapeutic options for those patients.
Aim of this research was to show effects of naphtalanotherapy in treating psoriasis and PsA in our hospital.
Methods: 41 patients with psoriasis and PsA with minimal score of 3 in CASPAR criteria, who were treated in our hospital from April 2012 until June 2013 were included in this study. Clinical examination of every patient was done at arrival at Naftalan, before naphtalanotherapy, and after 21 days of naphtalanotherapy. During their rehabilitation, patients received other physical therapy procedures as well. Besides clinical examination, patients performed „Timed Up and Go" (TUG) test and completed questionnaires as Health Assessment Questionnaire (HAQ), Functional Assessment Chronic Illnes Therapy (FACIT), Bath Ankylosing Spondylitis Functional Index (BASFI) and Bath Ankylosing Spondylitis Disease Activity Index (BASDAI).
Results: During mentioned time, 41 patients (male/female 23/18) were treated in Naftalan. Their average age was 54,6 years (range: 40-70). Average psoriasis duration was 23 (range 3-54), and average duration of PsA was 13 years (range: 0,5-39). Although average age was similar between males and females (male/female 54,7/54,6), psoriasis and PsA duration showed great differences between sexes. In females average psoriasis duration was 18,4 years, and PsA 9,1 years, however in males that number increases to 26,6 years for psoriasis and 16,1 years for PsA. 22 patients (53,7%) were treated systemicly, mostly with methotrexate (MTX) (11/22; 50%). During clinical exams tender and swallen joints were numbered. Patients had average 34,1 (range 2-60) tender and 13,4 (range 0-40) swallen joints before, and 9,9 (0-60) tender and 3,7 (range 0-29) swallen joints after naphtalanotherapy. Dactilitis at first exam was present at 34 patients (83%), but after naphtalanotherapy was conducted only 11 of them (26,9%) still had dactilitis. At first exam 26 patients (63,4%) had enthesitis, and 19 of them (46,3%) after three weeks of naphtalanotherapy. Visual analogue scale (VAS) for pain, we found average 2,3 points reduction between first and second exam (VAS score 1: 6,8/ VAS score 2: 4,5). Average time that was neccesary for patients to do TUG after rehabilitation was reduced from 11,4 to 9,9 seconds. Average initial PASI score was 8,64 (female 8,5 and male 8,74), while the final PASI score was 3.23 (female 3.62

and male 2,96). Of total 38 patients that had limitations in functional capability according to HAQ (3 patients did not have limitations), after three weeks of naphtalanotherapy in almost half (n=18;47,4%) of them improvement is found. Improvements were found in other questionnaires as well: BASFI in 65,9% (27/41), BASDAI in 73,2% (30/41), however in FACIT in only 29,2% (12/41).
Conclusion: Although this study does not have a control group which would make possible to evaluate exact efficiency of naphtalanotherapy, according to our results as well as empiric, we can conclude that three weeks of naphtalanotherapy has a positive treatment effect on psoriasis and PsA by reducing disease activity as well as improving patients functional capability.

CASE REPORTS

O18
DRUG TRIGGERED PSORIASIS
Sandra Jerković Gulin[1], Romana Čeović[2], Kresimir Kostović[2]

[1] Dermatovenereology Clinic, General Hospital Šibenik, Šibenik, Croatia
[2] Department of Dermatovenereology, University Hospital Center Zagreb and School of Medicine Zagreb

As psoriasis is a common skin disorder, knowledge of the factors that may induce, trigger, or exacerbate the disease is of primary importance in clinical practice. Drug intake is a major concern as new drugs are constantly being added to the list of factors that may influence the course of the disease. The clinical manifestations of drug-associated psoriasis can include plaque psoriasis, palmoplantar pustulosis, and rarely generalized pustular psoriasis. Drugs can cause: a) precipitation of psoriasis de novo in predisposed or nonpredisposed individuals (drug-triggered psoriasis), b) exacerbation of pre-existing psoriatic lesions, c) induction of

lesions in clinically normal skin in patients with psoriasis, and d) development of treatment-resistant psoriasis. Drugs that appear to be the most common causative agents for drug-induced, drug-triggered, or drug-aggravated psoriasis are beta-blockers, lithium, synthetic antimalarials, nonsteroidal anti-inflammatory agents, tetracyclines, and recently angiotensin-converting enzyme inhibitors. Understanding the pathophysiology can provide clues to treatment of drug-associated psoriasis.

O19

SUCCESSFUL TREATMENT OF THREE IMMUNOLOGICAL MEDIATED DISEASES WITH ADALIMUMAB

[1]Ana Ivekić – Jambrošić, [2]Marija Kaštelan, [2]Ines Brajac, [2]Sandra Peternel, [3]Srđan Novak, [2]Larisa Massari Prpić

[1] Sanatorium Veli Lošinj, Croatia
[2]Department of Dermatovenereology, School of Medicine University Clinical Hospital Center Rijeka, Head of Referral Center for psoriasis Ministry of Health Republic of Croatia, Rijeka, Croatia
[3]Department for Internal Medicine, University Clinical Hospital Center Rijeka, Croatia

Psoriasis, psoriatic arthritis, and Crohn's disease are immune-mediated inflammatory diseases, associated with increased expression of proinflammatory cytokines, particularly TNF-alpha. We herein report a case of a 35-year old male patient with a history of psoriasis since the age of 11 and psoriatic arthritis since the age of 18. Initially, the disease was treated topically, but poor disease control led to numerous different treatment modalities, such as phototherapy and photochemotherapy, systemic retinoids and methotrexate. Since no therapy achieved long-term satisfying remission, treatment with infliximab in combination with 7,5 mg methotrexate was initiated in 2008. Remission of both diseases was accomplished for a period of 5 years. However, during the summer of 2013, he was admitted to the Department of Dermatology, Clinical Hospital Centre Rijeka, due to generalized staphyloderma, which was due to diagnostic procedures and was later connected to the patient's immunosuppression. Due to the patient's condition, administration of infliximab was delayed. The infection was cured with antibiotics. During this period, a worsening of psoriatic arthiritis occurred, which

persisted for three weeks despite an increase in methotrexate and infliximab dosages. In the following week, the patient became febrile, with a convulsive pain in the abdomen and diarrhea. Bacteriological and mycological stool examinations, X-rays, and an abdominal ultrasound all showed negative results. Computed tomography of the abdomen and pelvis, along with a colonoscopy and subsequent histopathological analysis, confirmed a diagnosis of Crohn's diseas. The patient was transferred to the Department of Gastroenterology, where therapy with aminosalicylates and antibiotics was initiated, leading to a substantial improvement in the patient's health. A multidisciplinary approach was applied, and a team consisting of dermatologists, rheumatologists and gastroenterologists resulted in the initiation of adalimumab, which led to significant disease control. After 4 years of therapy consisting of adalimumab and methotrexate at a dose of 10mg, the patient is still in remission, without any psoriatic skin lesions, and without symptoms of psoriatic arthritis and Crohn's disease.

O20
PSORIASIS IN ELDERLY

[1]Lucija Bartolić, [2]Branka Marinović, [2]Romana Čeović

[1] Dermatovenereology practice „ Dr. Kedmenec Bartolić", Čakovec, Croatia
[2] Department of Dermatovenereology, University Hospital Center Zagreb and School of Medicine Zagreb

Psoriasis is multifactorial chronic inflamatory disease characterised by red scaly plaques. It affects both sexes and can occur at any age, with peaks of onset at 15-20 and 50-60 years. Due to the chronic nature of the psoriasis, it increasingly affects geriatric population, but psoriasis can manifest for the first time in later stages of life. The treatment of the older patients is somewhat challenging – immunosenescence, comorbidities andmultiple drugs complicate therapeutic options.
Although the exact prevalence and incidence of psoriasis in elderly group is unknown, psoriasis is very common in this age group. Late-onset psoriasis, sometimes termed type II psoriasis shows peak of onset between 57-60 years. The difference between the HLA

association was reported between early and late onset where very few patients show HLA-Cw6 marker if the late onset occurs. Late onset psoriasis is more sporadic in contrast to early onset disease which is very commonly familiar. Drugs can sometimes exacerbate psoriasis - ACI inhibitors can provoke it whereas withdraval from systemic corticosteroids can cause pustular of erythrodermic psoriasis. The treatment is challenging, skin of the geriatric population is more dry, with less production of the sebum or collagen. There are a lot of comorbidities like hypertension, diabetes mellitus, renal or liver impairement, heart disease and if the patient is taking a lot of medications for all of the above it can interact with the threatment of psoriasis. Aplication of topical corticosteroids is limited because of the thin skin of the patients, and systemic medications should be used cautiously because most of them are immunosupresants and even more increase the risks of comorbidities. Etanercept showed to be as safe as in younger population of the patients in studies performed on patients with diagnosed reumathoid disease. There is lack of data for other biologics.
We present two patients who developed psoriasis for the first time at the age of 85 and 92 which has been histologically confirmed.
Type II psoriasis is challenging task in terms of management and treatment. Patients are very fragile because of their age and comorbidities. The goal is to achieve clinical control of the disease and to improve quality of life of the patients, but further studies are necessery in terms of the management.

O21
VITILIGO AND BULLOUS PEMFIGOID IN A PATIENT WITH PSORIASIS

Matea Jelača, Ines Brajac, Edita Simonić, Marija Kaštelan

Department of Dermatovenereology, School of Medicine University Clinical Hospital Center Rijeka, Head of Referral Center for psoriasis Ministry of Health Republic of Croatia, Rijeka, Croatia

Psoriasis is a chronic immune mediated disease with a multifactorial etiology. Immunological factors are also involved in the pathogenesis of vitiligo and bullous pemphigoid. We herein present a case of an elderly male patient who has concomitant psoriasis, vitiligo and bullous pemphigoid. He has plaque psoriasis since 2012, one

year later he developed vitiligo and few months ago he presented with the clinical picture of bullous pemphigoid. Due to his multiple, chronic autoimmune conditions, treatment proved to be complex. Thus, an interdisciplinary treatment approach, regular follow-ups, and patient compliance were necessary to ensure disease control. We implemented a combination of systemic corticosteroid and immunosuppressive therapy resulting in disease remission.

O22
KOEBNER PHENOMENON IN PSORIASIS

[1]Mikela Petković, [2]Romana Čeović, [2]Branka Marinović

[1] Policlinic Nola, Zagreb, Croatia
[2] Department of Dermatovenereology, University Hospital Center Zagreb and School of Medicine Zagreb, Croatia

Koebner phenomenon, also known as isomorphic response (meaning Greek – equal shape), is the appearance of new skin lesion in uninvolved skin that has been traumatized either externally or internally. It was first formulated by Heinrich Koebner, the German dermatologist, in 1877 in psoriatic patients. Nowaday, the Koebner phenomenon is related to other skin diseases except psoriasis, such as vitiligo, lichen planus, eruptive xanthoma. Koebner phenomenon occurs in about 25% of people with psoriasis. The period from the injury to the appearance of new skin lesion is between 10 and 20 days, with range from 3 days to 2 years. Koebner phenomenon triggers include trauma (burns, bites, excoriations, freezing, lacerations, pressure), chemical irritation (positive patch test reaction, tatto-associated skin reaction, vaccinations, hair spray, tuerculin skin test), medical conditions (urticaris, shives) and other (phototherapy and UV damage, high-energy irradiation). Koebner phenomenon is particulary prevalent in unstable psoriasis, whereas conversely is not associated to disease activity and severity. It is essential to try to prevent Koebner phenomenon by avoiding sunburns, contact with irritans and scratching and postponing elective procedures while skin disease is stable or in remission.
We present 24-years old female patient who was reffered to our department due to newly formed erythematosquamous lesion localized on vulva. Lesions occured shortly after the patient gave birth. In dermatological status we found erythematosquamous plaques on

the labia majora. Remain skin, scalp and nails were intact. Due to particularity of localization, therapeutic possibilities are limited and include mild potency topical steroids, topical immunomodulators (pimecrolimus, tacrolimus) and moisturising ointments.

POSTER PRESENTATION

P1
BIOLOGICAL THERAPY IN QUANTIFERON-POSITIVE PATIENTS: OUR EXPERIENCE

Sara Trevisini

Institute of Dermatology, University of Trieste, Trieste, Italy

Since the introduction of biologic therapies, an increased risk of tuberculosis reactivation in patients with latent tuberculosis infection has been recorded. Therefore, its diagnosis and treatment has been recommended. To reduce the risk of reactivation several sets of guidelines have been proposed. There are no 100% specific or 100% sensitive methods for diagnosing latent tuberculosis infection: with the currently available methods, one cannot predict with certainty which patients will develop active tuberculosis during biologic therapy. To confirm active and latent tuberculosis, clinical manifestations (history taking and physical examination), chest X-ray screening, and infection tests are essential. The Mantoux test has now been replaced by the new interferon gamma release assay in the form of QuantiFERON TB-Gold In-Tube.
The traditional treatment regimen consists of isoniazid monotherapy for 9 months.
Post-marketing surveillance of biologics report a 2–6 fold higher rate of tuberculosis reactivation in patients receiving anti-TNF agents, with some differences among the specific drug. Indeed, the risk resulted higher for monoclonal antibody anti-TNF Adalimumab and Infliximab compared with Etanercept. The update literature confirms

that is no increased risk of tuberculosis reactivation in patients receiving non-anti-TNF targeted biologics such as Ustekinumab. In addition these patients have usually been previously treated with immunosuppressive therapies; therefore they should be evaluated for the host-related risk factors. At this time, screening and treatment before initiation of anti-TNF treatment has dramatically reduced the incidence of reactivation of tuberculosis in these patients.
In the Dermatologic Unit of Trieste 5 patients with latent tuberculosis and psoriatic arthritis have been treated with anti-TNF and non-anti-TNF targeted biologics. They have all been subjected to prophylaxis and none have developed active tuberculosis.

P2

MANAGEMENT OF BIOLOGIC THERAPY IN PATIENTS WITH HEPATITIS B - OUR EXPERIENCE

Sara Trevisini, Mattia Fadel, Serena Fagotti, Noal Cecilia, Katiuscia Nan, Silvia Vichi, Michela Longone, Nicola di Meo, Giusto Trevisan

Institute of Dermatology, University of Trieste, Trieste, Italy

The chance to encounter, in clinical practice, psoriatic patients in high need of immunosuppressive treatments infected by hepatitis B virus is not infrequent. The eventual reativation of hepatitis B virus due to the use of biologics in HBV-carrier patients may cause severe liver dysfunction. Current guidelines recommend screening and follow up in patients eligible for an immunosuppressive therapy to ensure the highest safety and the most successful treatment of both psoriasis and hepatitis. The variety of biological target therapies as well as the different stages of hepatitis B has to be taken into consideration. We present the current literature about this issue and our experience in the Dermatologic Unit of Trieste.

P3

PSORIASIS VERRUCOSA SURGICALLY TREATED: CASE REPORT

Katiuscia Nan, Silvia Vichi, Michela Longone, Noal Cecilia, Mattia Fadel, Serena Fagotti, Sara Trevisini, Nicola di Meo, Giusto Trevisan

Institute of Dermatology, University of Trieste, Trieste, Italy

Psoriasis verrucosa is an atypical clinical form of psoriasis characterized by remarkably thick and hard scales adherent to erythematous lesions, featuring a wart-like appearance. We present a case of a patient with psoriasis verrucosa that was surgically treated.

SPONSORS

Abbvie d.o.o.
Alvogen d.o.o.
Celgene International
Janssen Cilag
Oktal Pharma d.o.o.
Novartis d.o.o.
Pfizer d.o.o.
Remedia d.o.o.