



# 18<sup>th</sup> Congress of the European Academy of Dermatology and Venereology October 7-11, 2009 Berlin, Germany

EADV

PRESS RELEASE

## New Trends in Diagnosis and Treatment of Skin Diseases

### Highlights from the 18th EADV Congress

**Brussels/Berlin, 08.10.2009** – The 18<sup>th</sup> Congress of the EADV opened its doors yesterday at the International Congress Center (ICC) in Berlin. During a solemn opening ceremony, Eva Luise Köhler, wife of the German Federal President, wished all delegates a successful meeting. About 10,000 dermatologists, researchers and scientists from all around the globe came to join the largest-ever EADV conference. A premiere also as regards the meeting venue: for the first time ever, Germany's capital hosts the annual meeting of the EADV.

„Dermatology and venereology have a long-lasting tradition in Germany“, said Congress President Thomas Luger. „In particular, during the last decades of the 19<sup>th</sup> century Berlin became one of the European centers for dermatologists all over the world“.

As signified by its motto *Whats new in dermatology*, the congress presents current research and most recent developments in clinical and experimental dermatology until October 11, 2009. With more than 500 experts as invited speakers for plenary lectures, courses and symposia, the comprehensive programme covers a wide range of topics, from allergies to aesthetic dermatology.

Novel strategies in the treatment of atopic dermatitis, recent findings in psoriasis therapy, the challenges in dermatology today and tomorrow, as well as an update on aesthetic dermatology are among the key issues of this year's EADV Congress.

### **Atopic Dermatitis: Recent Findings in Pathogenesis and New Treatment Options**

Current research has shown that atopic dermatitis (atopic eczema), a very common inflammatory skin disease, is linked primarily to a skin barrier defect. These findings are in contrast to the longstanding theory that atopic dermatitis is caused by an immunological dysfunction. Both malfunctions, however, are due to genetic factors,

causing the development of a latent disease. Together with various triggers, such as food allergens, climate or distress, they eventually result in the complex medical condition of atopic dermatitis.

The defect in the epidermal barrier allows irritants, microbes and allergens to penetrate the skin and cause adverse reactions like inflammation and itching (pruritus). Proactive treatment, i.e. introducing interventions before patients even start to develop eczema and pruritus, is a new strategy in the management of the disease. About three million people in Germany are affected by atopic dermatitis.

### **Novel Imaging Technology: 5D-Intravital Tomography**

*5D-Intravital tomography* is a novel, worldwide unique tool for the non-invasive in-vivo analysis of the human skin. It delivers detailed images of the skin in five dimensions down to deeper layers. 5D Intravital tomography will contribute to a better understanding of the causes of various skin diseases, such as atopic dermatitis and skin cancer. Moreover, it will facilitate more accurate diagnosis and efficient control of new therapies. With 5D Intravital tomography images are acquired within seconds and with micrometer accuracy, while neither contrast agents nor biopsies are required.

The novel technology can be also applied to study dynamic processes in the skin instantaneously with great accuracy and precision. This is of particular interest for pharmacology, e.g., to monitor the distribution of active substances, which until now is possible only by means of laboratory models. 5D Intravital tomography opens new perspectives for a wide range of applications in skin research, as well as in cosmetic and pharmaceutical research. This method is presented during a plenary session at the EADV Congress.

### **Latest Advances in Psoriasis Treatment**

New findings in the pathogenesis of psoriasis in the last years have revolutionised the treatment options for this chronic skin condition. Biologics like TNF-alpha antagonists, in particular, have proven efficient in long-term disease management if conventional therapeutic procedures failed. Etanercept is the first biological product that was approved to treat psoriasis in children. Ustekinumab, another new drug that received approval for psoriasis therapy only recently, is a monoclonal antibody directed against the cytokine IL-23. Both substances are of similar therapeutic efficacy; Ustekinumab, however, is administered only every twelve weeks. Other new biologics and anti-inflammatory drugs are currently in clinical trials.

Psoriasis is a systemic inflammatory disease of the skin that also causes inflammation of the joints in almost 20 per cent of patients. The chronic inflammatory process induces an increased risk of hypertension and metabolic diseases, which may develop in the long run into cardiovascular diseases with severe complications such as heart attacks or strokes. The fatal risk of severely affected patients is more

than twice as high as in non-affected. Life expectancy of psoriasis patients is reduced by about three to four years. New treatment strategies providing a life-long control of the inflammatory processes will most likely lead to a reduction of the co-morbidities associated with psoriasis. More than 1.4 million people throughout Germany are suffering from psoriasis.

### **New Insights and Prospects in Melanoma Prevention**

Despite substantial efforts at the primary prevention level, the incidence and mortality rates of cutaneous melanoma continue to increase among light-skinned population worldwide. Surgical excision of the primary lesion remains the only effective treatment for early disease, while treatment for advanced melanoma, i.e., adjuvant immunotherapy for regional disease or chemotherapy for metastatic disease, offer only modest survival benefit. Prevention strategies in melanoma are directed towards reducing solar exposure, particularly in childhood and adolescence, and decreasing the rate of sunburns by avoiding sun exposure during the peak sunlight hours, wearing protective clothing, and applying high SPF sunscreens. The role of solaria remains a controversial issue, with several case/control studies suggesting an association between melanoma risk and artificial tanning.

Improvements in melanoma survival over the past decades are due to increased awareness of melanoma and, consequently, detection of the disease at an early, prognostically favorable stage. Several parameters have improved early detection activities of melanoma, either by the public or by physicians. The ABCD criteria have been a useful paradigm for early detection guidance, although it does not cover the small diameter (<6 mm) or nodular melanomas, which are a leading cause of melanoma mortality, particularly in elderly males. Therefore, the message of a “new” or “changing” skin lesion, has been recently advocated (ABCDE, with E standing for Evolution) to increase awareness about these ultimately fatal lesions.

In addition to physical examination, a number of diagnostic techniques, such as photography, dermoscopy, and computer image analysis have been shown to enhance the diagnostic ability of physicians and facilitate the examination of pigmented lesions. Lately, the novel concept of chemoprevention has been introduced, but its potential role and efficacy in melanoma prevention are under investigation.

### **Infectious Skin Diseases: From Simple to Severe Systemic Infections**

Infectious skin diseases and sexually transmitted infections are frequently first seen, diagnosed and treated and thus are integral parts of dermatology. These diseases range from “simple” ones such as common warts to severe systemic infections including HIV/AIDS.

Methicillin resistant strains of *Staphylococcus aureus*, i.e. bacterial strains which are resistant to conventional antibiotics, have been a threat since several decades. These bacteria were found predominantly in patients suffering from chronic diseases and were primarily “nosocomial infections”, i.e. infections occurring in hospitals. In recent year community-acquired MRSA strains have been increasingly observed, affecting otherwise healthy patients. Initially reported in the USA this germ has spread worldwide and has become a potential health threat also in Europe. Dermatologists therefore postulate unifying international efforts to combat the further spread of CA-MRSA. Possible treatment options include antiseptic emollients and soap substitutes that have shown efficacy in the control of resistant bacterial strains.

The spread of head lice is usually associated with poor socioeconomic conditions and war and post-war periods. In recent years head lice have been frequently observed in school children in several European countries and public campaigns to fight their spread have been conducted. Treatment for head lice is usually performed with repeated use of antiseptic shampoos and special combs lasting. Oral ivermectin, a systemic anti-parasitic drug given in two doses seven days apart, has shown an effect superior to the topical treatment.

Genital herpes caused by herpes simplex viruses is the most frequent sexually transmitted infection. It is not only painful but facilitates the transmission of other sexually transmitted diseases including HIV-1. If a recurrence of genital herpes of the mother occurs before birth – the infection can be transmitted to the neonates and may result in a life threatening disease. The management of genital herpes and the use of prenatal antiviral treatment to reduce the rates of recurrences and the viral shedding in pregnant women are currently being intensively discussed among dermatologists.

### **Growing Interest in Aesthetic Dermatology and Dermatosurgery**

Continuously increasing life expectancy and growing expectations in an attractive appearance have induced an unprecedented surge in the demand of dermatosurgery and aesthetic dermatology. Aesthetic dermatology has meanwhile become the fastest growing part of dermatology due to an growing interest in both patients and dermatologists. According to the American Society of Aesthetic Plastic Surgery, the number of cosmetic procedures has increased from 2.7 million in 1997 to 10.2 million in 2008.

Botulinum injections, application of fillers and laser hair removal are among the most common cosmetic procedures. Apart from demographic changes and consumer expectations, the rising number of cosmetic procedures also results from growing affluence and technological advances that also provide improved safety and less side-effects for the patients.

Numerous innovative therapeutic approaches are now being used in addition or instead of conventional surgical procedures in the treatment of skin diseases.

They are successfully applied to skin malignancies, like melanoma, basal cell carcinoma and squamous cell carcinoma, as well as to many other skin diseases and cosmetic indications.

Positive outcomes of these therapeutic measures also involve the patients' quality of life, as seen, for example, in the treatment of acne scarring with silicone injections, which may improve patients' self-esteem, social life, and employment chances.

Aesthetic dermatology, however, also needs to deal with a high number of psychological disturbances among dermatology patients. Depression is seen in 30 per cent of general dermatological patients. According to recent studies, 12 per cent of general dermatological patients suffer from body dysmorphic disorder, the prevalence in persons seeking cosmetic botulinum is 23 per cent, and in patients seeking laser therapy between 30-40 per cent.

### **European Academy of Dermatology and Venereology (EADV)**

Founded in 1987, EADV is a non-profit association whose mission is to advance excellence in clinical care, research, education and training in the field of dermatology and venereology and to act as the advocate and educator of patients particularly those with cutaneous or venereal diseases. <http://www.eadv.org>