Stockholm County Council (2 million inhabitants) has been estimated to be 0.7/100,000 persons/year and for all SCLE 1.0/100,000 with an estimated prevalence of 8.9–20/100,000 persons. The incidence of SLE in Sweden is 4.8/100,000 persons/ year. In a recent study, CLE incidence in Sweden was shown to be 4.0/100,000. More than 10% of the whole group of CLE, and >20% of SCLE patients, progressed to SLE within 1 year.

CLE can be treated with local treatments by using steroid or tacrolimus creams. Often oral treatment is needed, hydroxychloroquin in the first line but quinacrine can be added if available. Prednisolone can be combined especially in the beginning to get a more rapid response. Other possibilities are immune suppressive metotrexate, atsathioprine and mycophenolate mofetil or acitretin/isotretinoin and even thalidomide. In the most complicated cases of SLE can rituximab or belimumab be used both of which have also effect on the mucocutaneous symptoms.

## FILIPPA NYBERG<sup>1</sup> AND JAANA PANELIUS<sup>2</sup>



<sup>1</sup>Svenska Läkaresällskapet, Stockholm, Sweden and <sup>2</sup>Department of Dermatology, University Hospital of Helsinki, Finland E-mail: filippa.nyberg@sls. se, jaana.panelius@hus.fi photographed with an iPhone and sent by e-mail from general practitioners to dermatologic clinics. Compared to the ordinary process malignant melanomas at excision was 1 mm thinner. This means a major improvement in prognosis for the patient.

*Olli Saksela: Risk of New Melanomas in Multinaevus Patients.* Patients with many naevi run a greater risk for developing malignant melanoma. In the current lecture, handling of this dilemma was discussed. It is important that dermatologists see patients with suspected malignant melanomas due to the better sensitivity and specificity.

*Olga Tatti: MT3-MMP Controls a Proteolytic Switch Between Blood Vascular and Lymphatic Invasion of Melanoma Cells.* In the process of metastasis, tumour cells invade lymphatic vessels. It clearly correlates with poor prognosis. The author found that MT3-MMP (membrane-type-3 matrix metalloproteinase) was over-expressed in nodular malignant melanomas and lymph node metastases. It seems that MT3-MMP acts as a molecular switch of vascular invasion. MT3-MMP may impair blood vascular invasion.



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## Pigmented Lesions and Melanoma

Olle Larkö: New Imaging Techniques in the Diagnosis of Melanoma. The incidence of malignant melanoma is increasing rapidly in the Nordic countries. Also, mortality is high. A dermatologist is better at diagnosing melanoma than doctors from other disciplines. However, even dermatologists miss a substantial fraction of possible melanomas. Hence, new imaging devices must be developed to facilitate diagnosis. So far we have relied on dermatoscopy, but more innovative devices are just around the corner. It includes SIASCOPY where monochromatic light is reflected from the tumour surface is reflected and image analysis carried out with a special algoritm. Also confocal microscopy adds value to the diagnostic process. Several apps for smartphones have been developed but their value and safety has yet to be established.

*Carin Sandberg: Mobile Teledermoscopy for Fast Track Management of Skin Cancer*. The skin cancer incidence is rising at an alarming rate. For malignant melanomas the only really effective treatment is early detection and excision. This means that the referral process is critical. New technologies have emerged with smartphones, etc. In a large project it has clearly been demonstrated that the use of modern IT technology speeds up the referral process. In this study, images of suspected tumours were

## Non-melanoma Skin Cancer & Actinic Keratosis

Non-melanoma skin cancer (NMSC) includes all primary skin cancers except melanoma. The most frequent are basal cell (BCC) and squamous cell carcinomas (SCC) (Fig. 1), but actinic/solar keratosis (AK) is today considered to be an initial SCC; another term is keratinocyte intraepithelial neoplasia (KIN). About 40% of metastatic SCCs start as AK. The aetiology of NMSC is UV radiation, and the incidence is increasing.

Sari Koskenmies: Aetiology and Treatment Options for Non-Melanoma Skin Cancer & Actinic Keratosis. Aetiology and treatment options for non-melanoma skin cancer (NMSC) presented. In USA in 2006 an incidence of >2 million patients with over



Fig. 1. Squamous cell carcinoma of the lip.

3 million NMSC was estimated. 70–80% of all NMSC are BCCs and 20% SCC.The risk of developing NMSC is mainly related to UV irradiation exposure, but genetics and muta-





Fig. 2. Cryo therapy of actinic Fig. 3. Field cancerization; skin keratosis.

with multiple actinic keratosis and Mb. Bowen lesions.

tions are also important. There are many options for treating NMSC, surgery, radiotherapy, cryotherapy (Fig. 2), laser treatment, PDT and others. The choice of treatment is based on a number of factors often specific for the patient. Prevention measures are important, i.e. sun protection and education of the population about the danger of UV exposure.

Lasse R. Braathen: The Field Cancerization Concept and its Implication for the Choice of Treatment. Field cancerization is a frequent finding in sun-exposed and damaged skin of today's elderly population in which they develop multiple and recuring non-melanoma skin cancers. It is a chronic disease, and these patients need treatment of the whole field cancerization areas, often repeated treatments, and inclusion in a followup program. The treatment options are restricted to include therapies that allow to treat larger areas without too much discomfort and with a good cosmetic outcome. Photodynamic Therapy (PDT) is a good option.

Stine Wiegell: Daylight Photodynamic Therapy (D-PDT); the Painless Option. The new innovative Daylight Photodynamic Therapy was presented. The treatment offers the possibility to treat large areas without pain, and the clinical response is just as good as with conventional PDT using a lamp. Complete clinical response for AK as well as for BCC is in the range of 80–90%.

Olle Larkö: Pain Management of Conventional PDT. Water spraying of the treatment field during the illumination is a frequently used option. The most frequently used lamp has an inbuild fan, but an additional fan can also be used. A nurse talking to the patient during the illumination often serves to help the patient to better endure the pain. In patients with severe pain nerve blocks can be used.

At the end of the session some selected cases where presented and discussed, and two selected posters were presented; A.P. Kaukinen on mast cells and regulatory T cells increased in BCC, and M. Farshchian on EPHB2 receptor modulation of gene expression signatures involved in migration and invasion of cutaneous SCC cells.



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## **Cutaneous Microbiome and Infec**tions

Harri Alenius: Skin microbiome – what do we know? Microbiome is the collective genomes of microorganisms that reside in a particular ecological area, in this case skin. Skin microbiome was discovered and published in 2009 in Science magazines. After metagenomic high-throughput techniques were developed, it was found out that approximately 99% of microorganism material had been earlier undetected, as diagnosis was based on microbial cultures, for which skin microorganisms do dot usually grow. After this finding, it was found out that skin microbiome is site-specific and specific for individuals. However, it is consistent over time in each individual's specific skin site.

Harri Alenius described in his talk that when diversity of skin microbiome was studied, it was shown that lack of diversity in skin microbiome increases risk for atopy. Interestingly, the biodiversity of environment (urban vs. non-urban) was similarly correlated to atopy, i.e. lack of diversity correlates with atopy. This finding shows that so-called hygiene hypotheses may not only be related to amount of microbe contact, but also to diversity of microbes and environment.

Antti Lauerma: Interaction of microbial infections and immunity. The importance of microbe-immunity and microbe-microbe interactions were described. Staphylococcus aureus uses skin immune system to advance an environment where it thrives, i.e. eczema. On the other hand, S. epidermidis, that competes with same resources, has capability to kill S. aureus, that explains why in healthy skin S. aureus is usually found in small amounts.

*Bardur Siguirgersson: The prevalence of onychomycosis – a review* of the literature. An overview on onychomycosis was presented. Eleven population-based studies had been published in the literature. Based on these studies the true prevalence of onychomycosis in the general population in Europe and the US seems to be between 2 and 8%.



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