Fig. 2. Cryo therapy of actinic keratosis.

Fig. 3. Field cancerization; skin 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 follow-up 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.

Lasse R. Braathen
Dermatology Bern, CH-3063 Ittigen,
Bern, Switzerland
E-mail: lasse.r.braathen@bluewin.ch

Cutaneous Microbiome and Infections

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%.

Antti Lauerma
Skin and Allery Hospital,
Helsinki University Central Hospital,
FI- 00250 Helsinki, Finland
E-mail: antti.lauerma@hus.fi