



Fungal infection of the nail and wart infection – Usage of Micro-algae strains with anti-microbial and anti-viral function in Active Substance Cosmetic products in the practice of podology!

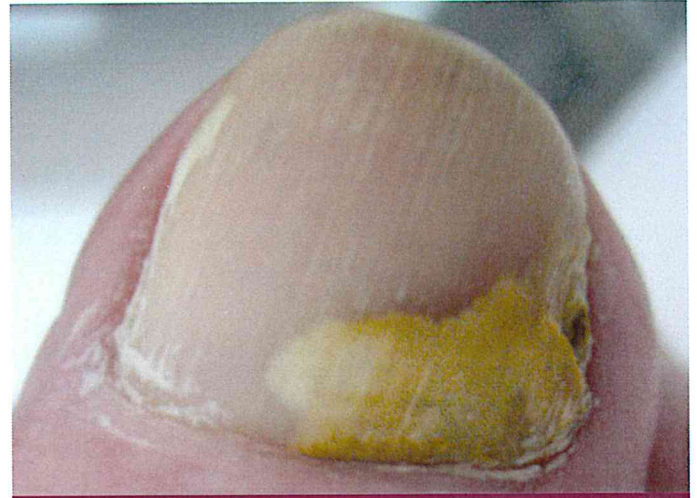
Interview with the Podologist Anke Niederau

Microbial infections of the skin and nails as well as wart infections are problems that occur frequently in the daily practice of medical foot care. The result achieved in treatment will be strongly limited if adequate measures are not put in place. Patients of diabetes pose a special challenge in this process. Aggressive methods of treatment do not apply in such cases.

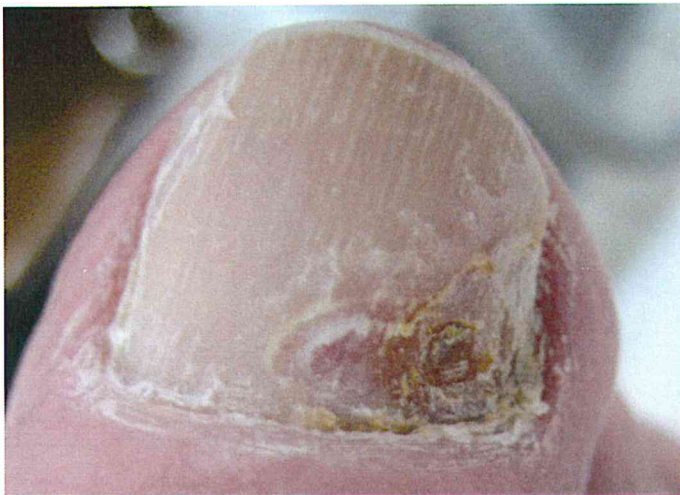
Since 2005, specially prepared micro-algae have been successfully applied in active substance cosmetic compounds in the field of medical foot care [1]. The enzymes of these micro-algae break down chitin structures in the characteristic manner of all human pathogenic fungus types. The products used by these micro-algae extracts therefore offer fungicidal protection and in a sustainable manner, against microbial impacts. Since human cell structures do not show ratios of chitin, no damage can be expected and their application in cosmetics remains without hazards. Bacterial activities are inhibited in a sustained manner (e.g. staphylococcus aureus: -80% inhibition) [1,2,3].

Polysaccharide Calcium complex in the structures of micro-algae (also referred to as “Calcium spirulan” in reference sources) protects healthy cells in a very effective manner, against infiltration by HSV and HPV viruses even under an already available wart tissue [4]. The protected healthy tissue may then successively replace the virally infected wart

Illustration 1a-e: Treatment of fungal infection – Case study: 73-year old patient with PSO.



1a: PSO



1b: after filing off the infected nail parts



1c: After 4 weeks of applying the specially prepared active agents of micro-algae.



1d: after 6 months



1e: After 10 months of consistent application

Illustration 2a-d: Wart infection – Case study: 40-year old lady under prior therapy (laser, medicinal therapy); improvement in the course of the application of Spirularin® VS since February 2011



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(Quelle: Anwendungsergebnisse des Dermatologikums Hamburg)

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tissue [2]. This happens painlessly and causes no such wound that may tend toward recrudescence as in other effective methods. Both methods are of enormous benefit particularly to diabetics and children. However, good compliance is required for the application that follows two times daily.

We interviewed the podologist and author of technical books for specialists, Anke Niederau from Düsseldorf, on her experiences in practice and in this thematic constellation.

Esthetic Dermatology:

Good day Ms. Niederau. Why are you reaching out to dermatologists through this interview?

A. Niederau

Good day Mr. Höppner. First and foremost, because you invited me to do this interview! I was also glad to accept it

because it is of utmost importance to me to intensify working cooperation and the exchange of information with medical doctors. Above all else, integrated medical care stands to be beneficial to patients. I am however experiencing the reality that a lot of work still needs to be done in this area. A large part of my clients undergoes medical treatment on regular basis, with family doctors, diabetologists and dermatologists. The patient always stands to gain tremendously from an atmosphere, in which communication and cooperation thrive; several years of practical experience on my part have however shown that this is unfortunately, not really the case.

Esthetic Dermatology:

You introduced the compendium "The grand book of nail diseases" to the market in the year 2009, for podologists and achieved a lot of success. Your book was also lauded by medical doctors. The second, revised version will be released this year. Since several years, you have also been



April 2011

very active in the training and advanced training of would-be podologists and practitioners. What motivates you in doing that?

A. Niederau

I love my profession and am grateful for the opportunity to help my clients and patients. That surely remains the central motive in all healthcare professions. I am glad to pass over my knowledge and experiences to enable as many people as possible profit from them. Since this year, I have been actively helping in the build-up of a podological discipline in Turkey and have already conducted examinations on a final year class of a newly founded Foot Care School in Istanbul. I derive much pleasure from doing precisely such things.



July 2011

Esthetic Dermatology:

Among podologists, people are already talking of the "Niederau method" in the treatment of fungal infected nails in podological practice. What do you understand by that?

A. Niederau:

I do not think this is yet an established term that can be quoted. Many thanks for the honor though. The term stands for the combined treatment and attendant protective care with the nail products of active substance cosmetics containing the specially prepared micro-algae extracts. First, I begin by clearing off the surfaces of fungal infected nails using mechanical methods and if applicable, also urea occlusive dressings as broadly as possible. The client then continues at home using protective nail care two times daily so-to-speak, as secondary prophylaxis to prevent fresh infection until all nails have completely regenerated. It has been observed that the products also work when the client is intolerant to the treatment of the nail even in the case of

Products with specially prepared Arthrospira Micro-algae extracts available in the German-speaking region of Europe
<p>Nails</p> <p>Spirularin nail serum, Ocean Pharma GmbH (D)/Simon Keller AG (CH)</p>
<p>Wart-sensitive skin:</p> <p>Spirularin VS, Ocean Pharma GmbH (D)</p>
<p>Herpes-sensitive lips</p> <p>Spinularin HS cream, Ocean Pharma (D)/ Simon Keller AG (CH)/ECA Medical GmbH (A)</p>
<p>Problematic skin (Acne, Rosacea amongst others)</p> <p>Skinicer Repair Care Product line, Ocean Pharma GmbH (D)</p>
<p>Itching, irritated scalp</p> <p>Skinicer Sedative Shampoo, Ocean Pharma GmbH (D)</p>

Table 1: Overview of products with specially prepared Arthrospira Micro-algae extracts available in the German-speaking region of Europe.

a complete infection of the nails. However, the combined method shows the highest rate of success. Amongst others, I am supervising two full care homes, where I have been able to reduce the “rate of fungal infection” from 80% to 20% in the past few years. This earned me a lot of pleasant feedback from relatives of the clients and care staffs.

Esthetic Dermatology:

Does that work with all products containing micro-algae agents?

A. Niederau

No. Micro-alga uses enzyme actions for its own protection only if it is being threatened and is undergoing a stress situation. Specific strains with sufficient base activity are therefore subjected to artificial stress or activated using protected methods. For this reason, only a few providers have access to adequate active agents. [A list of currently available products is shown in Table 1 – Editor]

Esthetic Dermatology:

What do you mean by wart treatment without pains and wound? Does that truly work?

A. Niederau:

Yes, for as long as the affected person truly cooperates consistently. The product shall equally and simply be applied two times daily by the patient personally. It does not hurt and no tissue is damaged. Even plantar warts that reach deeper into the tissue grow outwards in gradual progression. In such case, I support the application in practice by carefully excising the wart-induced hyperkeratosis using a scalpel, without inflicting injuries. The products can be used on adults and children as from 3 years of age without any limitation whatsoever. As far as I am concerned, this is the only promising and at the same time, permissible measure against wart infection, for diabetics. Impatient persons may as well combine the care-based and protective second-

dary prophylaxes with conventional methods such as cryotherapy, caustic products or laser methods as long as tissue-destroying methods are allowed – this shall therefore not be applied on diabetics under any circumstance!

Esthetic Dermatology:

Are you not worried that you may be accused by other dermatologists of being too daring and overstepping your bounds with your recommendations?

A. Niederau

In the past, perhaps I was. Today, I am looking back at hundreds of successful treatments. Moreover, today too, the largest and most modern dermatological centers in Germany such as the Dermatologikum of Hamburg take advantage of the merits of these special products. I am very much in good company in this case. Scientists such as Prof. Reich from Hamburg and Prof. Pulz from Potsdam have already released a series of scientific publications on these highly interesting natural active agents. Proofs of the effects have been furnished not just through practical experiences but also through scientific surveys.

Today, I am proud – as a 'pioneer' of the early days – to be one of those, who were able to gather initial experiences with this active agent in practice already at the end of the year 2005 and also pass them over to colleagues in the sector. At that time, I requested 5 clients with comprehensive fungal infection of the nails to use the new nail-care products containing micro-algae for comparison with the customary pharmaceutical nail treatment on one foot. After three months, no single customer was prepared any longer to do without the micro-algae treatment on the other foot.

Esthetic Dermatology:

Dear Ms. Niederau, thank you very much for the interview!

Interview conducted by F. Höppner

Literature

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3. Prof. K. Reich: The cell-vitalizing and anti-microbial impacts of micro-algae, Esthetic Dermatology 1.2012
4. Prof. O. Pulz, P. Sandau: Investigations on the bio-active impacts of algae polysaccharide Ca-Spirulan from Arthrospira Platensis, OM&E 2010, No. 131