



ESLD session during Dubai Derma

"What is new in Lasers & Energy based Devices?"

- * Laser and Light based prevention and treatment of Radiation Dermatitis. Dr. Hans Laubach
- * Nail Psoriasis and Role of lasers. Mahmoud Abdel Rahim Abdallah, Egypt
- * Skin Of Colour and Laser: New Strategies. Paolo Bonan, Italy
- * Laser treatment of Acne Scars. Shady Aly, Egypt
- * Laser treatments in skin types V & VI. Mohamed Tome, Sudan
- * Laser Assisted hair removal, challenges and how to overcome. Eman Al Morsy, Egypt
- * Future developments of Laser applications in Dermatology. Ashraf Badawi, Canada

Laser and Light based prevention and treatment of Radiation Dermatitis

Dr. Hans Laubach



President of the European Society of Laser Dermatology

Radiation therapy is without a doubt a key component of the modern cancer therapy - it saves lives. However the acute and late side effects involving the skin are still impacting a large number of patients. The acute radiation dermatitis affects the patient during the radiation therapy. It can reach from a slight erythema (Grad I) up to skin necrosis and ulceration (Grad IV). Depending on the severity the radiation oncologist can be forced to interrupt or stop the radiation therapy. It remains therefore of great interest for the patient and for the therapist to actively search for measures to prevent the acute radiation dermatitis. This will not only increase the quality of life of the patient but might help to avoid the application of a suboptimal therapy regiment due to dermatological side effects. Several randomized, controlled clinical trials have shown the effectiveness of the daily topical application of potent (Class III) glucocorticosteroids in the prevention of acute radiation dermatitis if the treatment was started with the beginning of the radiation therapy. Furthermore a first promising result was presented recently regarding the prevention of acute radiation dermatitis with the use of the concept of low level light therapy/photobiomodulation. In how far the prevention of acute radiation dermatitis can as well prevent the appearance of chronic radiation dermatitis years after the radiation therapy remains unclear. However it is known that chronic radiation dermatitis is a debilitating skin disease that concerns up to 30% of the patients treated with radiation therapy.

These late toxic side effects, as the radiotherapist call this skin disease, are typically a mixture of dermal tissue fibrosis, epidermal and dermal atrophy, hyperpigmentation and telangiectatic changes. The cytokine profile within the area of chronic radiation dermatitis resembles that of a chronic wound with a high level of TGF-beta expression and highly activate myo-fibroblasts. The treatment of pathologically dilated vessels, e.g. telangiectasias, has been one of the mainstays of selective photothermolysis. Although very few publications support this intervention in the context of chronic radiation dermatitis it is commonly recognized within the laser specialist community as effective and rewarding for patient and the treating physician as well. In one of the few clinical trials the patient scored their satisfaction with the pulsed dye laser treatment of their chronic radiation dermatitis with a mean of 8 on a 10 grade scale. This correctly reflects the experience of most laser therapists. However these modern treatment possibilities of chronic radiation dermatitis are unfortunately not yet well recognized. Not only does the scientific community need more solid data on the efficacy of the laser treatment options but physicians should recognize the illness when present to help guide the patient to the best possible therapeutic option.

Role of laser in treatment of nail psoriasis

Mahmoud Abdallah



Associate Professor of Dermatology and Venereology
Faculty of Medicine
Ain Shams University

Nail psoriasis affects up to 55 % of psoriasis patients. Many treatments have been used in treatment of nail psoriasis with variable success rates. Good results could be reached with systemic therapies but the risks should be weighed against the benefits. Intralesional corticosteroids is associated with poor patient compliance and high complication rate. The results of topical treatment are unsatisfactory. Laser has been used for treatment of nail psoriasis. The results obtained with pulsed dye laser are encouraging. The treatment protocol should be adjusted according to the pattern of nail involvement. Nail matrix lesions seem to respond similar to nail bed lesions. Up to six sessions are needed to reach the desired effect. Further developments are still awaited to improve the efficacy of laser in treatment of nail psoriasis.

Skin of Color and Laser: New Strategies

Paolo Bonan



**Laser Dermosurgery Unit
Villa Donatello Clinic
University of Florence**

Racial genetics play a significant role in determining a patient's response to any skin laser treatment. Contrary to traditional skin classifications (the six Fitzpatrick types), the new genetic-racial classification takes into consideration the racial origins of patients rather than their skin colour alone. Indo-Pakistanis, Africans and Asians, Aborigines and Mulattoes patients have a higher tendency to develop hypo and above all post-inflammatory hyperpigmentation (PIH) than Europeans, Nordics and Mediterraneans.

The treatment of these candidates requires a management by expert hands, opportune instruments and proper parameters.

Nowadays the knowledge of the patient racial origin, and that one of parents and grandparents, should be always matched with a detailed "skin imaging report" to determine appropriate laser treatment modalities.

The authors illustrate, all the diagnostic and laser technical solutions that can facilitate treatment with laser systems, in particular CO₂ laser, in subjects of any skin colour minimizing the risk of side effects, such as PIH, keeping the same efficacy profile.

Effective laser treatment of post acne scars

Dr Shady Mahmoud, MD



BACKGROUND:

Atrophic scarring is often an unfortunate and permanent complication of acne vulgaris. It has high prevalence, significant impact on quality of life, and therapeutic challenge for dermatologists.

The treatment of atrophic acne scars varies depending on the types of acne scars and the limitations of the treatment modalities in their ability to improve scars. Therefore, many options are available for the treatment of acne scarring, including chemical peeling, dermabrasion, punch techniques, needling, subcision, and laser treatment and combined therapy.

Available lasers include traditional ablative lasers, such as carbon dioxide and erbium lasers, traditional non-ablative lasers, such as Nd:YAG, diode, alexandrite, pulsed dye lasers and intense pulse light, as well as both ablative, and non-ablative fractional laser systems.

CONCLUSION:

Providing a framework for understanding the various types of lasers available to treat acne scars and review the efficacy, safety, advantages of each laser type and combined options with laser.

Laser treatments in skin types V & VI

Dr. Mohammad Tome



**Associate professor of Dermatology
Ribat University Hospital-SUDAN**

Dark Skin types constitute a challenge in Laser treatment of the skin.

Many clinics and practitioners all over the world refuse to treat dark skin patients with lasers for fear of complications. On the other hand, being conservative with the laser parameters might be associated with lack of efficacy. In our practice for the last 7 years, we have been using long pulse Nd:YAG 1064nm laser in treating different skin disorders. The conditions we have been treating include acne scars, chicken pox scars, face rejuvenation, DPN and some other skin conditions as well. A short oral presentation will review the results we have achieved in treating various skin conditions in dark skin patients. The used techniques, parameters, challenges, possible side effects and precautions will be highlighted during the presentation.

Laser Assisted hair removal, challenges and how to overcome

Dr. Eman El Morsy, MD



Professor of Dermatology, Alexandria University, Egypt

Although Laser assisted hair reduction is one of the oldest and widest used laser applications in Dermatology, it is still a topic of great interest due to the fact that there is a growing market demand for it.

Analysis of the systems used in the market now, the difference between the Laser and IPL, the recent market trends as well as the realistic expectations and the problems faced were done and will be discussed in an oral presentation with suggested solutions for the common problems faced in our practice.

It is note worthy that many practitioners are getting some side effects like leukotrichia and paradoxical hair growth without realizing how important the laser parameters are to avoid such side effects some times.

The in depth understanding of the basic laser physics and laser tissue interactions as well as the appropriate selection of laser parameters according to the skin and hair type plays an important role in the success of this application.

Future Developments of Lasers

Ashraf Badawi, MD, PhD



**Assistant Professor of Dermatology, Laser Institute, Cairo University, Egypt
Visiting Professor of Dermatology and Laser applications, Szeged University,
Hungary
Laser Consultant, Canada
Vice President of the European Society for Laser Dermatology "ESLD"**

Lasers have been used in the Dermatology field for over 30 years now through which important milestones and developments were achieved.

There is a growing trend toward less invasive laser procedures associated with less complications and social down time but at the same time patients are looking for fast result.

Proper understanding of the fundamentals is mandatory to understand the present and future developments in the field of lasers.

The introduction of new lasers, new indications and new developments is frequently guided by marketing rather than real science.

Challenges and unmet expectations in different laser applications in Dermatology are the actual motivators for future developments in that field.

What do we expect in the coming years in the different laser applications in Dermatology?

The answer of the above will be presented in an oral presentation.