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Clinical Photodynamics

In Dermatology

An International Newsletter for PDT and FD in Clinical Practice

Editorial

Recently, several meetings have been held on the subjects of Dermatology and Venereology. For example, there has been an EADV meeting in Istanbul (see report in this issue of ***Clinical Photodynamics***) and a Nordic Congress of Dermatology and Venereology. At these meetings, PDT is a regular topic for presentations and posters.

Patient compliance is an important issue in treatment. Our experience tells us that if we prescribe courses of topical therapy to patients, we know that their compliance is likely to be limited. Therefore, I personally advocate the use of 'one-shot' treatments wherever possible, since patient compliance then ceases to be an issue. Dedicated studies to investigate patient compliance with therapies like 5-fluorouracil and imiquimod are necessary. Thus far, we have had to rely solely on clinical trials. In this respect, PDT, cryosurgery and excision surgery offer clear advantages.

Penile and vulval intraepithelial neoplasia (PIN and VIN) are exciting new areas where PDT may be used in special cases. When using PDT, mutilating surgery can be avoided. However, recurrence rates are high and patients must be followed up carefully.

The Swedish Society for Dermatology and Venereology has just adopted new therapeutic guidelines for tumour treatment in Sweden. The idea is to rely more heavily on evidence-based medicine when treating skin tumours. Recently, there has been much debate about whether actinic keratoses should be treated or not, but there is now overwhelming evidence that these precancerous lesions should be taken seriously.

With regard to advice about solar exposure, things seem to be slightly more complicated than before. There is some evidence that exposure to sunlight may decrease the risk of contracting certain non-skin tumours, such as lymphomas and colon cancer. This is probably due to the effects of vitamin D production: possibly, a small amount of UVB may actually be healthy. In everyday life, this is probably no problem, as most of us will be exposed to sufficient amounts of UVB, even if we adopt moderate sun protective measures. Of course, maximal vitamin D-producing sunlight is available at noon – perhaps it is now time for others, apart from mad dogs and Englishmen, to 'go out in the midday sun'??!!

We hope you will enjoy this issue of ***Clinical Photodynamics***, which also carries a report from the 2008 EURO-PDT meeting, held in Barcelona, as well as the report from the Spring EADV meeting.

Wishing you all a nice summer,

Ann-Marie Wennberg
Göteborg, Sweden

8th EURO-PDT Annual Congress

7-8 March, 2008, Barcelona, Spain

A combined report by:
Prof Ann-Marie Wennberg *Göteborg, Sweden* and
Dr Sigrid Karrer *Regensburg, Germany*

Over 200 EURO-PDT delegates gathered in Barcelona for a weekend that started out cold and cloudy but ended warm and sunny. They all were eager to share in the latest knowledge regarding research and clinical practice in the field of PDT. The busy two-day schedule included everything from how to set up a PDT unit to new developments and PDT beyond non-melanoma skin cancer (NMSC).

Also in this Issue

Speakers from all over Europe had been invited and the welcome address was given by the President of EURO-PDT, **Prof Lasse Braathen** (Bern, Switzerland) in conjunction with the local Congress President, **Dr Alejandro Camps-Fresneda** (Barcelona, Spain).

In the 'New Developments' section, **Prof Rolf-Markus Szeimies** (Regensburg, Germany) gave an overview of the state of sensitisers in 2008. He noted that methyl aminolevulinate (MAL; Metvix®) is well established in Europe and is registered for use in actinic keratosis (AK), squamous cell carcinoma (SCC) in situ, and superficial and nodular basal cell carcinomas (BCC). He also spoke about some new ALA-based formulations that are currently under investigation in phase II/III clinical trials. In the next few years, clinicians can expect to see the introduction of innovations such as ALA-containing patches and an ALA nanocolloid formulation.

Dr Alexis Sidoroff (Innsbruck, Austria) talked about different light sources, such as coherent and incoherent light. It is of great importance that an adequate light penetration is achieved and this is why the light sources usually used in Europe emit in the red spectrum in order not to 'undertreat' NMSC. Dr Sidoroff observed that light-emitting textile fibres could provide an interesting option for use in the future and also discussed the usefulness of light sources that combine the possibility of fluorescence diagnosis as well as treatment.

In the 'PDT in NMSC' session, **Prof Braathen** began by highlighting key aspects of the evidence-based guidelines, published in the *Journal of the American Academy of Dermatology* in 2007[1]. The ever-growing number of organ transplant recipients has created a pool of patients who require long-term immunosuppression, a consequence of which is a greater propensity to develop cancers, especially aggressive skin tumours. He emphasised the need for special PDT units for organ transplant patients: these have already been established in centres such as Bern and Göteborg, along with many other hospitals in Europe, and he also discussed the importance of giving these patients adequate treatment.

Dr Piergiacomo Calzavara-Pinton (Brescia, Italy) considered the use of PDT in cutaneous lymphomas. He and his group have treated five patients with mycosis fungoides (MF). PDT was performed once-weekly until clearance of the lesion and a complete remission was seen in four of the patients, with no recurrence during a follow-up period of 12 to 34 months. A similar Swedish study at the Karolinska Hospital by Dr Desiree Wiegleb Edstrom and colleagues has also shown response to PDT in MF patients with thin lesions.

Sagrada Familia, Barcelona.

Dr Sandra Campbell (Truro, UK) examined the enhancement of PDT in NMSC via chelation, using an iron-chelating agent to temporarily increase PpIX accumulation. She spoke about the successful studies she and her group have made so far and said that they will develop this in the future.

The 'New Horizons' session began with **Dr Colin Morton** (Stirling, UK), who explored the possibilities for developing guidelines for emerging indications. He said that he and co-workers in the British Photodermatology Group are currently updating the British Guidelines on topical PDT. There are a few studies on PDT and PIN/VIN and extra-mammary Paget's disease. Despite the small numbers of patients in these studies, the results are somewhat encouraging. There is a need for more studies in these areas.

Dr Stine Wiegell (Copenhagen, Denmark) gave a talk entitled 'Back to the roots of PDT – sunlight as a potential light source' in which she presented two Danish studies of daylight-mediated PDT, a technique which replaces the use of an artificial light source with a period of exposure to direct sunlight. The technique is somewhat uncontrolled, of course. In the studies, patients with actinic keratosis on their face and scalp were treated with PDT in two symmetrical areas. In one study, MAL-PDT was compared to daylight PDT and in the other study different concentrations of MAL (8% and 16%) were compared using daylight-PDT. The results showed no difference in effectiveness between ordinary PDT and daylight PDT. A follow-up period of three months showed a cure rate of 79% in both studies. There was no statistical difference between the two MAL concentrations. Daylight PDT appeared to be less painful.

In the 'PDT beyond NMSC' session, there

View of Barcelona from the rooftop swimming pool of the Congress venue: Hotel AC, Barcelona.

were talks on PDT in photorejuvenation by clinicians from Sao Paolo and Madrid. There are many published studies that show the efficacy of PDT on AKs and also to some extent on the improvement of fine lines and skin texture. PDT has been used for photorejuvenation in Brazil for the past two years. **Dr Ruiz-Rodriguez** (Madrid, Spain) presented a randomised, prospective, blinded, controlled, split-face comparative study which showed that MAL-PDT using red light could improve fine lines.

There were also presentations on the use of PDT in HPV-induced lesions and in rosacea. **Dr Lars Erik Bryld** (Roskilde, Sweden) discussed the positive experience the unit has had in treating rosacea with PDT. He showed their results from a study of 28 patients, of whom 19 had an excellent outcome, five patients showed a fair response and four patients still had a poor response to treatment after a 3-month follow-up.

In the 'ALA vs. MAL' session, **Dr Paul Collins** (Dublin, Ireland) presented a study on biopsy-proven SCC in situ, comparing the effect and adverse events of ALA and MAL-PDT. The patients were randomised to receive either ALA for five hours or MAL for three hours, followed by illumination with a Waldmann lamp. A total of 41 patients with 54 SCC in situ were treated with PDT twice during weeks 0 and 6, with a follow-up after 10 weeks. The study was blinded for both the patient and the investigator. The authors concluded that both ALA and MAL were effective and well tolerated. In this study, ALA was as effective as MAL in treating SCC in situ. ALA is not currently commercially available in Europe.

In the session on 'PDT and Pain', **Dr Sally Ibbotson** (Dundee, UK) gave a thorough overview of the status of PDT pain management. She said that larger lesions, male sex, head and face sites and actinic keratosis are factors that seem to be associated with more pain. MAL appears to be less associated with pain than ALA. Other factors that have to be considered are the irradiation method and the emission spectrum. Topical local anaesthetics do not seem to work, but nerve blocks have been proven to be effective. **Dr C. Guillen Barona** (Valencia, Spain) presented results from a trial of 20 patients, showing that nerve blocks work well. This finding is also supported in a study by Paoli and colleagues, which has been accepted for publication in *Clinical and Experimental Dermatology*[2].

POSTER PRESENTATIONS

A total of 26 posters were presented at the Congress. The posters covered all fields of PDT, including clinical studies, new indications for PDT and experimental studies. The organisers of the Congress also exhibited excellent photographs of their clinical results with PDT of various skin diseases.

A jury of three eminent PDT judges (**Dr Colin Morton**, **Dr Hans Christian Wulf** and **Prof Ann-Marie Wennberg**) were assigned to choose the best contributions. Six poster awards were offered for the best posters. They were divided into two categories: 'Clinical' and 'Experimental'.

Best Poster Presentations: *Clinical:*

1. **Zane C** and **Calzavara-Pinton P** (Department of Dermatology, University of Brescia, Italy) won the first prize for their poster, **'MAL-PDT of in situ, microinvasive and invasive squamous cell carcinoma'**. The authors treated 112 patients with SCC (superficial, well-differentiated) with MAL-PDT (two sessions, one week apart). The overall complete response rate was 73.2% at three months and 53.6% at two years. The mean time to recurrence was 6.55±4.1 months. Cosmetic outcome was good. The authors concluded that MAL-PDT may represent a valuable, effective and well tolerated treatment option for superficial, well-differentiated in situ SCC.

2. **Babilas P, Landthaler M** and **Szeimies RM** (Regensburg, Germany) won the second prize for their poster, **'Comparison of five different red light sources for topical PDT of AK in controlled split-face studies regarding efficacy, painfulness,**

patient satisfaction, and cosmesis'. The authors compared five different red light sources, in three groups, as follows:

1. Incoherent lamp: PDT1200L® (Waldmann Medizintechnik) **versus** an LED system: Omnilux® (PhotoTherapeutics Ltd)
2. Incoherent lamp: PDT1200L® (Waldmann Medizintechnik) **versus** another LED system: LEDA® (WaveLight AG)
3. LED System: Aktilite® (Galderma) **versus** a variable pulsed light (VPL) source: Energist Ultra VPL® (Energist Ltd)

They were tested with topical ALA- or MAL-PDT in 82 patients with 953 AKs in a controlled split-face study. In all groups, there was no significant difference between the compared light sources regarding the infiltration and keratoses score, measured three months after PDT. Pain was significantly lower only during and after VPL irradiation, compared to LED irradiation using the Aktilite®. No difference regarding pain was found in the other two groups. These results prove the efficacy of the three different LED systems and VPL for topical PDT of AK. The yielded remission rates and cosmetic results were not inferior as compared to standard treatment regimens.

3. **Kotimäki J** (Turku, Finland) was awarded the third prize for his poster, **'PDT of basal cell carcinoma of the eyelid'**. He recorded his experiences with the use of PDT for BCC of the lower eyelid in five consecutive patients. In these patients, PDT led to an excellent cosmetic and functional result and was well tolerated by the patients.

Experimental:

There was a tie for first place in this category. Joint first prize went to: **Togsverd-Bo K** (Copenhagen, Denmark) for his interesting and important poster, **'PDT with MAL and HAL equally delays UV photocarcinogenesis in hairless mice'**. In this study, UV photocarcinogenesis in hairless mice after PDT using either MAL or hexyl aminolevulinate (HAL) was investigated. It has been suggested that HAL penetrates deeper into the dermis, due to its more lipophilic properties. Hairless mice were irradiated with solar UV three times a week until tumour development. At days 45 and 90, selected groups were treated with PDT using either HAL (2-20% HAL-cream) or MAL (20% MAL-cream). The time to first tumour was significantly longer for PDT groups than in mice only exposed to UV without PDT. Thus, HAL- and MAL-PDT were equally effective in preventing UV-induced tumours in hairless mice.

The other joint first prize went to: **Sandberg C, Halldin CB, Ericson MB, Larkö O, Krogstad AL** and **Wennberg AM** (Göteborg, Sweden) for their poster, **'Bioavailability of ALA and MAL in BCC – a perfusion study using microdialysis in vivo'**. In their study, the authors used a novel microdialysis technique to investigate the transdermal penetration of ALA and MAL in BCC in vivo. Twenty patients with 27 BCCs were randomly treated with MAL or ALA and curettage was also performed at random. Microdialysis catheters were inserted into the tumours at depths of 0.4mm and 1.9mm in the lesion. Dialysates were collected for four hours and the interstitial concentrations of MAL and ALA were determined using HPLC. No significant difference in interstitial drug concentration was observed between lesions treated with ALA or MAL. Detectable levels of drug were not obtained in almost 50% of the lesions where the catheters were situated between 1.0-1.9mm into the lesion. Curettage was not found to affect the interstitial concentration.

Third prize was awarded to: **Rapozzi V, Drioli S, Bonora GM** and **Xodo LE** (Udine, Italy), who presented a poster on **'Photodynamic activity of Pheophorbide from *Scutellaria barbata* as a free molecule and conjugated to polyethylene glycol'.** They evaluated the PDT effect of a novel photosensitiser pheophorbide a (Pba), an active compound isolated from *Scutellaria barbata*. Following irradiation of two cell lines (HeLa and HepG2) in the presence of Pba, the cells exhibited membrane blebbing and DNA fragmentation. To improve the photosensitiser's pharmacokinetic behaviour, Pba was conjugated to polyethylene glycol. The mechanisms of action of the free and conjugated porphyrins are being further investigated by the authors.

Several other interesting posters were also presented:

Posters on PDT of skin cancer:

Szeimies RM *et al* (Regensburg, Germany) presented a prospective, multicentre, controlled clinical study comparing the efficacy and cosmetic outcome of MAL-PDT with surgery for superficial BCC over a one-year period. A total of 196 patients received either two sessions of MAL-PDT, seven days apart, repeated three months later in case of incomplete response, or elliptical simple excision surgery. At three months, 92.2% of BCCs were cleared with PDT and 99.2% had cleared with surgery. At 12 months, 9.3% of lesions recurred with PDT and none with surgery. Cosmetic outcome was significantly better after MAL-PDT and improved with time, contrary to surgery. The authors concluded that MAL-PDT offers the advantage of a much better cosmetic outcome than surgery in sBCC.

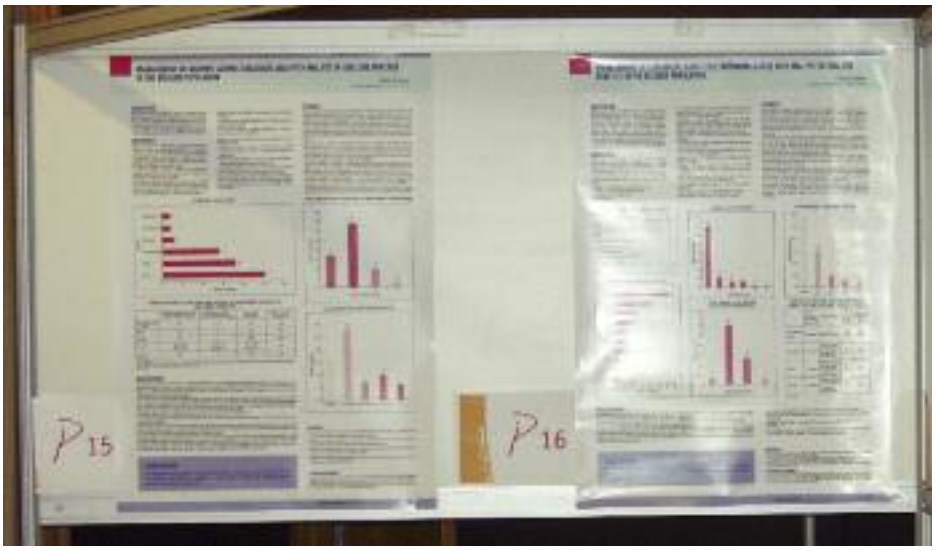
Barona CG *et al* (Magdeburg, Germany) treated 30 patients with superficial BCC with two sessions of MAL-PDT, repeated three months later if there was an incomplete clinical result. The complete response rate at three months was 97.1%, with a recurrence rate of 14.3% after 12 months of follow-up. Cosmetic results were excellent in all patients.

Fernández-Guarino M *et al* (Madrid, Spain) treated 57 patients with multiple AK with MAL-PDT, evaluating the difference between locations. They demonstrated that the best results could be achieved on the face, compared with the scalp or hands.

Mørk C and Helsing P (Bergen, Norway) presented their results in the treatment of multiple precancerous lesions and skin cancer (BCC, SCC, Bowen's disease) with MAL-PDT as a non-surgical alternative in 23 patients after organ transplantation. The results of this study confirmed the usefulness of MAL-PDT in the treatment of multifocal tumours in organ transplant patients, although assessment of long-term efficacy in larger clinical trials is still needed.

Hauschild A and **Ortland C** (Kiel, Germany) performed a randomised, observer-blinded, dose-finding fluorescence diagnosis study with the novel self-adhesive ALA-containing patch, AlaCare®, a skin-coloured, square, self-adhesive patch with an integrated light protection of 4cm^2 size which contains 8mg ALA. The patch was applied without prior curettage to 140 patients with AKs for 30 minutes, one hour, two hours or four hours prior to irradiation with the Aktilite® (37J/cm^2). Clinical efficacy increased with extended application time (four hours: 86% CR, two hours: 73% CR, one hour: 72% CR, 30 minutes: 51% CR). Patients with clearance of their lesions seemed to experience local reactions to a greater extent than patients without clearance.

In a prospective, observational study in real-life practice in Belgium, 64 patients with more than 10 AKs on the face or scalp were treated



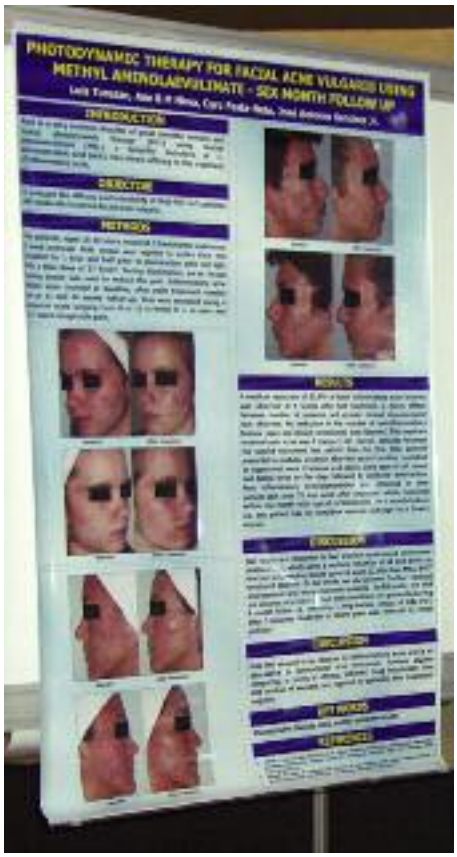
with MAL-PDT (**Rives V** and **Sarkany M** [Paris, France]). The mean number of visits to the dermatologist was 3.7 per patient. The mean number of PDT sessions was 1.98. The average cumulative amount of MAL was 2.35g for the total treatment. No serious adverse events occurred; only one patient had to stop treatment during illumination. Complete response rate was 74% after six months, with cosmetic outcome rated as excellent or good in 79% of patients. The same authors also presented their results in real-life practice in Belgian patients with superficial BCC. Analysis of 99 BCC patients showed that patients visited their dermatologist 4.3 times on average and received a mean number of 2.28 MAL-PDT sessions. The average cumulative amount of MAL used for the complete treatment was 1.32g. Complete response rate was 84% six months after PDT, and cosmetic outcome was excellent or good in 93% of the patients.

Rosen RH and **Viret P** (Kogarah, Australia) made a side-by-side comparison between MAL-PDT and **imiquimod** in two patients with diffuse forehead **solar keratoses**. Although both modalities were effective in clearing AKs, MAL-PDT was shown to be more convenient and resulted in fewer side-effects than imiquimod.

Other indications for PDT:

Several case reports presented also showed the potential of PDT for the treatment of non-oncologic skin diseases. **Bakos L** *et al* (Porto Alegre, Brazil) reported on a patient with pemphigus vulgaris and a persistent neck ulceration, which cleared only when MAL-PDT was added. The same group also presented their positive results in the treatment of necrobiosis lipoidica.

Photodynamic skin rejuvenation is a relatively new concept which aims to induce dermal remodelling and improve signs of skin ageing such as erythema, teleangiectasia, lentigines and fine and moderate rhytides. **Redondo P** *et al* (Pamplona, Spain) treated three patients with numerous AKs in the face with MAL-PDT. In addition to disappearance of the tumours, the treated areas also underwent an intense cutaneous rejuvenation, with disappearance of previous teleangiectasias. The authors suggest that one of the PDT targets could be the vascular tissue, which would help to explain the resurfacing effects seen.



Torezan L *et al* (São Paulo, Brazil) evaluated the efficacy and tolerability of MAL-PDT in five patients with moderate to severe facial acne vulgaris. Four weeks after three sessions of MAL-PDT (four weeks apart), there was a median reduction of 60.4% of inflammatory acne lesions. A direct effect between number of sessions and greater clinical improvement was observed. Post-inflammatory hyperpigmentation was temporarily observed in one patient with skin type IV. The clinical results included six months of follow-up. ■

References

1. Braathen L *et al* 2007 *J Am Acad Dermatol* **56** 125-143
2. Paoli J *et al* 2008 *Clin Exp Dermatol* In Press

5th European Academy of Dermatology and Venereology (EADV) Spring Symposium

22-25 May, 2008 Istanbul, Turkey

by: Dr Colin Morton
Stirling, Scotland

Haghia Sophia, Istanbul.

The expanding evidence base for the use of PDT in Dermatology was the topic for a half-day symposium on PDT, held as part of the Istanbul EADV Meeting. Prof Lasse Braathen (Bern, Switzerland) reviewed the international guidelines on PDT. He also discussed the importance of recognising the challenge of field cancerisation and the opportunity for PDT, as an area-wide therapy, able to treat visible as well as subclinical disease.

Prof Axel Hauschild (Kiel, Germany), updated us on the evidence for PDT in actinic keratosis (AK). In addition to the strong evidence for its efficacy in thin and moderate thickness AK using MAL (Metvix®) and ALA-PDT, Prof Hauschild presented results on the use, in AK, of a novel formulation of ALA called AlaCare®, a thin, self-adhesive patch. The patch is directly applied to the skin without previous lesion preparation required. Two prospective randomised clinical trials with a total of 449 AK patients, each with up to 8 mild to moderate lesions, have now been completed. After 12 weeks, the clinical clearance rate for the 2357 lesions treated ranged between 82-89%, compared to cryosurgery, which cleared 77%, and placebo, with 19%. PDT using the novel patch was therefore significantly superior to both placebo and cryosurgery. This provides the opportunity for an additional method of delivering PDT, with the potential of home application of patches discussed by Prof Hauschild.

I presented an update on PDT for Bowen's disease, confirming its high efficacy in this indication. Case reports and series point to particular benefits from choosing PDT for the treatment of lesions at unusual sites, including digits and perioral. Given the limitations of existing therapies, PDT may also have a place in the treatment of penile intraepithelial neoplasia/erythroplasia of Queyrat.

Prof Ann-Marie Wennberg (Göteberg, Sweden) updated us on the use of PDT for both penile and vulval intraepithelial neoplasia (VIN). PDT appears to be a reasonable option, given its tissue-preserving capability, with a few cases of sustained clearance. Pain can be a significant issue when using PDT for these indications and penile or spinal nerve blocks (for VIN) have been used with success. **Dr M Martinez** (Madrid, Spain) reported by poster on her experience of treating a patient with extramammary Paget's disease of the scrotum using topical PDT. Five sessions of PDT were employed, which achieved reduction in size of the lesion prior to surgery.

Dr Nadeem Jenjua (Copenhagen, Denmark) reviewed experience of PDT for acne and rosacea. Although the efficacy of PDT in acne has been widely demonstrated, pain and downtime following therapy remain significant issues and further work to improve on the protocol is required. Although a retrospective study suggested the potential of PDT in rosacea, a recent prospective study from Copenhagen has indicated that PDT only has a limited effect.

Dr N Konnikov (Boston, USA) presented a study in poster format assessing the impact of previous PDT on subsequent development of basal cell carcinoma (BCC) and squamous cell carcinoma (SCC). She identified 29 patients who had undergone a single treatment and took account of patients' risk factors for non-melanoma skin cancer (NMSC). A significant reduction in the subsequent incidence of BCC, but not SCC, was noted. Although a small and retrospective study, it offers additional support for the potential preventive effect of PDT for NMSC.

Dr O Macedo (São Paulo, Brazil) presented the Brazilian experience with PDT use in photo-rejuvenation, using MAL-PDT and red LED light. Ten patients with AK and mild to severe photodamage were enrolled. MAL was applied to lesions for three hours and, for a further hour, MAL was applied to the entire face. A significant reduction in AK was reported with improvement also in facial roughness, mottled hyperpigmentation and fine lines. A further poster from South America observed clearance of 96% of NMSC lesions (predominantly AK) within two PDT treatments (**Dr Maria Orlandi**, Santiago, Chile).

Following on from the randomised comparison of ALA-PDT in alopecia areata by Dr Robert Bissonnette published a few years ago, **Dr M Fernandez-Guarino** (Madrid, Spain) has further confirmed, unfortunately, the failure of PDT in alopecia areata, this time using MAL-PDT delivered monthly. None of the patients achieved satisfactory results, despite an average of eight months' treatment. **Dr Luca Conocchiari** (Ancona, Italy) reported on the use of MAL-PDT in a patient with annular granuloma, with marked benefit after two sessions with MAL-PDT. However, six MAL-PDT treatments did not improve the clinical appearance of necrobiosis lipoidica in a further patient.

Given the relatively small size of the Spring EADV Meeting, I was encouraged by the number of posters and presentations related to PDT, as well as a large attendance at the PDT symposium, suggesting a considerable interest across Europe and beyond in gaining further knowledge of its potential in dermatological practice. ■

PDT In Dermatology: Where Are We Now?

In the previous issue of ***Clinical Photodynamics***, seven eminent PDT specialists from around the world described the state of PDT usage in their country. We also invited other physicians to submit their own reports and we have received the following report on PDT in Portugal. Again, we invite further reports from countries/regions not already covered by this series: please contact the editorial office at: **eurocommunica@compuserve.com**

PDT in Portugal

by: Dr Celeste Brito
Consultant Dermatologist
Braga, Portugal

What is the current level of use of PDT in dermatological practice in your region?

The Dermatological Department of the Hospital of São Marcos in Braga, in the northern part of Portugal, was the first institution to introduce topical PDT in July, 2003. Today, seven more Portuguese institutions use PDT for the treatment of non-melanoma skin cancer (NMSC). In July 2006, our Department was recognised as a Centre of Excellence in PDT by EURO-PDT.

When we began using PDT, the importation of Methyl Aminolevulinate (MAL: Metvix®) was specifically licensed by INFARMED, the Portuguese National Institute for the Regulation of Drugs. The authorisation limited its use to oncological treatment in the hospital setting only and, from 2005, INFARMED has authorised the use of MAL-PDT for the treatment of NMSC.

The illumination system used for PDT in Braga and other centres in Portugal is the 630nm wavelength LED, Aktilite®, developed for use with MAL. The NMSC patients are treated without personal cost at public hospitals in Portugal.

The effective use of PDT depends upon the availability of specifically trained medical personnel. To this effect, our department runs an annual 6-hour training workshop on the application of PDT, which is in line with the PDT guidelines.

Where is PDT having its greatest impact in clinical practice and how might other regions learn from your example?

The greatest impact of PDT has been on the treatment of large and multiple NMSC, with a predominance of superficial basal cell carcinoma (BCC), and in sensitive areas

(face and scalp). The therapy is efficient, safe, has minimal side-effects and high cure rates. Furthermore, it yields excellent cosmetic results in comparison with the traditional surgery that quite often leaves undesirable scars.

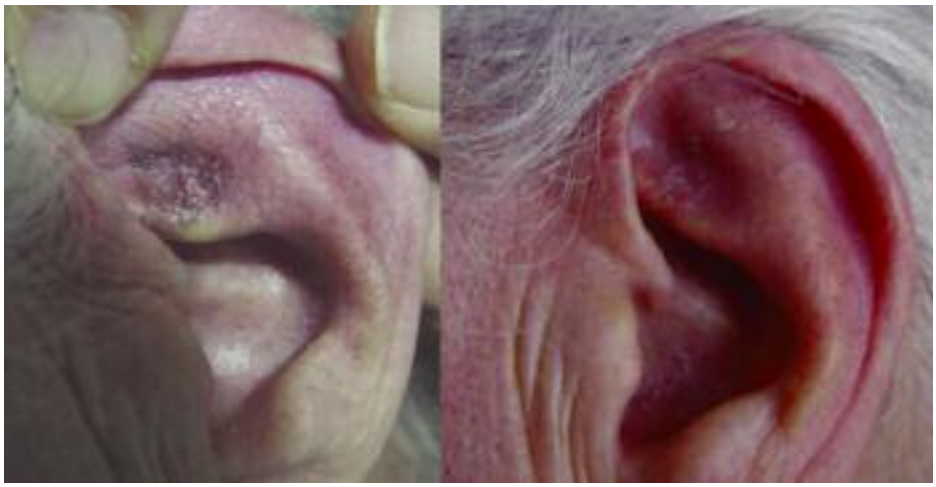
My Department contributed to setting the highest standards of PDT in Portugal, by only allowing experienced dermatologists to apply the technique. This policy follows strictly the recommendations for the use of PDT in oncology.

Attendance at the EURO-PDT certified training programmes (workshops) that are being organised on an annual basis is a good way of making other colleagues aware of the latest developments in PDT. The workshops are organised in various dermatological centres all over the country. The 2008 workshop is taking place in Oporto, and I will be there as an invited PDT specialist.

What are the barriers to wider use? How might these be resolved?

The three major barriers to the more widespread use of PDT are: the availability of dermatologists with experience in PDT; the relatively high cost of Metvix®; and the psychological reaction of the patients to the pain.

The scarcity of specialists is being progressively overcome through our series of annual workshops, which are well-attended. The cost of Metvix® itself is not really a serious problem, as it is fully supported by the Portuguese National Health Service and therefore does not stop patient access to PDT. Thirdly, the patients are fully informed of the pain issues associated with PDT; specific leaflets explain how the technique works and how the patients must relax during the illumination phase. Furthermore, particularly when treating large areas, when pain may become a problem, adequate pain treatment protocols are used. During the treatment sessions, a nurse is continually by the patient's side, helping him/her to tolerate the treatment, and music is also played to aid relaxation.

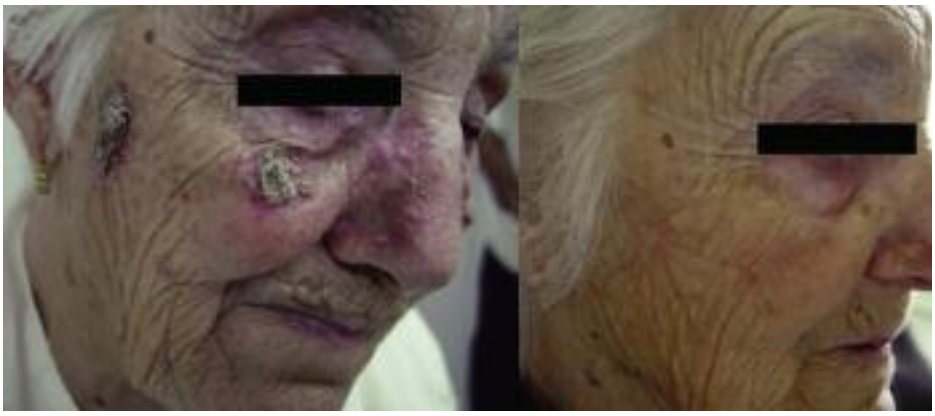


sBCC before MAL-PDT and 6 months after MAL-PDT treatment.

Where do you hope to see PDT in routine use in the next few years?

Although PDT should become routinely used for NMSC in the very near future, I feel that it is also important to maintain the high standards currently being enforced, of which I am very proud. In particular, I think that it is essential that dermatologists should be the only physicians allowed to treat oncological lesions using PDT. No-one is better placed than a PDT-trained dermatologist to recognise the various NMSC lesions and decide which ones should be treated this way and avoid the potential pitfalls, for example the photodamage associated with NMSC.

The consistent and continued enforcement of the PDT guidelines will help healthcare professionals to identify the optimal indications for treatment with PDT, in conjunction with the mandatory five-year follow-up of the lesions that will guarantee their non-recurrence. ■



AK before MAL-PDT and 24 months after MAL-PDT treatment.

Calendar of Events 2008-2009

August 8-12, Quito, Ecuador
XVII Congreso Iberoamericano de Dermatologia
Contact: Meeting Secretariat
e-mail: cilad@coordinamos.com

September 17-21, Paris, France
EADV 2008 – 17th Annual Congress of the European Academy of Dermatology and Venereology
Contact: EADV 2008/MCI
Tel: +33 153 858 270 Fax: +33 153 858 283
e-mail: info@eadvparis2008.com
URL: www.eadvparis2008.com

October 7-11, Brixen/Bressanone, Italy
7th International Symposium on PDT and Photodiagnosis in Clinical Practice
Contact: Prof G Jori
Tel: +39 049 827 6333 Fax: +39 039 827 6344
e-mail: giulio.jori@unipd.it
or Prof H Kostron
Tel: +43 512 504 27278 Fax: +43 512 504 27460
e-mail: herwig.kostron@uibk.ac.at
URL: www.bio.unipd.it/PDT2008

December 12-14, Athens, Greece
13th COSMODERM – Joint Meeting of ESCAD/Hellenic Society of Dermatology and Venereology
Contact: Penelope Mitroyianni
Tel: +30 2 107 257 693 Fax: +30 2 107 257 532
e-mail: info@erasmus.gr

2009

February 18-20, Rio de Janeiro, Brazil
International Academy of Cosmetic Dermatology (IACD) Meeting
Contact: Meeting Secretariat
e-mail: iacd@dermato.med.br

March 6-10, San Francisco, USA
67th Annual Meeting of the American Academy of Dermatology (AAD)
Contact: AAD Secretariat
Tel: +1 202 842 3555 Fax: +1 202 842 4355

March 13-14, Noordwijk, The Netherlands
9th EURO-PDT Annual Congress
Contact: EURO-PDT 2009 Congress Secretariat
Tel: +33 (0)1 46 43 33 42 Fax: +33 (0)1 46 24 88 38
e-mail: europdt2009@vista-fr.com

April 23-26, Bucharest, Romania
6th Spring Meeting of the European Academy of Dermatology and Venereology (EADV)
Contact: EADV Office
Tel: +322 650 0090 Fax: +322 650 0098
e-mail: office@eadv.org

May 3-6, Tel Aviv, Israel
12th World Congress on Cancer of the Skin (WCCS)
Contact: WCCS Meeting Organiser
Tel: +41 229 080 488 Fax: +41 227 322 850
e-mail: wccs2009@kenes.com

May 20-24, Prague, Czech Republic
10th International Congress on Dermatology (ICD)
Contact: ICD 2009 Meeting Organiser
Tel: +420 266 082 359 Fax: +420 266 082 350
e-mail: president@icd2009.com

June 6-11, Seattle, USA
12th World Congress of the International Photodynamic Association (IPA)
Contact: David Kessel
Tel: +1 313 577 1766 Fax: +1 313 577 6739
e-mail: dhkessel@med.wayne.edu

September 10-12, Budapest, Hungary
39th Annual Meeting of the European Society for Dermatological Research (ESDR)
Contact: ESDR Secretariat
Tel: +41 22 321 4890 Fax: +41 22 321 4892
e-mail: office@eadv.org

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