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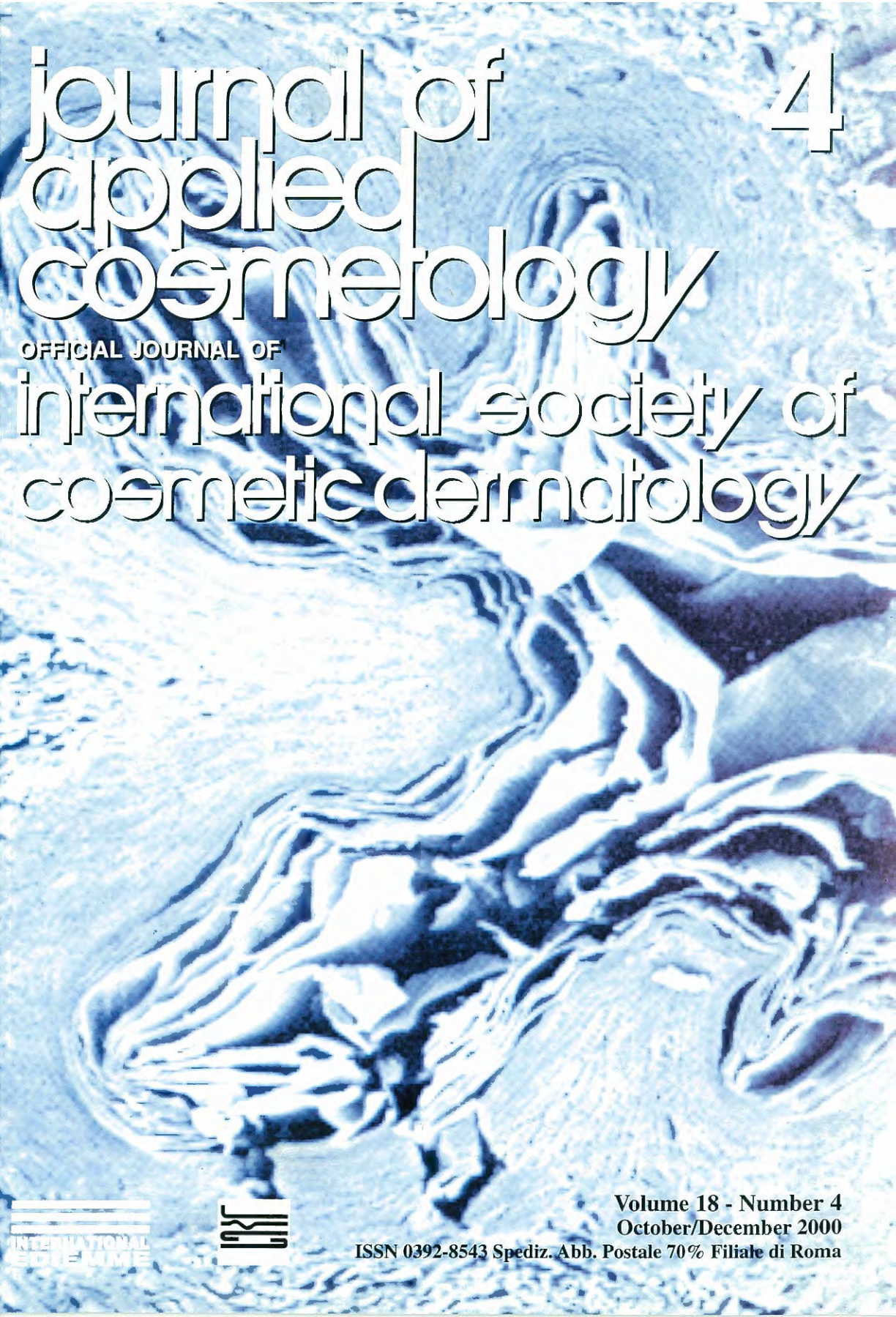

Volume 18 - Number 4
October/December 2000
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ACROMOS PLUS with vitamin C

The scientific approach to [AGE-SPOTS] (1-4)

UNA SOLUZIONE [chiara] per le iperpigmentazioni (1-4

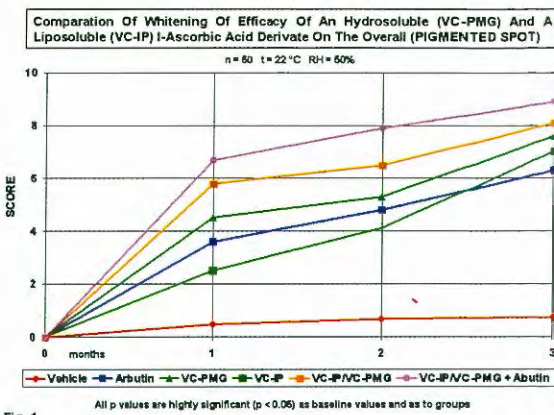

Fig. 1

MODO D'USO

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REFERENCES - BIBLIOGRAFIA

1) MATOBA O., HASC, MOTOS, KOHATA Y., et al (1999), A new lipofhilic l-ascorbic acid derivative, the synthesis, physical property and dermatological efficacy. Proceedings of 4th scientifica Conference of the Asian Societes of Cosmetic Scientists, Bali, Indonesia, 7-8 April, 1999.
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3) P. MORGANTI, FABRIZI G., MORGANTI G. (1999), an innovative cosmeceutical with a skin lwhitening activity, Presented at the 4th International symposium on Cosmetic Efficacy, New York, May 10-12. In print on J. Appl. Cosmetol.
4) MORGANTI P., FABRIZI G., MORGANTI G., (1999) A new cosmeceutical with a skin lightening activity: Second note, The combining whitening activity of hidrosoluble and liposoluble vitamin C derivatives.
Presented at the E.A.D.V.-Congress, September 29-October 3, 1999 (Fig. 1)

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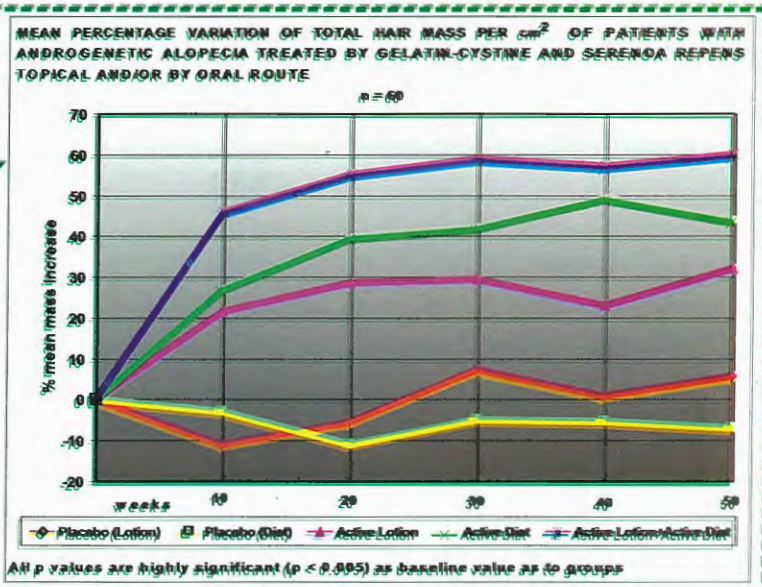
Clinical studies established efficacy with mild to moderate hair loss in the frontal - parietal scalp[1]

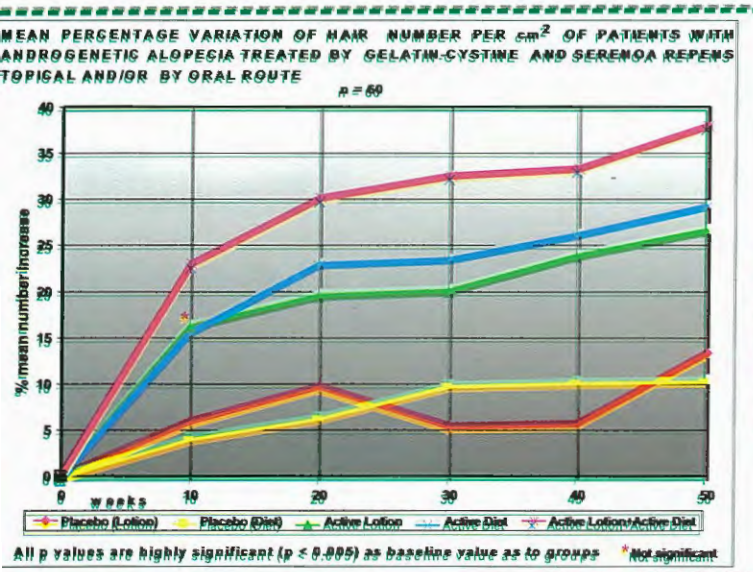
ncreases mass and numbers of hair in a short period[1]

BIOESSE

60%

increase in hair mass





38%

increase in hair number

NO SIDE EFFECT WAS RECORDED

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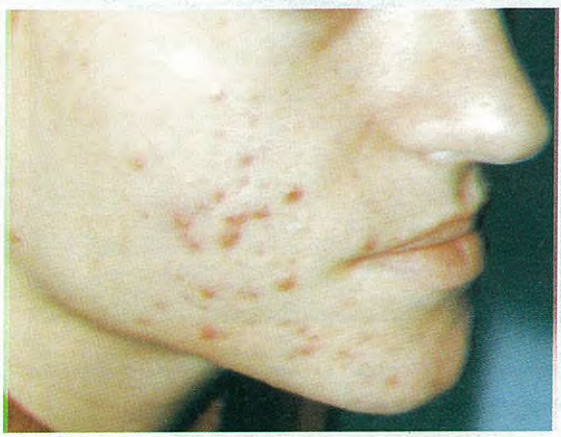
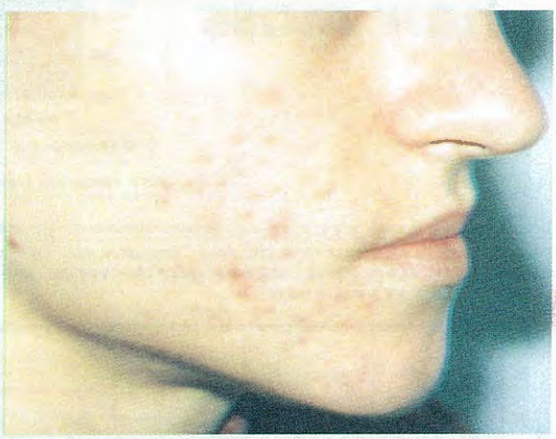


PRE-TREATMENT



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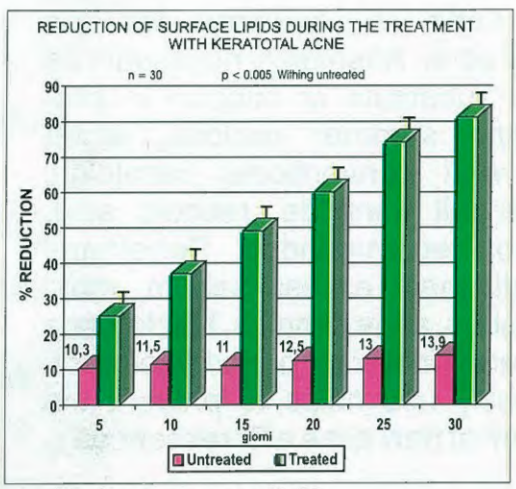
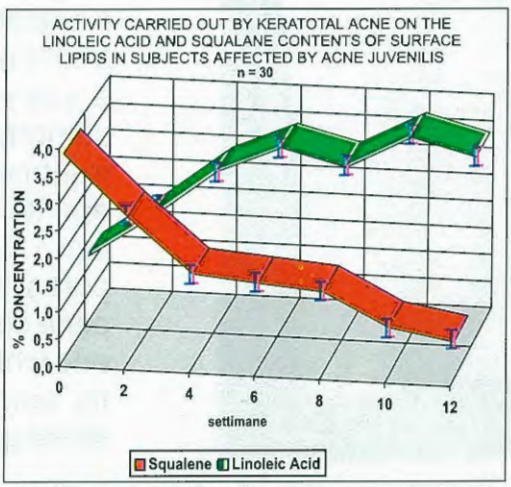


⇒ *Reduces excess lipids*



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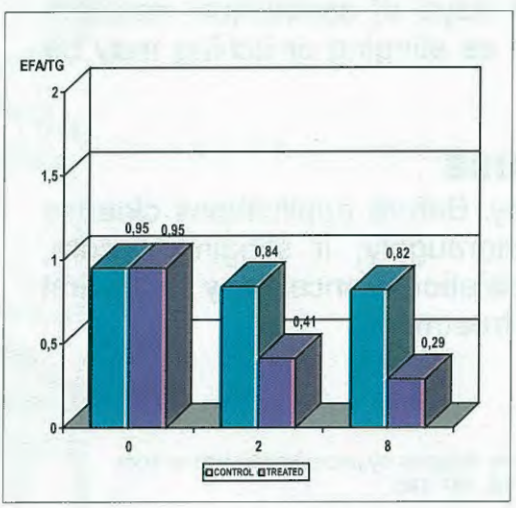

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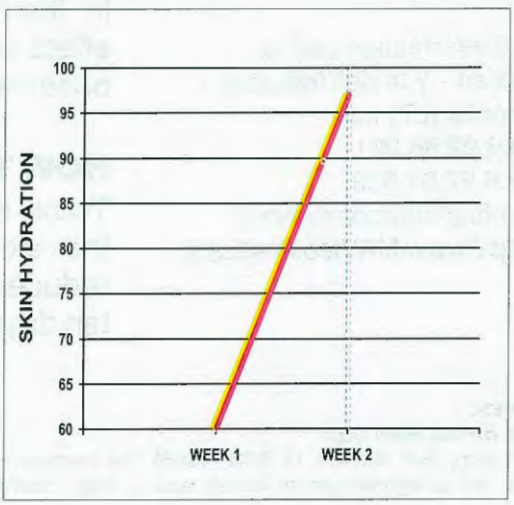

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ADVERSE REACTIONS

In the first days of application transient effect such as stinging or itching may be observed

HOW TO USE

Twice a day. Before applications cleanse the skin thoroughly; if stinging occurs, reduce application to once a day for the first ten days of treatment

REFERENCES:
1,2 - ***Data on file Mavi Sud***
3 - **M. Ghiczy, H.P. Nissen, H. Biltz (1996)** The treatment of Acne Vulgaris by phosphatidilcholine from Soybeans, with a high content of linoleic acid. *J. Appl. Cosmetol.* **14,** 137-145

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Trimestrale di Dermatologia Cosmetologica
Quarterly Review of Cosmetic Dermatology
Contents

J. Appl. Cosmetol. **18,** 155-165 (October/December 2000)

SCAR REDUCTION BY A COMBINATION OF MANUAL AND ULTRASHALL THERAPY

H. Hakze* and H.A.M. Neumann, MD, PhD**

* National Institute for Skin Improvement, Amersfoort (The Netherlands)

** University Hospital – Department of Dermatology, Maastricht (The Netherlands)

Received: *April 2000.*

Key words: *scar treatment, manual therapy, ultrashall.*

Summary

Various attempts have been made to treat or ameliorate hypertrophic scars once they have developed. However, none of those attempts have proven to be effective until now.

We investigate in a randomized, prospective observer blinded trial the clinical outcome and satisfaction of patients with hypertrophic scars. We used a traction massage technique during a 6-week period, treatment twice a week. Before the massage we applied ultrashall treatment. The control group was not treated. A significant improvement could be observed.

The study shows that traction massage technique in combination with ultrashall therapy has a place in the treatment of hypertrophic scars.

Riassunto

Sono stati effettuati molti tentativi terapeutici per cercare di trattare e migliorare le cicatrici ipertrofiche senza che si siano ottenuti risultati soddisfacenti.

Per cercare di risolvere questo problema è stato effettuato uno studio che ha utilizzato la tecnica del massaggio a trazione due volte a settimana per un periodo di sei settimane.

Prima del massaggio la zona cutanea è stata sottoposta ad un trattamento mediante "ultrashall".

Questo studio dimostra come queste due tecniche combinate possano essere utilizzate con efficacia nel trattamento delle cicatrici ipertrofiche

INTRODUCTION

Keloids and hypertrophic scars represent exuberant forms of scar formation that frequently are pruritic, painful, and occasionally form strictures. As well, they may result in significant cosmetic disfigurement. Many patients ask for medical help for scar revision, and many kinds of therapy are available. Surgical correction is one of the most applied methods for scar revision. However, this technique always results in a new scar, and has many limitations. Other treatment modalities include local injection with corticosteroids and the use of retinoids (topical and symmetric) , cryosurgery , radiotherapy, laser therapy and interferon therapy are applied occasionally for atrophic scars or keloids. Finally, there is the possibility to camouflage the entire skin area, which leads to an amelioration of the optical view of the scarred area.

Hypertrophic scars develop as a result of a proliferation of tissue following skin injury. These proliferative scars are characterized by an increase of collagen and glycosaminoglycan content.

Notwithstanding the broad variety of treatment possibilities, many patients are not satisfied with the obtained result. Massage therapy is one of the attempts to intervene with the formation of hypertrophic scars or to ameliorate them. Friction massage therapy has been proven effective for hypertrophic scars. As massage techniques are widely practiced by many skin technicians, we started a trial to investigate the effect of skin massage on scars. Our technique is based on different massage movements, in which traction plays an important role, depending on the depth of the scar.

Prior to the massage, skin and subcutaneous tissue were treated with ultrashall treatment to facilitate the massage.

PATIENTS AND METHODS

It concerns a prospective, randomized observer blinded trial. After randomization two equal groups escist. The subsequent groups receive active treatment and no treatment. The outcome of both groups was judged by a judgment committee, consisting of a dermatologist and a plastic surgeon. This committee scored pictures of the patients before and after treatment on a scale of 8 grades of conspicuousness (100%, 85%, 70%, 55%, 45%, 30%, 15%, 0%). In addition, the scars were judged by the treating physician as well as by the patients themselves before and after treatment.

PATIENTS

In total, 16 patients were included (10 females and 6 males, age range 2-63 years, mean age 32 years) [table I and II], which were randomized in two groups of 8 patients each. The scar had to be at least 3 months old; ultrasound was applied beforehand in all scars.

Group 1 (4 females and 4 males, range 2-47 years, mean age 27 years) was treated for a period of 6 weeks, twice a week. Group 2 (6 females and 2 males, age range 2-63 years, average age 37 years) served as a control group and was not treated until after the investigation. A judgement committee evaluated the results. The conspicuousness of the scar before treatment was set at 100%, the conspicuousness after treatment was given in percentages. Example: Conspicuousness is 70% before treatment. After treatment the conspicuousness has decreased to 45%. The reduction percentage is calculated as follows: 45%/70% = 64.3% conspicuousness, 100% - 64.3% = 35.7% reduction.

MASSAGE TECHNIQUE

The procedure includes application of various massage techniques. Noteworthy is that at least one massage technique involves traction [figure 1 and 2]. Generally, the scar tissue is lifted with

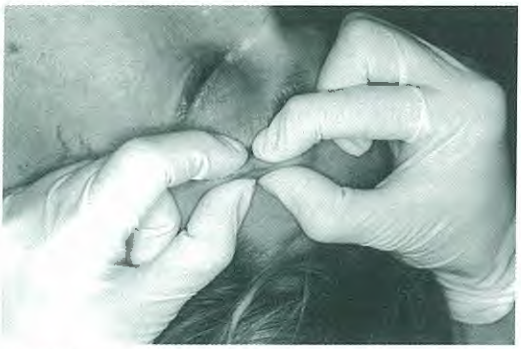

Figure 1

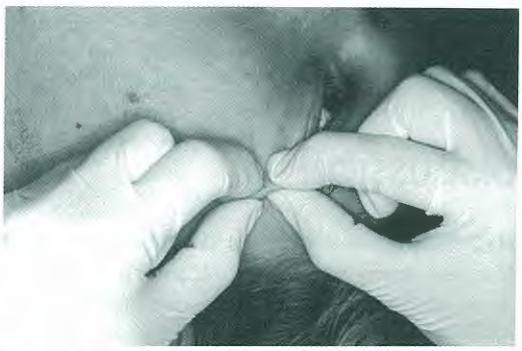

Figure 2

the fingers of two hands placed side by side, thus forming a skin fold between the fingers.
Consequently, the fingers/hands are moved alongside each other, across the skin fold [see arrows in figure 1]:

- Through a twisting/rotating movement of the hands in regard to each other (exercise a torsion force on the skin fold);
- Through a transversal/forward movement of the hands in regard to each other (exercise a forward force in the skin fold);
- Or a combination of these two possibilities (either in one single move or in consecutive moves).

Then the hands are moved and the technique is repeated until the entire scar is treated. Generally, this technique starts at the edges of the scar and/or at the transition of surrounding skin tissue to scar tissue, after which the whole length is worked up.

For a rectangular scar the technique is visualized in figures 1 and 2. The massage is started across the scar [see arrows in figure 1], lifting a skin fold between the fingers in the length of the scar (the major part of the skin fold will be scar tissue), after which the hands ar emoved alongside each other across the scar [see arrows in figure 1]. As a rule, this movement is repeated 1-30 times (mostly 2-15 times) during a total of 1-20 seconds (mostly 2-10 seconds). This can be painful and lead to discoloration/swelling of the scar and/or the surrounding skin, but these effects disappear rapidly after ending the treatment.
After massaging part of the scar, the hands are placed along the scar and the massage 8is repeated until the scar has been massaged over the entire length, working from one end to the other. Then it is possible to exercise another cycle of massage under traction as shown in figure 2. The skin fold is lifted across the scar (thus, the skin fold consists both of scar tissue and surrounding skin tissue on either side), after which the hands are moved alongside each other in the length of the scar [see arrows in figure 2]. After massaging part of the scar, the hands (which are placed across the scar) are moved along the scar and the massage is repeated. The massage is commenced at one end of the scar and continues until the other end is reached.
In case of non-rectangnlar scars the massage can also be commenced at one or more ends of the scar, working to the middle or another end, depending on the shape of the scar.

ULTRASHALL

Ultrasound waves are added to the massage technique to improve the permeability of cell walls in scar-surrounding tissue, increasing tissue metabolism. The massage technique and the creation of healthy cells in surrounding tissue break through the barrier caused by the scar with dead cells. In this way, blood and oxygen

can stimulate life in scar tissue. The frequency settings of ultrasound are dependent on nature and condition of the scar. Depth and size of the ultrasound applicator can be varied. The proper applicator and frequency are chosen to fit with the intended result. Although experience is desired, an indication for the use of ultrasound in scar reduction can be given. The thickness of the scar determines the permeability of sound waves.

An ultrasound device (Enrofnonius Sonoplus 590) has two applicators with different functions. The 1 Mhz-applicator is used for pretreatment to soften the scar, while the 3 Mhz-applicator is used post treatment to restore tissue and for activating the process of removing cell surplus.

The 1 Mhz-applicator works in depth. These sound waves restrain or neutralize sub-dermal fibrosis/hardening. Real restoration cannot take place without depth-treatment with the 1 Mhz-applicator. It is important to restore the conditions, which are necessary for wound/scar restoration, such as regeneration of microcirculatory blood and lymph capillaries by means of anastomosis formation. Restoration occurs where blood (oxygen) can flow again. The sooner the skin is brought to normal conditions, the less necrosis (cell death), the more restoration occurs.

The 3 Mhz-applicator works superficially. A scar occurs when the dermis is damaged. The scar itself restores some cosmetic/visual aspects after using the 3 Mhz-applicator. These aspects are: restoration of skin color, fading of the scar and homogenous blending of the scar with the surrounding tissue.

The dose of sound waves is dependent on the area to be treated. The dose is low (0.5-0.65) in areas where the bone is directly underneath the dermis (forehead, tibia), because the bone reflects and does not have the ability to absorb. A higher dose (0.65-1.2) is set for muscle tissue and strongly raised scar tissue. The ultrasound applicator is placed askew against the edges of the scar when the scar tissue is strongly raised, whereas the applicator is placed straight on the scar when the scar is flat.

The size of the scar determines the duration of ultrasound waves (between 3 and 5 minutes). The larger the scar, the longer the dose has to be distributed over the area to be treated. An indifferent gel was used as conduction fluid.

RESULTS

The treatment results are summarized in tables 1 to 6. A clear reduction is seen in both groups. However, the treatment group shows a significantly better response: 29% (active treatment) versus 15% (no treatment).

DISCUSSION

Hypertrophic scars form a particularly difficult medical management problem. The management is controversial and many different therapies are described. Histologically an excess of collagen (primarily type I collageen) is observed. After treatment with intralesional triamcinolon acetonide, Kauh et al found a suppression of pro-a (I) type I collagen gene expression in the dermis. It seems that all other therapy modalities will act on the same biological basis: due to the reduction of this synthesis of collagen I, the collagen bundles will become thinner. Therapists have used a variety of treatment modalities,, including ultrasound, high voltage and lasers. However, significant improvement is not proven in literature. One of the techniques reported to soften restrictive fibrans bands and improve the pliability of the scar is the massage technique.6 Different types of massage techniques are described: effleurage, friction and pétrissage.

From this study it is clear that an improvement of the appearance of scars is possible with our massage technique. Evaluation of scars is very

subjective, which was a reason for us to choose a panel to judge all slides (without knowledge of the treatment). All three evaluation groups (blinded panel, treating physician and patients) noticed a significant improvement of the scars. Although it is an intensive treatment (30-40 minutes per session), it is worthwhile to use this treatment for scar revision. The technique of the massage as described, seems to be essential for the outcome of the therapy.

The use of ultrashall before and after the massage has a complementary effect on the massage.6 Massage alone was not effective as proven in the study of Patiño.6

Scar massage has been known for a long time to improve skin condition. There are mainly two underlying mechanisms, which are responsible for this improvement. On one hand, collagen bundles are flattened and fibroblasts are stimulated to increase their rebuilding, leading to a normalization of the collagen I and III proportion. On the other hand, lymph drainage increases, leading to a better local metabolism. Both mechanisms seem to he responsible for the scar improvement. In addition to this, the skin microcirculation is activated by the massage.

In general, the massage is applied in such a way that the blood circulation is improved, for instance by rubbing the blood vessels (moving one hand towards the other hand), or by stimulating the connective tissue.

Furthermore, the massage treatment as described above can be repeated one or more times if so desired, i.e. during one or more treatment sessions. As a rule, the treatment sessions will be a part of a long-term treatment regime, for instance once or more times a week during several months.

The above-mentioned massage techniques can be combined with ultrasound. Application of ultrasound results in increased permeability of the cell walls within the scar, which leads to improved tissue metabolism and increased general skin condition. Moreover, the scar tissue gains suppleness, which increases the blood circulation. Treatment with ultrasound can be applied before or after the massage treatment.

In conclusion, a combination of a massage (in which the manual movements of the therapist are adjusted to the depth of the scar) and proper ultrashall will lead to a significant improvement of hypertrophic scars. Training in this technique is essential for optimal results.

Table I

The fingers are moved alongside each other, across the skin fold.
Judgement medical committee (Group 1 – Active)

Patient	number	Before treatment	After 12 cycles of massage compared to pretreatment	Post treatment (6 weeks) compared to pretreatment	
	Visual (=100%)	Visual	Reduction (%)	Visual	Reduction (%)
1	100%	85%	15%	70%	30%
2	100%	70%	30%	30%	70%
12	100%	70%	30%	70%	30%
14	85%	70%	18%	55%	35%
3	100%	70%	30%	45%	55%
5	70%	45%	36%	55%	21%
6	85%	85%	0%	85%	0%
8	85%	55%	35%	45%	47%
Mean reduction active in regard to 'point zero'			*24.2%*		*36%*

Table II

The fingers are moved alongside each other, in the length of the scar
Judgement medical committee (Group 2)

Patient number	Pretreatment	No treatment (inactive) compared to pretreatment		Post treatment (active) compared to pretreatment	
	Visual (=100%)	Visual	Reduction (%)	Visual	Reduction (%)
11	100%	85%	15%	45%	65%
7	55%	45%	19%	55%	0%
4	100%	85%	15%	70%	30%
13	70%	55%	21.5%	55%	21.5%
16	85%	85%	0%	70%	18%
9	100%	85%	15%	70%	30%
10	55%	55%	0%	45%	19%
15	70%	55%	21.5%	55%	21.5%
Mean reduction in regard to 'point zero'			*15.3% (inactive)*		*29% (active)*

Table III

Judgement treating physician (Group 1 – Active)

Patient number	Pretreatment	After 12 cycles of massage compared to pretreatment		Post treatment (6 weeks) compared to pretreatment	
	Visual (=100%)	Visual	Reduction (%)	Visual	Reduction (%)
1	100%	85%	15%	70%	30%
2	70%	55%	21.5%	15%	79%
12	100%	85%	15%	70%	30%
14	85%	70%	18%	55%	35%
3	100%	55%	45%	30%	70%
5	70%	45%	36%	30%	67%
6	85%	85%	0%	85%	0%
8	85%	55%	35%	30%	65%
Mean reduction active in regard to 'point zero'		*23%*			*47%*

Table IV

Judgement treating physician (Group 2)

Patient Number	Before treatment	No treatment (inactive) compared to pretreatment		After treatment (active) compared to pretreatment	
	Visual (=100%)	Visual	Reduction (%)	Visual	Reduction (%)
11	100%	100%	0%	45%	55%
7	70%	55%	21.5%	55%	21.5%
4	85%	85%	0%	70%	18%
13	70%	55%	21.5%	55%	21.5%
16	85%	85%	0%	70%	18%
9	85%	85%	0%	55%	35%
10	55%	55%	0%	30%	65%
15	70%	70%	0%	55%	45%
Mean reduction in regard to 'point zero'		*5.4% (inactive)*		*35% (active)*	

Table V

Judgement patient (Group 1 – Active)

Patient number	Pretreatment	After 12 cycles of massage compared to pretreatment		Post treatment (6 weeks) compared to pretreatment	
	Visual (=100%)	Visual	Reduction (%)	Visual	Reduction (%)
1	100%	55%	45%	55%	45%
2	70%	30%	57%	15%	78%
12	85%	55%	35%	45%	47%
14	85%	55%	35%	55%	35%
3	100%	55%	45%	30%	70%
5	70%	45%	36%	30%	57%
6	100%	85%	15%	85%	15%
8	85%	45%	47%	30%	65%
Mean reduction active in regard to 'point zero'		*39%*		*51.5%*	

Table VI

Judgement patient (Group 2)

Patient number	Pretreatment	No treatment (inactive) compared to pretreatment		After treatment (active) compared to pretreatment	
	Visual (=100%)	Visual	Reduction (%)	Visual	Reduction (%)
11	100%	100%	0%	45%	65%
7	70%	55%	21%	55%	21%
4	85%	85%	0%	85%	0%
13	70%	55%	21%	55%	21%
16	85%	85%	0%	70%	35%
9	85%	85%	0%	55%	35%
10	55%	45%	18%	30%	45%
15	85%	85%	0%	70%	18%
Mean reduction in regard to 'point zero'		*9% (inactive)*		*34% (active)*	

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EVALUATION OF EFFECTS ON SKIN PARAMETERS OF ORAL TREATMENT WITH FRESH PRESSED NETTLE JUICE AND FRESH PRESSED DANDELION JUICE- AN OPEN, CONTROLLED, PROSPECTIVE PILOT STUDY

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Summary

We conducted observation trials on the effects of treatment with a combination of fresh pressed nettle and dandelion juices on objective and subjective skin condition parameters. 10 healthy female test participants (test group) took orally the combined plant juices over a period of 6 weeks, while at the same time receiving a standardised skin care using basic DAC cream. A further group of ten female participants (control group) were merely given the standardised basic DAC cream. Measurements were taken at precisely defined skin areas on face and left forearm before the start of the trials and after 1,2,4 and 6 weeks to find out what effects the fresh pressed plant juices had on the skin using pH-Metry, corneometry, cutometry and profilometry. All participants were asked about a series of subjective parameters at the same intervals.

Skin hydration parameters showed a clear improvement in the test group on both face and forearm after 4 weeks of juice intake. After 6 weeks there was a significant difference in comparison with the control group (p=0,05). Elasticity of skin increased significantly or at least improved clearly. pH-Metry and profilometry measurements showed no changes due to plant juice intake. Level of satisfaction with skin condition revealed in questionnaires filled in by participants improved slightly after just one week in comparison to the control group. This tendency increased after 4 and especially after 6 weeks into a clear difference versus the control group, who reported no overall change in their skin condition.

This pilot study implies beneficial effects of stinging nettle and dandelion fresh pressed juices on skin parameters.

Riassunto

Sono stati presi in considerazione gli effetti provocati dall'assunzione orale di un succo di ortica e tarassaco utilizzando parametri obiettivi e soggettivi.

Sono stati sottoposte a controllo dieci persone di sesso femminile che hanno preso per via orale una bevanda composta dai due succhi, unitamente ad un trattamento topico denominato DAC per un pe-

riodo di sei settimane.
Un gruppo di dieci donne che applicavano solo la crema DAC sono state utilizzate come controllo.
Alla I, II, IV, e VI settimana è stato effettuato il controllo sulle aree prescelte del viso e dell'avambraccio mediante la misurazione del pH, dell'idratazione cutanea, dell'elasticità cutanea e della profilometria.
Sia l'idratazione che l'elasticità cutanea hanno dimostrato un netto e significativo miglioramento ($p=0.05$) fin dalla quarta settimana sul gruppo che prendeva per bocca il succo in paragone al gruppo di controllo.
Il pH e la profilometria non hanno mostrato differenze significative.
Alla sesta settimana, la significatività è risultata maggiore anche con i controlli soggettivi.
Questo studio pilota ha dimostrato che, con i parametri utilizzati, il succo di ortica e di tarassaco sono in grado di esercitare effetti benefici sulla cute.

INTRODUCTION

Treatment with nettle and dandelion fresh plant juices is restricted at present to the following indications:
Nettle for flushing-out therapy of kidneys and bladder, and prevention and treatment of kidney stone, supporting treatment of rheumatic disorders and support in slimming diets.
Dandelion is recommended for gall-flow problems, improves diuresis and also digestive disorders.
Increasingly it has been observed that drinking these juices leads to an improvement in skin condition. As a result of these interesting side-effects, these trials were carried out on 20 female trial participants with healthy skin.
Parameters for assessment of skin condition include pH-metry [1], corneometry [1,2,5], cutometry [1,2] and profilometry [1,3,4,5,7]. These measurement methods and especially the roughness measurement of the skin have now become important parameters in dermotology and cosmetology [4], especially in assessing results of treatment with cosmetic products [1].

PROCEDURE

The assessment of skin condition or changes to it through nettle and dandelion plant juices was investigated on healthy, female test participants both using questionnaires and the following measurement methods: pH-metry, corneometry, cutometry and profilometry. The trials lasted six weeks. Four days prior to the start of the trials all the participants began using a standardised care of facial and forearm skin with basic DAC skin cream. This was continued throughout the trials. After initial measurements (week 0), ten of the participants (test group) received 12 bottles each of nettle and dandelion plant juice. All participants were asked after 1, 2, 4 and 6 weeks about various subjective parameters and unwanted effects, and parallel to this the skin function tests described above were carried out. Each time, the measurements were carried out at exactly defined places on the skin on face and left forearm.

TEST PARTICIPANTS

20 healthy female participants (aged ≥ 30 and £ 50 years) were examined. In the test group the average age was 44.4 (34-49 years) and in the control group 37.2 (30-45 years).
From 20 participants, ten in the test group were given plant juices and ten in the control group were not. Seven of the 20 participants reported that they regularly smoked, of which 5 were in the test group and two in the control group.

MATERIAL

The test preparations used were fresh pressed plant juices nettle and dandelion from the Walther Schoenenberger Company (Magstadt, Germany). For the standard skin care on face and forearm, the participants used basic DAC cream (no active ingredients).

METHODS

The investigation was based on observations, whereby the participants were checked on the one hand by means of questionnaires and on the other using hand measurement techniques described below at time intervals 0, 1, 2, 4 and 6 weeks.

QUESTIONNAIRE

At each interval participants were asked extensively about any unwanted results, subjective symptoms (such as newly occurring stinging, itching, skin tension, peeling, reddening and dryness) and about general skin condition. Furthermore, each objective symptom was documented by the trial doctor. The questionnaires were fil-

led out at intervals 0, 1,2,3,4 and six weeks. Week 0 represented the initial condition; subsequent documentation logged improvement or any newly occurring symptoms. The grading was divided into four categories.

PH-METRY

Measurement technique: for measuring the pH value of the skin PH900 *
(Courage and Khazaka Electronics, Ltd, Cologne, Germany) was used, which uses a potentametric measurement method. The equipment consists of a base unit plus a mobile glass electrode. This electrode registers potential changes or potential differences, which are then shown in a built-in voltmeter and pH value [1].

CORNEOMETRY

Measurement technique: The measurement series were carried out with the Corneometer CM 825 * (Courage and Khazaka Electronics, Ltd, Cologne, Germany) [5]. It is a capacitative measurement system with which it is possible to measure the water content of the stratum corneum to a depth of 30-40 microns. The measurement principle is based on measuring electrical capacity. Water possesses a high di-electricity constant (81) [1,5]. Any change in the dielectric constants due to water content in the stratum corneum leads to a change in the electric capacity of the condensator. The condensator is located in a small measuring probe.

CUTOMETRY

Measurement technique: Using the Cutometer SEM 575 * (Courage and Khazaka Electronics, Ltd, Cologne, Germany) the elastic and plastic (viscous) elements of the skin are measured [1,2]. The cutometer works on a vacuum suction principle. The measurement probe is applied to the skin with constant pressure (450 mbar) on the skin area to be measured which is having suction applied to it via a 2 mm opening using a partial vacuum. The intake time lasts 5 sec. (on-time) followed by a 3 sec release interval (off-time). This procedure is repeated three times and the average value of the elasticity parameter calculated.

PROFILOMETRY

Measurement technique: Skin roughness measurement is done using a computer supported transmission profilometry with the Skin Visiometer SV 500* (Courage and Khazaka Electronics, Ltd, Cologne, Germany).
A surface relief of the skin is first produced using a silicone impression (see below). This is then irradiated using parallel light. The transmitted light is measured with the help of a CCD camera and digitally processed [4,5,7]. The transmission profilometer calculates the thickness of the prepared silicon impression via the absorption of the light let through, using the Lambert-Beerschen Law. Using the screen, the surface relief of the skin can be scaled through 256 shades of grey, so that the skin roughness or the fold relief of participants can be documented. A special software enabled us to project 180 circular profile lines onto the surface relief of the skin, thus enabling the calculation of the roughness parameters Rt, Rz, Rm, Rp and Ra (corresponding to DIN norms).
Silicone impressions: It is important for good measurement results to be able to make clean, reproducible silicon impressions. The impressions should be as thin as possible and without air bubbles. A foil with a hole in the middle is applied to an exactly defined spot on the skin. Two low-viscosity silicon components at the ratio of 1: 1 with a vacuum pump mixed with each other thoroughly for 15-20 seconds then applied quickly in the middle of the foil (one drop =ca 0.5 ml), a plaster applied and allowed to harden for approx. 3-5 minutes. Then the foil

can be carefully removed and fixed in a carrier-frame, inserted into a special instrument including a light source on one side and a black and white video sensor CCD camera with especially high resolution of 752 x 582 pixels on the other [1].

STATISTICS

To test for significant variation the Wilcoxon Test was used as a non-parametric procedure for two samples.
In case of variation within the test group the Wilcoxon Test for pair differences was used. For the selected statistical model the error level was set a 0.05. Because of the small sample size the presentation of the test results was done using descriptive statistics. To find the mean value of the ordinal scale values it was assumed that the test participants find the intervals between the categories scaleable: thus a quasi-metric data level was assumed.

RESULTS

Evaluation of the questionnaires

At the beginning of the trial period (week 0) we established by means of a questionnaire the subjective parameters plus participants' satisfaction with their skin (illustration 1). Then, at intervals week 1, 2, 4 and 6 the participants were asked about parameters such as newly occurring stinging, itching, skin tension, peeling, reddening, dryness plus any improvement in skin condition. This means that week 0 (illustration 1) describes the initial condition and diagram 2 represent the changes to initial condition (diagram 1). The value zero in illustrations 2,3,4 and 5 thus represents no improvement compared to the initial condition.
After just one week in the test group there was a slight tendency towards a subjective improvement in skin condition.
This initial slight increase in skin satisfaction among the test participants compared with the control group increased during the course of the trial (week 2 to week 4) up to week 6, where there was a very clear difference (illustration 2).
After 6 weeks of regular intake of plant juices 9 of the 10 test persons reported higher than average satisfaction with the effectiveness of the preparations (fresh plant juices) as well as improvement in the skin condition. Two participants were very satisfied with the overall improvement in skin condition, 7 reported medium improvement. About the improvement in skin

Table. I
Average pH-Metry with standard deviation

pH-Metry	face control	Face Verum	forearm control	forearm Verum
week 0	4,89±0,3	4,97±9,4	4,82±0,3	4,84±0,4
week 1	5,29±0,2	5,17±0,4	5,33±0,3	5,17±0,4
week 2	5,35±0,3	5,23±0,5	5,24±0,4	5,07±0,4
week 4	5,14±0,4	4,96±0,3	4,82±0,4	4,84±0,3
week 6	5,63±0,5	5,26±0,4	5,16±0,3	5,12±0,3

elasticity, skin smoothness and skin softness 3 participants were very satisfied and 6 averagely satisfied. As far as improvement in skin impurities, 4 were extremely satisfied and 5 quite satisfied. One of the participants reported a clear improvement in wrinkles, 7 reported average improvement and one slight improvement. (see diagram 2).
If the results of the control group are summarised, it is obvious that the skin care using basic cream alone no substantial improvement in skin condition was noted in the subjective reports of the participants (see diagram 2).

MEASUREMENT RESULTS

pH-Metry

The evaluation of the pH-Metry measurements showed no significant difference between the test group and the control group (see Table 1) Values ranged in the six weeks of the study in both groups mainly within the norm range (women 4.5-5.5). The values for the face showed an improvement by week 6, the values in the control group (without plant juice) had an average value (5.63) just above the norm in the alkaloid area. But no significant difference could be ascertained.

Results of the Corneometry

The values for a satisfactory skin hydration on the face are around >60 and for the forearm >50. Measurements on the face at week 0 on both groups were below the ideal values (see Table 2). While the control group in the course of the trial and in comparison to week 6 was below this value, the test group showed an increase in values up to week 6 (see Table 2). At the same time the results of the test group at week 6 was clearly above the ideal values whilst the values of the control group were always clearly beneath them. A significant difference (see Table 2) is evident. Skin moistness values for the forearm showed similar differences, The control group values were indeed slightly above the ideal level but the participants taking fresh plant juices had significantly higher results after 6 weeks in the average value (see Table 2). There was also a significant rise in values within the test group during the 6 weeks of juice intake, (see Table 2) .

Table. II
Average corneometry (=p0,05) with standard deviation*

corneometry	face control	face Verum*	forearm control	forearm Verum*
week 0	54,5±8,0	59±11,1	54,5±13,2	62,7±16,5
week 1	51,5±8,2	55±9,5	41,9±6,5	52,8±9,4
week 2	45,6±13	56,3±15,5	41,9±5,6	52,4±9,1
week 4	61,8±7,7	68,4±12,2	56±12,2	65,5±13,7
week 6	55,1±14,6	66,3±14,2	54,4±14,2	74±15,2

Results of Cutometry

The results of the skin elasticity measurements, apart from Parameter R8 in the face, showed no statistical significance. R8 is also referred to as visco part (= the area above the elasticity curve within a square formed of Ufx times suction time, the smaller this value, the more elastic the curve). The measurements of parameter R8 in the face of the participants of the test group showed a significant reduction (see Table 3) within the 6 weeks of juice intake. This points to an improvement in skin elasticity in the test group in comparison to the control group, which has a consistent range of measurements (see Table 3).

In Table 3 the comparative values over the 6 weeks are presented as average values. It was remarkable that the drop in R8 was very evident after just one week of juice intake and after Week 2 a further drop was evident. The values at Week 4 and 6 were stable but showed no further reduction. This allows the assumption that the effect of fresh plant juices in regard to the improvement in skin elasticity reaches its full effect in the first two weeks of intake. The values for the forearm showed no notable differences in the two groups (see Table 3).

The skin elasticity parameters R6 (Uv/Ue= part of visco -elasticity in the elastic part of the curve; the smaller the value the higher the elasticity) in both groups over 6 weeks show a clear reduction in values (see illustration3) within the test group especially at week 1 and 2, after which the values are consistent, similar to the case of R8. In the control group there were no changes in the average value during the trials.

Results of Transmission Profilometry

In the measurements for skin roughness in both groups showed no significant change in values in the 6 week period.

DISCUSSION

After 6 weeks of skin care with basic DAC cream plus regular oral treatment with nettle and dandelion plant juices, the participants showed no significant change in pH values. However, since the values were found to be in the normal range before the start of the trials, no conclusions are possible as to whether treatment with fresh plant juices can influence pathological - e.g. alkaloid - pH values of the skin.

A significant improvement in skin hydration af-

Table. III

Average parameter of skin elasticity R8 (=p0,05) with standard deviation*

Parameter of skin elast. R8	face control	face Verum*	forearm control	forearm Verum
week 0	6,879±0,9	8,989±2,4	7,655±2,1	8,645±1,7
week 1	6,73±0,7	7,733±1,7	7,851±2,6	7,908±2,4
week 2	6,658±1,2	6,572±0,9	7,49±1,5	7,875±0,9
week 4	6,621±12	6,615±1,1	7,435±1,9	8,26±2,1
week 6	7,126±1,5	6,51*±1,6	8,507±1,4	8,407±2,6

ter treatment with nettle and dandelion plant juices was shown, however, both in comparison with the control group and during the course of the trials (before and after). This effect was of course also partly brought about by the accompanying skin care with basic DAC cream [6], as the control group also showed an improvement in skin hydration. This however was not a significant difference.

Why clear effects were shown not earlier than week 6 could not be analysed within the scope, of this observation – eventually therapy success starts after that interval.

Skin elasticity parameters R6 (part of visko-elasticity) and R8 (visko part) on the facial area showed a clear improvement after 6 weeks of oral treatment with nettle and dandelion plant juices. R8 showed a significant improvement (reduction) and R6 showed a clear but not significant change. This trial could not reveal completely the mechanism behind this change in skin elasticity.

In the literature, possible effects of plant juices on skin condition have not been described so far. Possibly the change in skin hydration and skin elasticity can be explained by the diuretic and detoxifying effects of the juices.

The study described in this article is a pilot project with a limited number of test cases. Final conclusions can not yet be drawn but have to be investigated in further studies.

No changes were noted in the roughness parameters on the forearms of participants. This allows several suppositions either the trial period was too short to be able to measure changes in the wrinkle profile of the skin; the number of trial participants was too small to make meaningful conclusions; or the intake of fresh plant juices indeed had no effect on improving the wrinkle depth of the skin.

This last conjecture is denied by the questionnaires, on which participants who had taken fresh plant juices subjectively expressed a clear improvement in wrinkle profile. Further evaluation of such subjective reports on the questionnaires showed a clear improvement in overall skin condition, skin smoothness and the effects of skin impurities.

These results strengthen the conjecture - insofar as this is possible with such a small number of test participants - that with the regular intake of nettle and dandelion plant juices both a subjective and measurable improvement in skin condition can be achieved .

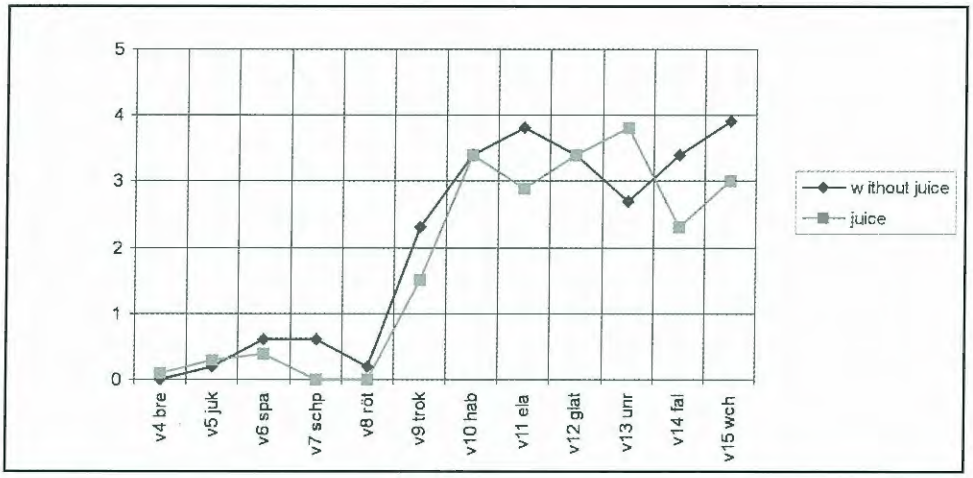

FIGURE 1: *Subjective symptoms as well as satisfaction with skin of participants before the start of the trials (week 0). Brief explanation of the abbreviations used in the figures:*
Subjective symptoms: bre: stinging; juk: itching; spa: skin tension; schp: peeling; röt: reddening; trok: dryness. satisfaction with skin: hab: overall skin condition; ela: elasticity; glat: smoothness; unr: skin impurities; fal: wrinkles; wch: skin softness.

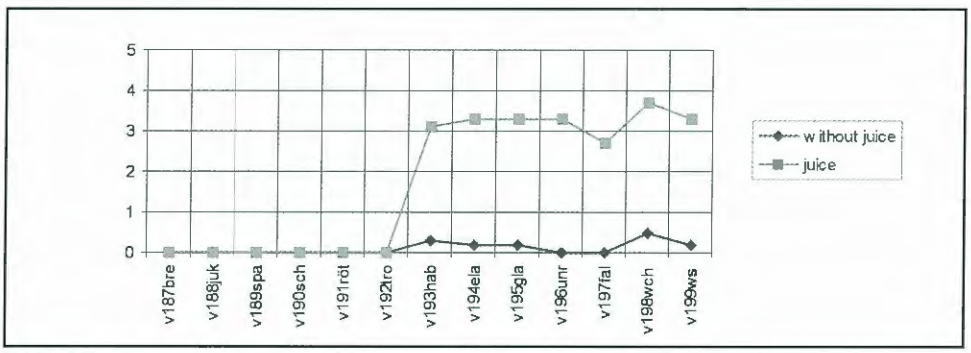

FIGURE 2: *Subjective symptoms and improvement of the appearance of the skin, week 6.*

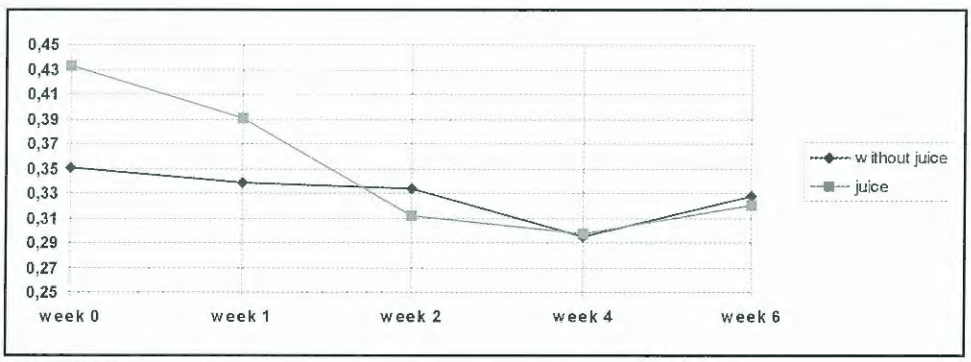

FIGURE 3: *Parameters for skin elasticity R6 (face) shown over a period of six weeks.*

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THE INFLUENCE OF SPA PRODUCTS TREATMENT FOR SKIN-CARE

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Key words: *first-line barrier, the 'actives', cosmeceuticals, essential oils, aromatherapy, and homeostatic system*

Summary

'Spa' is the Millennium buzzword for health, beauty and, relaxation. Its current popularity in the lives of trendsetters, jet setters and, health fanatics everywhere. Spa offer some solution for those who want to look good, feel good and rejuvenate their bodies as well as their souls. Modern Spa become very popular in hotels and resorts by using many kinds of natural and modern spa products for skin, body and hair care. Many kinds of products could contains active ingredients such as AHA, Vitamin C,E, A, antioxidant, jojoba, liposome, ceramide, etc. (cosmeceuticals) and essential oils (aromatherapy).

Skin as first-line barrier, is a living organ, which covers the whole body, consist of epidermis, dermis and subcutis. Skin is also an amazing organ. The outer most layers, the horny layer comes in direct contact with the forces of the outer environment and in turn responds back to the environment. Horny layer is not simply collection of dead cells, but a complex of organism that is a part of a homeostatic system. All phenomena occurring at the horny layer included use of cosmetics are transmitted to the epidermis and the inner skin. Langerhans cells in the epidermis are type of immune cell and that the skin is deeply integrated with the body's overall homeostatic system. (Ozawa, T, 1997). The image of the contact point between the Langerhans cells and nerve cells, confirming that the 'mind' and 'body' are connected to one another in the skin. (Dr. Hosoi of the MGH/Harvard Cutaneous Biology Research Center). The disturbance of the homeostatic balance, which accompanies aging and rapid changes in the external environment, clearly affects to the epidermis and dermis. The proper skin care treatment not only helps preserve the skin's biophysical equilibrium but can also help precipitate a biophysical virtuous cycle of beneficial results.

Skin-care by using spa product treatment will be discussed further.

Riassunto

Il centro estetico, denominato SPA nel mondo anglosassone, è considerato il luogo ideale per la salute, la bellezza ed il relax da tutto il jet set internazionale e dai "fanatici" della salute e del benessere a "qualsiasi costo".

La SPA offre molte soluzioni a tutti coloro che desiderano sentirsi in buono stato e ringiovanire sia il corpo che lo spirito utilizzando tutti i prodotti, naturali e non, studiati appositamente per questi scopi

e presenti perciò in tutti i Centri Estetici più moderni.
E' per questi motivi che molti prodotti contengono alfaidrossiacidi, vitamina C, A ed E, antiossidanti ed altri "attivi" contenuti in veicoli liposomiali (cosmeceutici) o utilizzati per la aromaterapia.
La pelle rappresenta la prima linea di difesa del nostro organismo e ricopre tutto il corpo mediante un mantello formato dall'epidermide, il derma ed il sottocutaneo. Inoltre è un sorprendente organo che, in contatto diretto con l'ambiente esterno, ci difende con la presenza dello strato corneo mantenendo l'omeostasi di tutto il nostro organismo.
Tutti i fenomeni che interessano lo strato corneo, compresa l'applicazione dei prodotti cosmetici, vengono trasmessi agli strati profondi della pelle dove le cellule di Langerhans sono deputate al controllo immunitario entrando in stretto contatto anche con le terminazioni nervose. In questo modo mente e corpo sono collegate tra di loro.
L'invecchiamento cutaneo provoca cambiamenti di questo delicato equilibrio e ciò influenza le caratteristiche sia dell'epidermide che del derma.
L'utilizzazione dei giusti trattamenti riservati alla cura della nostra pelle migliora perciò il nostro equilibrio sia fisico che psichico.
Vengono così discussi e presi in considerazione alcuni trattamenti utilizzati nelle SPA .

INTRODUCTION

'Spa' is the Millennium buzzword for health, beauty and relaxation. Its current popularity in the lives of trendsetters, jetsetters and health fanatics everywhere. Spa as a conductive environment of de-stress, pampering oneself and an escape to achieve balance between "body", "mind" and "soul" both using natural and modern spa products for skin, body and hair care. Most spa skin care treatment using essential oils (aromatherapy). Nowadays, the active ingredients such as AHA, antioxidant, vitamin C, E, A (Cosmeceuticals) put in the spa products for skin care treatment.

Skin as first-line barrier, is a living complex organ, which covers the whole body, consist of Epidermis, Dermis and Subcutis. It is an amazing organ, which has an interface form, between outer environment and the inner body, it has a homeostatic function. [1]

The research on Cutanoues Biology between scientist from Shiseido and MGH/Harvard Cutaneous Biology Research Center (CBRC) have found new development which piercing together the scientific puzzle of what has in the past been called "mind-body connections" in skin health and wellbeing. This will explain how spa skin care works

Besides, the whole body-treatment (beauty treatment) by using natural or modern "actives" spa products in skin care, today, modern Spa offer some additional "mindful" exercises such as yoga, tai chi, meditation, etc, which focusing on breathing techniques has offer physical and psychological benefits. This spiritual dimension combined with indoor and outdoor exercises such as gym, horsing, etc. Modern spa sometimes suggests by providing the simple cuisine or liquid assets as a diet therapy. [2]

THE EVOLUTION OF SPA

The term 'spa' derives from a Belgium town whose mineral waters have long heen known for their therapeutics value. Many European spas became famous for their waters including Vichy in France, Malvern in England, Baden-Baden in Germany, and Marienhad in the Czech Republic. Several different treatment regimes emerged, notably Thalassotherapy (Salt water treatment), and the Kneip water cure (based on water, sunshine, fresh air, and regular activity) which remains very popular European spa centers. [4]

In Indonesia, the ancient palaces (The Royal Heritage) such as Yogyakarta and Surakarta (Solo), were made bath-pools for the princess. They called it " Taman Sari". They were filled with natural spring water and the flowers.

Today, Spa appears in many destinations such as Home Spa lines lead by United Stated where available to the home user. Furthermore, almost hotels and resorts in over the world are completed with spa's services and its products. Wherein, they offer a combination indoor and outdoor exercises such as yoga, tai chi, meditation and also diet therapy, etc. [2]

THE SKIN-CARE IN SPA TREATMENT

SKIN STRUCTURE AND FUNCTION

Skin as first-line barrier, is a living complex organ, which covers the whole body, consist of Epidermis, Dermis and Subcutis. It is an amazing organ, which has an interface form, between outer environment and the inner body, it has a homeostatic function. The outer most layers of the skin is the horny layer comes in direct contact with the forces of the outer environment and in turn responds back to the environment. Horny layer is not simply collection of dead cells, but a complex of organism that is a part of homeostatic system. [1]

All phenomena occurring at the horny layer included use of cosmetics are transmitted to the epidermis and the inner skin. Langerhans cells in the epidermis are type of immune cells and that the skin is deeply integrated with the body's overall homeostatic system. (Ozawa, T, 1997). (Fig.1)

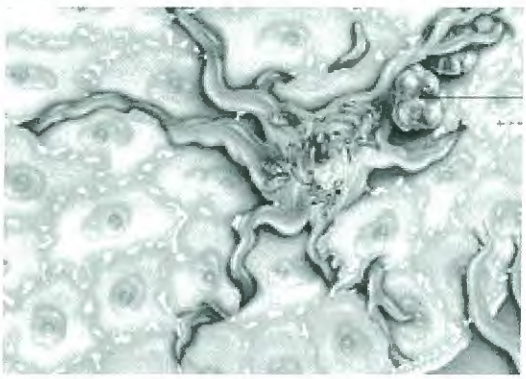

Figure 1

The image of the contact point between the Langerhans cells and nerve cells, confirming that the 'mind' and 'body' are connected to one another in the skin. (Dr. Hosoi of the MGH/Harvard Cutaneous Biology Research Center). The disturbance of the homeostatic balance, which accompanies aging and rapid changes in the external environment, clearly affects to the epidermis and dermis. The proper skin care treatment not only helps preserve the skin's biophysical equilibrium but can also help precipitate a biophysical virtuous cycle of beneficial results.

Both epidermis and dermis are primary layers. The Epidermis consist of the living cells layers which is keratinocytes, and the non-living cell layer, the horny layer which form the external surface of the skin. The dermis consists primarily of abundant, collagenous, connective tissue and mesenchymal cells including fibroblast which produce collagen fibrils and the proteoglycan complex. Between the epidermis and the dermis is a basement membrane, which regulate the epidermal proliferation and differentiation. Within the basal layer of the epidermis are stem cells from which the keratinocytes are generated. (Fig.2)

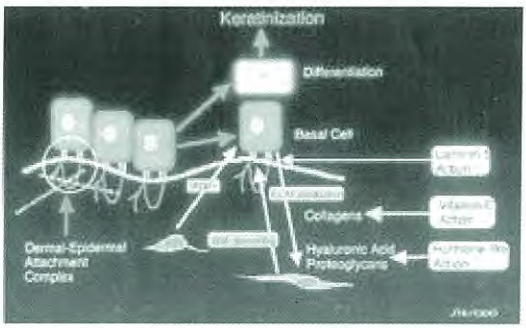

Figure 2

The dermis is important physiologically to the epidermis in that certain soluble growth factors produced and secreted by dermal cells are necessary for epidermal cells to proliferate and differentiate. These components of the dermis form the extracellular matrix structure, which confers strength and flexibility to the skin.

Endocrine activities play role in regulation of skin structure and function. Hormones from the dermal blood supply elevate production of glycosaminoglycan and proteoglycan. Vitamins also play an important role. Ascorbic acid, or vitamin C, is well known to increase production of collagens.

New developments are piercing together the scientific puzzle of what has in the past been called "mind-body connections" in the skin health and wellbeing. These connections can be elucidated by study of neuroimmuno cutaneous endocrine interaction (NICE). (John A. Parrish MD, Cutaneous Biology Research Center/MGH).[1]

INTERACTION OF NEURO-IMMUNE-CUTANEOUS ENDOCRINE (NICE) SYSTEM TO SPA SKIN CARE

Hosoi at all (10) in their research found that cosmetics have the ability to modulate cutaneous condition by inducing changes in nervous, endocrinological, and immunological functions

(NICE). This explained the linkage between the NICE and the mind through the nervous system and the endocrine system. Physiological function of the skin might possibly regulated by these systems. It will explain how spa skin care works. It will explain how spa skin care works. (Fig.3).

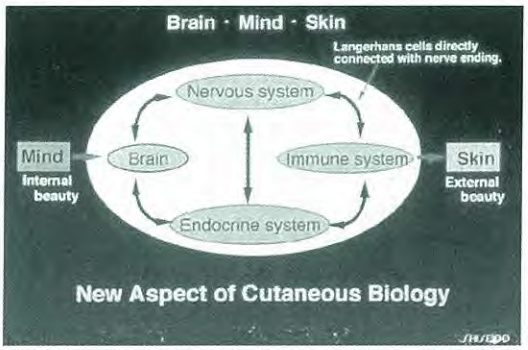

Figure 3

According to this concept and their findings, stress can cause distortion within the NICE system, resulting in skin problems. NICE regulatory mechanism for cutaneous homeostatic is observed in humans. Plasma cortical increased after interview stress. These indicate that psychological input affects the neuro-immune system and neuro-endocrine system. In 7 of 9 humans subjects barrier recovery function was lower after the interview stress. From this result, conclude that stress-induced changes in the NICE system influence the cutaneous functions in humans.

The application of spa products treatment on the humans, related to these concept shows that the proper skin care treatment not only help preserve the skin's biophysical equilibrium but can also help precipitate a biophysical virtuous cycle of beneficial results.

Based on Ozawa's, not only the body (skin) but also the mind will be addressed. Care of the mind will impart health and beauty to the body (skin), and care of the body (skin) will likewise be important in maintaining good mental health. Further he explained, our vision is to place both mind and body in the ideal relationship to one another to achieve a virtuous circle.

THE ACTIVE SUBSTANCES IN SPA COSMETICS

The development in cosmetic science and technology which is shown with many active substances in cosmetics products for some purposes. It has beneficial effect such as rejuvenating the skin (anti ageing), whitening effect, moisturizing, etc. The active substances in cosmetics may improve the structure and function of the skin. Cosmetics, which contain active substances, mentioned on some meanings as follows: [9]

1. Cosmetics (Lubow, 1955). [6]
2. Medicated Cosmetic (Faust, 1957). [7]
3. Cosmecuticals (Reed-1961, Kligman-1982). [8]

The active substances in spa products among others:

1. AHAs (alpha Hydroxy Acids) : at low concentration may have moisturizing effect, and higher concentration may have exfoliating effect and improve skin elasticity
2. Vitamin C and E as anti oxidants and whitening effect and vitamin C stimulate collagen formation in the dermis
3. Green Tea claimed as an active anti oxidant to protect skin cells from free radical (Mitscher, 1997)
4. And other natural ingredients such as Chamomile, Tea Tree, essential oils, etc., which are believed have beneficial effect in Cosmetic Skin-care products, the most uses in spa treatment.

SKIN CARE TREATMENT AND ITS PRODUCTS

As mentioned before skin care treatment in spa by using natural or modern spa products, which applied in many kinds spa treatment, would achieve body (skin) mind and soul. Aim of skin

care is health promoting through balancing between body (skin) mind and soul. There are several kinds of spa skin care as follows: [2]

1. Bath/soak/cleanse/wash: to cleanse the skin, relax the mind with Floral bath, Aromatherapy bath, Ocean bath (Thalassotherapy), Milk bath, Water Shiatsu bath, etc.
2. Scrub: to release the dirt, dead skin cells, make the skin more bright, smooth and healthy with Coconut scrub, Bali Coffee scrub, Oriental (Honey), scrub, etc.
3. Massage: improve and promote blood circulation with Traditional Indonesian (Lulur Herbal), Aromatherapy (with carrier oils), etc.
4. Mask/wrap: to relaxing and smooth the skin with Herbal (aloe vera & lavender, avocado, etc.), Egg white, sea mud, etc.
5. Moisturize/polish: to soften and revitalizing the skin with Papayas, Honey, etc. Some spa services offer hair care treatment such as: Crème bath, Natural crème bath, Aromatherapy, Traditionally wash with milk, merang (Javanese), etc.

AROMATHERAPY AND ESSENTIAL OILS

Aromatherapy is one of the most ancient healing arts, Hieroglyphics (4500 BC).
Aromatherapy uses essential oils extracted from plants, leaves, bark, roots, seed, resins and flowers to treat a range of common ailments as well as for their effects on the mind and emotions. The essential oils are massaged into the skin, inhaled or used in the bath. Some essential oils that popular used in spa are lavender, rosemary, lemon, geranium, tea tree, sandalwood, eucalyptus, etc.[3]
Essential oils enter and affect the mind and body by two principals routes-the olfactory system and the skin.

PATHWAYS AND EFFECTS OF ESSENTIAL OILS

ESSENTIAL OILS AND OLFACTION

When inhaled, essential oils particles are taken directly to the roof of the nose, where the receptor cells of the olfactory system are situated. From each receptor cell protrude thin hairs (cilia) which register and transmit information about the aromas, via the olfactory bulb, to the center of the brain. From here, electro-chemical messages are forwarded to the area of the brain associated with smell. Other messages may be relayed to parts of the body registering the oil's physical effects. Aromatic particles also travel down the nasal passages to the lungs. (Fig. 4)[3]

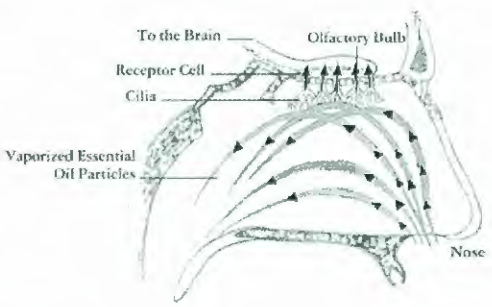

Figure 4

4. MODERN SPA

Modern spa appears in many destinations such as Home Spa lines and spa hotels and resorts, which offer both traditional and modern services by using natural and modern spa products. Indoor and outdoor spa, which combined with 'mindful' exercises, is well known services that would find in the modern spa. [2]
For instance, some of modern spa services are as follows
A. Indoor spa, like
- Hydrotherapy treatment (high-pressure water

jets): eliminate cellulite and smooth the skin
- Aromatherapy massage (essential oils): oils used whether for relaxing, invigorating, etc.

B. Outdoor spa: a horsing, cycling, etc.
C. Mindful exercises: focusing on breathing techniques which offer physical and physiological benefits such as Gym, tai chi, meditation, etc.
D. Diet Therapy: to manage calorie and the quality of the nutrients. It may health food contains vitamins, food supplement, herbal tonic (jamu), etc.

CONCLUSION

The objectives of spa skin care treatment, in particular, are not only help preserve the skin's biophysical equilibrium but can also help precipitate a biophysical virtuous cycle of beneficial results.
The new invention by Hosoi at all is that cosmetics have the ability to modulate cutaneous conditions by inducting changes in nervous, endocrinological, and immunological functions. It has proven that there is a linkage between mind, body (skin) and soul (NICE). This invention explains the beneficial effect of spa skin care treatment.
Yet, there is still need to prove scientifically of spa skin care treatment and the products.

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COSMETIC REGULATION IN A COMPETITIVE ENVIRONMENT

By Norman F. Estrin and James M. Akerson
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As a consequence of the recent coming into force of the European law regulating the production and distribution of the cosmetic products, the relevant institution of the compositions and dossier "controller", the market globalization and of the constant technology innovation, it is a real necessity to be constantly abreast of the rules to apply in the cosmetic field in order to make the cosmetic products safe.

This interesting volume reports all the novel technologies in use to study and control the cosmetic products in order to make them effective and free of side effects. According to the European low, each company has to demonstrate the efficacy and the safety of the product commercialized.

This book is divided into 24 chapters written by 34 authors of whom only 4 are European.

Since the majority of them is North American, the first 10 chapters are devoted to the rules on the production and distribution of the cosmetic products applied in the USA, and to the impact the different raw materials can have on the environment (for example, on spring water).

Big room is given also to the American rules on the labeling procedure, and on the terminology to use in order to avoid any confusion on the consumers side.

At this regard, are reported some cases of legal punishments for deception about the efficacy of the products.

The third chapter, differently from the other, is focused on the different sunscreens regulation applied in Europe, Japan, Australia.

The ninth chapter reports by appropriate tables the results of the most recent studies of the CIR (The Cosmetic Ingredient Review) on the safety of the raw materials of cosmetic use. Thanks to its serious and well-documented study, the CIR became the private consulting organ for FDA in the USA.

Chapter eleventh is completely dedicated to the American rules on OTC (over-the-counter-drugs), and the twelfth widely shows the problem of safety in the cosmetic product usage. From chapter 13th to chapter 19th, are listed all the methodologies to apply in order to control the term stability of the cosmetic product, its microbiological purity grade, its quality control and the rules to respect during the production process.

The last five chapters are entirely dedicated to the description and comment on the European law on cosmetic products, on the role played by IFRA (International Fragrance Association) on the problems connected with the usage of fragrances and raw materials, and on the different symbols chosen by every single country, European Community included, to express the positive environmental impact the cosmetic products should have on the environment.

Among these symbols there is also a paragraph dedicated to the "Eco-label" Europe creates few years ago but still to be applied because of some precise rules missing.

Last chapter is dedicated to the different cosmetic rules applied in USA, in Europe, in East Asia and China.

This book includes a wide compendium about the problems the industries have to face in order to enter the global international market. Many are the topics that can be used as starting points for discussion and fluent is the language used to explain them.

This interesting publication, written for the experts as cosmetic chemists, could be useful also for people involved in marketing, and for university researchers wishing to share their theoretic knowledge with the industries in order to enter all the aspects connected with the setting up of the cosmetic products.

P. MORGANTI
Editor-in-Chief

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PRESENT

NUTRI-COSME-CEUTICALS: A CHALLENGE FOR THE FUTURE
Rome – 6-7-8 February 2002

This international and multidisciplinary Symposium organized to celebrate the XX anniversary of the scientific activity of the International Society of Cosmetic Dermatology, intends to give a complete picture of the progress had over the last twenty years in skin physio-biological activity and in the manufacturing of innovative cosmetics and dietary supplements useful to improve people's health and appearance, and to prevent possible pathologies in the early age, in the middle age and in aged people.

For the first time participants could assist to scientific discussions presented by international experts in Physiology and Biology involved in the basic studies on skin and its appendages; by specialized technicians in Cosmetic Chemistry and Dietetics involved in the setting-up and production of cosmetics and dietary supplements; by Dermatologists, Gynecologists, Pediatrics and Dieticians who daily advice and prescribe to their patients these categories of products.
The Symposium will give proper room also to dietary and cosmetic aspects in Alternative and Complementary Medicine, such as Chinese Medicine and Indian Ayurvedic Medicine.
Aesthetic Medicine using medical-surgical devices, such as "filler", or methodologies, such as ionophoresis, ozone therapy or mesotherapy and natural products based on mineral waters and therapeutic muds of thermal origin, will be widely treated.
These topics will try to highlight all the problems concerning the activity performed by the different active principles and by the relevant carriers used for the setting-up of the finished product. The activity performed by both cosmetic and dietary products is, in fact, always in dependence of the chemical physical formulation of the active principles selected, which will be described by the formulators working for the raw materials industries, and, of course, in dependence of the carriers used in the setting-up of the finished product described by the chemists and technicians working for the cosmetics and dietetics industries.
Their real efficacy and the eventual undesirable side effects when coming into contact with the skin areas or the mucous membranes, will be investigated by a huge number of biologists, physiologists and pharmacologists involved in the absorption through the different biologic membranes.
The medical community, comparing their opinions with their colleagues chemists, biologists and physiologists, will discuss why to prescribe and how to use these products.
Because of these considerations, the Symposium will consists of five main sessions:

1. The current knowledge on skin, hair, nail and mucous membranes
2. Percutaneous and mucous absorption: the new control-release carriers
3. Functional food and cosme-ceuticals needs at different age: the-state-of-the-art
4. Botanicals, sea salt and mud in Alternative and Complementary Medicine
5. Innovative medical devices and nutri-cosme-ceuticals in Aesthetic Medicine: present and future market

We have the pleasure to invite you to participate at this happening, as attendee or as a speaker, giving your personal contribute to its success.

CALL FOR PAPERS

Authors who wish to present a paper for poster or oral presentation according to the Symposium topics are requested to forward their one-page abstract to the Symposium Secretariat.
Abstracts should be written in English, typed single space in Times New Roman font, 11-12 point, in an area of 15 x 23 cm (6 x 9 inches) on a single sheet A4 page.
The title should be typed in Capital Letters in 14 point, justified to the left-hand side. Leave 1 line empty and then type the author's names, addresses (underline the name of the presenting author but do not underline addresses), then leave 2 lines empty and begin the text of the abstract.

Authors may either send their abstract by e-mail to iscd@libero.it, as a Word attachment or mail the abstracts on a diskette in Word format to reach the Symposium Secretariat together with a 4 copies. Material should be sent by air mail in a padded envelope that should be marked "do not fold".

Please be advised that authors registering as participants of the Symposium may submit more than one abstract.
The Scientific Committee will make final decisions on the acceptance of abstracts and allocate them to oral or poster presentation.

Presenters of abstracts will be informed by a separate letter regarding the status of their abstract whether it was accepted as an oral or poster presentation. Accepted abstracts will be printed in the book of abstracts and distributed at the symposium.

DEADLINE FOR ABSTRACTS SUBMISSION: SEPTEMBER 30, 2001

Please note that all presenting authors must register

EXHIBITION

A trade exhibition will be held in conjunction with the meeting.
Manufacturers and suppliers of cosmetic and pharmaceutical raw material specialties and medical equipment are invited to present their services , products and literature.
For exhibition space, please contact the Organizing Secretariat:

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LANGUAGES

The official language of the Symposium will be Italian and English. Lectures, discussions and printed material will be in English.
To facilitate exchange of opinions and discussions simultaneous translation in Italian will be available in the main hall only.

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For further information, please contact the
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The 2nd World Conference on Medical Esthetics & Cosmetology

July 19-22, 2002 Beijing, China
Theme: For a Beautiful Life

Date & Venue:
July 19-22, 2002 Beijing

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English

Scientific Topics:
- ✧ Medical Esthetics & Cosmetology
- ✧ Esthetic & Cosmetic Dentistry
- ✧ Esthetic & Cosmetic Surgery
- ✧ Esthetic & Cosmetic Dermatology
- ✧ Technology and the Art of Esthetic & Cosmetic Medicine and Dentistry
- ✧ Esthetic & Cosmetic Traditional Medicine

Registration Fees:

	Early Bird	Later Bird	On-site
Participate	US$250	US$300	US$350
Resident/Student	US$100	US$150	US$200

Accommodations:
There are hotels in Beijing ranging from deluxe to economy. Special room rates for this Conference will be negotiated.

Sponsorship/Exhibition:
Industry members are encouraged to sponsor, exhibit and also stage satellite symposia at the Conference.A separate industrial prospectus will be available from the Conference Secretariat.

Tours:
The pre- and post- conference tours and city tours will be arranged to offer delegates a unique chance to enjoy the oriental scenery and culture and ancient civilizations in China.

Conference Secretariat:
The 2nd WCMEC
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Chinese Medical Association
42 Dongsi Xidajie
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Organized by:

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Chinese Society of Medical Esthetics & Cosmetology

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