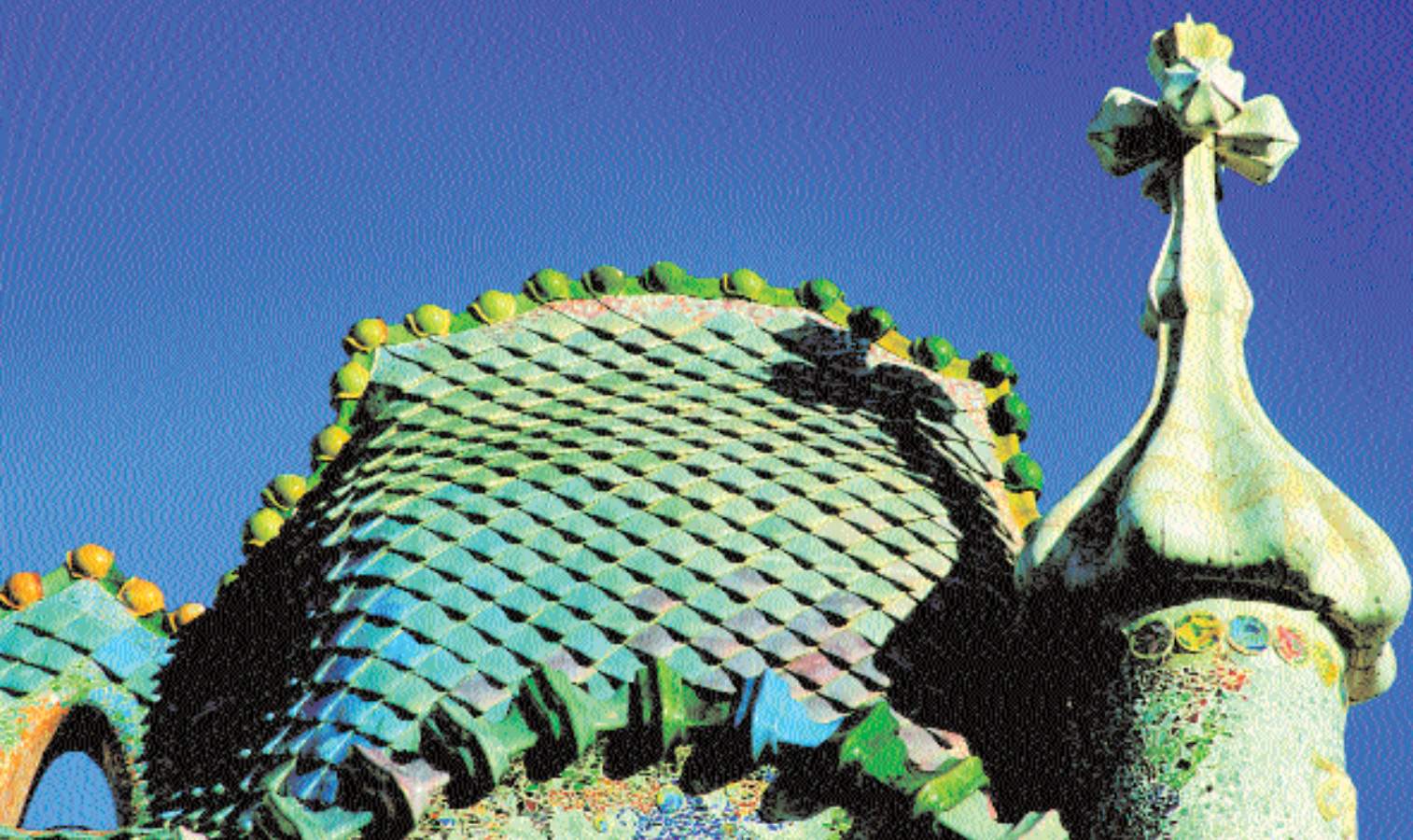


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IMPORTANT NOTICE

**The 17th Ordinary General Meeting (OGM)
of the EADV will be held on:**

**Friday 17th October 2003
in the Palau de Congressos, Congress Centre, Barcelona, Spain
at 12.00 mid day**

In accordance with the statutes of the EADV it is hereby announced
that the 17th Ordinary General Meeting (OGM)
of the European Academy of Dermatology and Venereology
will take place on Friday 17th October 2003
at the Palau de Congressos Congress Centre, Barcelona, Spain.

AGENDA

- 1. Welcome by the President of the Congress Prof. Lecha**
- 2. Welcome by the President of the EADV Prof. Saurat**
- 3. Minutes of the 16th OGM, Prague 4th October 2002**
- 4. Matters arising from the minutes**
- 5. Presidents report**
- 6. Secretary-General's report**
- 7. Treasurers report**
- 8. Statutes**
- 9. Elections**
- 10. OGM Recognition of European Constituent Countries**
- 11. Editors report**
- 12. Congress and Symposia reports**
- 13. Correspondence**
- 14. Any other business**

Frank C. Powell
EADV Secretary-General , June 2003

the muscle. This activity is increasing when the muscle is tensed. In addition, a second study was carried out on two parallel groups of 53 volunteers ($n = 106$, $t = 15$ days) to compare the impact on wrinkle appearance of the selected fragrance compared to a standard fragrance reference incorporated into the same antiwrinkle cream 'Résolution', Lancôme.

Results The selected fragrance is one among several studied, which promotes a decrease ($P < 0.07$) in the muscle tension during the stroop test compared to the vehicle. The clinical test has demonstrated a significant improvement ($P < 0.05$) of parameters relating to wrinkles and skin ageing, i.e. 'makes the skin smoother, makes the skin firmer, restores skin tonus'.

Conclusion This original procedure shows for the first time, the effect a fragrance has on facial muscle relaxation. It contributes to the reinforcement of the anti-wrinkle performance of a cosmetic product. The olfactory sensorial benefit of a selected fragrance enhances significantly the overall performance of a cosmetic product on the skin.

P8-20

Calorie restricted diet and the skin

R. Strumia & E. Colombo

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A calorie restricted diet requires at least 1200 calories a day to be adequate in all essential nutrients. Diets containing fewer than 1200 calories require close medical supervision in an intensive weight management environment. However, a large number of people, mainly women, undergo Very-Low-Calorie Diets (VLCD) without medically supervised programmes. VLCDs do not support adequate protein, vitamins and minerals and are therefore not balanced low-fat weight-reducing diets. To the best of our knowledge, the effect of Very-Low-Calorie-Diet (VLCD) on the skin, hair and nails is little stressed in the literature. Except in severe malnutrition and eating disorders, such as anorexia nervosa and bulimia, exhaustive studies are lacking. An unbalanced calorie restricted diet is usually characterized by a reduction in or exclusion of some foods, combined with an exaggerated intake of low calorie foods such as dark-green vegetables and deep-yellow fruits. Excessive ingestion of carotene does not cause vitamin A toxicity but it does produce carotenaemia (carotene blood levels $> 250 \mu\text{g/dL}$ [$> 4.65 \mu\text{mol/L}$]) which may lead to carotenosis (carotenoderma): the skin becomes deep yellow, especially on the palms and soles. In these patients, who are often young women affected by acne, retinoids must be avoided in order to prevent hypervitaminosis A. Cutaneous alterations caused by deficiency of the water-soluble vitamins B1, B2, B6, C, biotin, B12 and folic acid result in more mucosal alterations and also dry and cracked skin, at times with pruritus. Vegetarians should be considered as the vulnerable group for vitamin B2 and vitamin B6 deficiencies. Iron deficiency is common in girls who flit from one fad diet to another. Low serum ferritin concentrations in women with hair loss have recently been reported. Vegetarians who do not consume eggs or fish have no direct source of eicosapentaenoic (EPA) and docosahexaenoic (DHA) acids. Cutaneous consequences may be dry and anaelastic skin, erythema, dermatitis, psoriasiform and acneic dermatosis. In evaluating young women who complain of dry skin, pruritus, cheilitis and hair loss, we suggest looking at their palms and soles, in order to verify carotenosis, and investigating their dietary habits.

FURTHER READING

- 1 Rushton DH. Nutritional factors and hair loss. *Clin Derm* 2002; **27**: 400–8.
- 2 Barthelemy H, Chouvet B, Cambazard F. Skin and mucosal manifestations in vitamin deficiency. *J Am Acad Dermatol* 1986; **15**: 1263–74.
- 3 Vudhivai N, Ali A, Pongpaew P, Changbumrung S, Vorasanta S, Kwanbujan K, Charoenlarp P, Migasena P, Schelp FP. Vitamin B1, B2 and B6 status of vegetarians. *J Med Assoc Thai* 1991; **74**: 465–70.
- 4 Axelrod AE. Role of the B vitamins in the immune response. *Adv Exp Med Biol* 1981; **135**: 93–106.
- 5 Denke MA. Metabolic effects of high-protein, low-carbohydrate diets. *Ame J Cardiol* 2001; **88**: 59–61.

P8-21

Injection of botulinum toxin A for the treatment of mimetic disorders and facial lines

E. Suljagic,* N. Hadžigrahic,* N. Sijercic* & E. Tupkovic†

*Medical Faculty, Department of Dermatovenerology, Tuzla, Bosnia and Herzegovina, †Medical Faculty, Department of Neurology, Tuzla, Bosnia and Herzegovina

The purpose on this clinical investigation is to confirm the efficacy of eliminating facial wrinkles and kinetic disorder (blepharospasm) by injecting botulinum toxin A into mimetic muscles. Twenty-two patients were injected with Dysport – 12 patients in lateral part of orbicularis oculi, six – in the corrugator superciliaris, 10 – in the frontalis muscles, and four patients in the superior part of orbicularis oculi. Dilution was obtained by adding 2.5 mL preservative-free saline to 500 IU of Dysport. The dose used varied according to the patients. The severity of wrinkles and intensity of muscle contraction (facial expression) were taken into account. The results were documented by photographs, videotape and electromyographies. The paralysis obtained in the mimetic muscles was effective 4 months in 12 patients, 5 months in six patients, and 6 months in four patients. To preserve the results 16 patients (72.72%) demanded a second infiltration to achieve satisfactory results. Neither local or systemic side-effects were noted, except transitory eyebrow ptosis in two patients. We obtained satisfactory improvement in facial mimetic wrinkles.

P8-22

Combination of chemical peel (TCA) and microdermoabrasion for acne scars

E. Suljagic, N. Hadžigrahic, & N. Sijercic

Medical faculty, Department of Dermatovenerology, Tuzla, Bosnia and Herzegovina

Chemical peel is a resurfacing procedure that has been part of dermatology for almost 50 years. In our study we combined chemical peel (TCA 35–50%) and new technique microdermoabrasion for acne scars. We treated eight patients with acne fibrotic and ice pick scars on the face with TCA peel, and nine patients with combined therapy (TCA peel and microdermoabrasion). We followed patients after one week, six weeks, 12 weeks, and six months (photo, punch biopsy). Our study showed moderate improvement in the clinical scores in the acne patients treated with TCA peel only. With combined therapy we achieved better results according clinical and histological scores. Our study have shown that the depth of tissue necrosis increased if the microdermoabrasion treatment is made prior the chemical peel. We used TCA concentrations necessary to remove epidermis and superficial dermis completely to allow re-epithelialization by normal keratinocytes.

P8-23

Ceramides from lanolin for skin care and treatment

L. Coderch, J. Fonollosa, M. de Pera, M. Martí, A. de la Maza & J. L. Parra
 Instituto de Investigaciones Químicas y Ambientales de Barcelona. IIQAB-CSIC, Barcelona, Spain

The ceramides play an essential role in maintaining and structuring the lipid barrier of the stratum corneum. They are widely used in different products for treatment and skin care. Analysis of the polar fraction of wool wax and anhydrous lanolin showed a small content in ceramides between 2 and 4%. Lanolin fractions with 5–15% in ceramides were obtained by solvent partition with hexane and methanol or methanol/water. Liposomes made up with these fractions, sometimes supplemented with other stratum corneum lipids, were topically applied and their effects were evaluated by non-invasive bioengineering techniques such as TEWL and skin capacitance. Results show that these samples have the ability to accelerate the repair of water barrier functions of SLS disturbed skin.

CERAMIDES FROM LANOLIN FOR SKIN CARE AND TREATMENT

Luisa Coderch, Jordi Fonollosa, Montse de Pera, Meritxell Martí, Alfons de la Maza and José Luis Parra

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ABSTRACT Ceramides play an essential role in maintaining and structuring the lipid barrier of the stratum corneum [1]. They are widely used in different products for dermatological treatment and skin care. Analysis of the polar fraction of wool wax and anhydrous lanolin showed a small content in ceramides between 2 and 4%. Lanolin fractions with 5 to 15% in ceramides were obtained by solvent partition with hexane and methanol or methanol/water. Liposomes made up with these fractions, supplemented with other stratum corneum lipids, were topically applied and their effects were evaluated by non-invasive bioengineering techniques such as TEWL and skin capacitance.

Results show that these samples have the ability to accelerate the repair of water barrier function of SDS disturbed skin. These formulations reinforce the skin barrier integrity improving its water-holding capacity and protecting the skin against detergent-induced dermatitis. These effects are similar to those conferred by synthetic ceramides currently used in cosmetics or dermatology to enhance the function of the protective barrier of the skin provided by the stratum corneum. Therefore, aqueous formulations with lanolin fractions rich in ceramides could be suitable for designing new pharmaceutical or cosmetic products for skin care and treatment.

LANOLIN

Wool wax is secreted by the sebaceous glands of the sheep and suit is the dry residue of the secretions from sudoriferous glands. Bleached and purified wool wax is sold as lanolin.

Chemical lanolin composition [2, 3]:

- > 75-90% mono- and di-esters waxes
- > 1-8% free fatty acids
- > 6-12% free fatty alcohols and sterols
- > and more polar compounds alleged phospholipids are also present



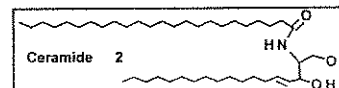
AIM OF THIS WORK

Determining the presence of ceramides in wool wax, lanolin or lanolin fractions → to obtain new fractions enriched in ceramides. Study their possibility to be structured as liposomes.

Topical application of these formulations are also performed to know their effect on the skin barrier function

CERAMIDES

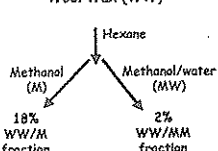
Structurally, ceramides consist of a long-chain amino alcohol (sphingoid base), covalently linked via an amide linkage to a fatty acyl chain



Ceramides promote beneficial effects in pharmaceutical and cosmetic formulations [1, 4, 5].

1. - WOOL WAX FRACTIONATION

Wool Wax (WW)



2. - A TLC-FID procedure was used to obtain a quantification of the lipids from different products derived from lanolin [6]:

% wt	Wool wax	Purified anhyd. Lanolin	Lanolin oil (Stellanol)	Lanolin oil (Lanor Crystal)	Lanolin alcohols (Lanor A)	WW polar fraction in methanol	WW polar fraction in methanol/water
	WW	LAN	LOI-1	LOI-2	LOL	WW/M	WW/MW
Waxes	48.4	54.4	43.6	48.9	1.8	34.5	3.2
Fatty acids	10.3	12.7	17.9	20.7	10.0	11.7	2.3
Fatty alcoh.	4.4	6.1	4.4	5.8	43.9	14.6	1.4
Sterols	2.6	3.4	3.4	3.9	30.6	6.3	8.2
Ceramide II	1.1	0.4	0.5	0.5	0.0	1.7	5.7
7OH.choleste.	1.3	1.1	1.2	1.3	4.4	2.4	6.0
Cer III/IV	1.0	0.8	0.8	0.9	1.2	1.8	5.3
Cer VI(b)	1.7	1.0	1.1	1.2	1.3	2.3	4.8
Cerebrosides	2.6	2.2	2.4	3.1	2.5	4.1	5.9
%lipid anal.	73.3	82.1	72.3	86.3	95.6	79.3	42.8
% ceramide	3.7	2.3	2.4	2.6	2.5	5.8	15.8

Industrial lanolin < 4% of ceramides

WW/M and WW/MW > 5% of ceramides

3. - LIPOSOME PREPARATION

SC liposomes: 40.0% wt Ceramides (type III, Cosmoform)

- 25.0% wt Cholesterol
- 25.0% wt Palmitic acid (Merck)
- 10.0% wt Cholesterol sulphate (Sigma)



WW/MW liposomes: 40.0% wt polar wool wax fraction on methanol/water

- 25.0% wt Cholesterol
- 25.0% wt Palmitic acid (Merck)
- 10.0% wt Cholesterol sulphate (Sigma)

Composition of SC and WW/MW stable liposomes

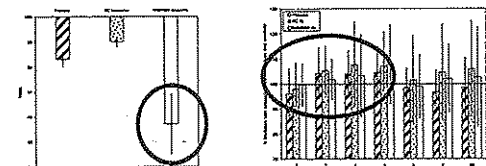
4. - EFFECT OF LIPOSOMES ON UNDISTURBED SKIN. NON-INVASIVE BIOPHYSICAL MEASUREMENTS [7, 8]

SUBJECTS: Seven healthy Caucasian volunteers aged between 25 and 57 years

TEWL: Sensitive index of skin barrier integrity → Tewometer TM120 (Courage & Khazaka)

SKIN HYDRATION: skin capacitance in arbitrary units → Corneometer CM820 (Courage & Khazaka)

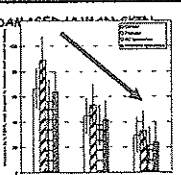
A total of 8 applications of SC and WW/MW liposomes were made over 10 days in intact areas of the forearms, and a placebo was also applied.



WW/MW liposomes ↓ 5% TEWL SC and WW/MW liposomes ↑ 7% hydration

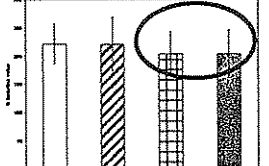
6. - RESTORATION OF DETERGENT-DAMAGED SKIN

The repairing effect of topical application (10 days) of the liposome samples after insulting the skin with a 2% SLS solution was also investigated.

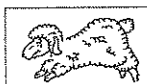


5. - PROTECTION OF HEALTHY HUMAN SKIN AGAINST DETERGENT INDUCED CONTACT DERMATITIS

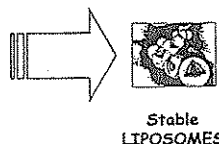
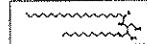
After the previously treatment, the areas treated with the different liposome samples and the control area, were subjected for 24 hours to an aqueous solution of sodium lauryl sulphate (SLS) using an occlusive patch. The resulting degree of irritation was evaluated 24h after removing the patch by measuring TEWL.



CONCLUSIONS



LANOLIN fractions with 5 to 15% in ceramides



- ↑ Hydration of the skin
- ↓ Transepidermal water loss
- ↑ Protection against detergent induced contact dermatitis
- ↑ Restoration of detergent damaged skin

Potential interest of LANOLIN FRACTIONS enriched in ceramides in Cosmetic / Dermopharmaceutical fields

REFERENCES

- 1- Coderch, L., López, O., de la Maza, A., Parra, J. L., Ceramides and skin function: *Am. J. of Clinical Dermatology*, **3**, 107-129, 2003.
- 2- Clark, E.W., The history and evolution of lanolin. The lanolin book. Ed. Paul Beiersdorf, 1999, pp17-49.
- 3- Morris, T.A. and Truter, E.V., The alleged phospholipid of wool wax: *J. Appl. Chem.*, **20**, 389-391, 1970.
- 4- de Pera, M., Coderch, L., Fonollosa, J., de la Maza, A., Parra, J.L., Effect of internal wool lipid liposomes on skin barrier. *Skin Pharmacol. Appl. Skin Physiol.*, **13**, 188-195, 2001.
- 5- Coderch, L., de Pera, M., Fonollosa, J., de la Maza, A., Parra, J.L., Efficacy of stratum corneum lipid supplementation on human skin. *Contact Dermatitis*, **47**, 139-146, 2002.
- 6- Coderch, L., Fonollosa, J., Martí, M., Garde, F., de la Maza, A., and Parra, J.L., Extraction and analysis of ceramides from internal wool lipids. *J. Am. Oil Chem. Soc.*, **79**, 1215-1220, 2002.
- 7- Rogiers, V. and the EEMCO Group, EEMCO Guidance for assessment of Transepidermal Water Loss in cosmetic sciences. *Skin Pharmacol. Appl. Skin Physiol.*, **13**, 117-128, 2001.
- 8- Berardesca, E. and the EEMCO Group, EEMCO Guidance for assessment of stratum corneum hydration: electrical methods. *Skin Res. Tech.*, **3**, 126-132, 1997.