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STUDIES LIST
SEBUFIX F 16Ġ
CORNEOFIX F 20Ġ

P.M. Clarys, A.O. Barel, **Sebumetry: A comparison between Lipid Collection Techniques.** Skin Research and Technology, Vol.2, No.4, Nov.1996

Recently, several methods have been developed for the collection of skin surface lipids. We compared 3 of those measurement techniques: the Sebutape, the Sebufix, and the Sebumeter. Lipid sampling with the Sebufix and with the Sebumeter takes only 30 seconds while lipid sampling with the Sebutape takes 1 hour. As demonstrated by several authors application of a film on the skin surface may interfere with several skin properties such as skin temperature, skin hydration, and skin surface water loss. Our experimental set was designed in order to make a comparison between the 3 measurement techniquesand in order to evaluate the effect of Sebutape application on the above skin parameters. Comparison of the lipid quantification with the 3 techniques delivered a good correlation. The Sebutape seems to have no or only a minor influence on skin temperature and TEWL. The hydration state of the statum corneum increased significantly during the Sebutape application.

W.D. Becker, J.S. Bajor, K. Hoyberg, S. Hillmer, D. Thiboutot, H. Knaggs, **Measurement Of Human Surface Sebum Levels.** The Journal of Investigative Dermatology, Vol. 110, No. 4, April 1998.

Thomas Förster , Henkel KgaA, **Cosmetic Lipids and the Skin Barrier,** 2001 by Marcel Dekker

There is no doubt that the application os cosmetic lipids has many positive effects on the structure and function of the skin. These effects are pleiotropic, caused either by direct interaction with the epidermis, particularly the stratum corneum, or indirectly, by influencing the physiologic, homeostatic condition of the skin.

C.Piérard-Franchimont, G.E.Piérard, **Postmenopausal Aging of the Sebaceous Follicle: A Comparison between Women Receiving Hormone Replacement Therapy or Not**. Dermatology 07/2002

The endocrine control of sebaceous follicles is complex in women. During aging, a decline in sebum output is often experienced. However, some women report increased seborrhea after the menopause.

N. Piccardi, Jean-Chr. Choulot, M. Philippe, **Butyl avocadate : Managing Hyper-Seborrhoea**, Personal Care, November 2004.

Hyper-seborrhoea, acne and alopecia are among the most common diseases encountered by dermatologists in daily practice. These pathologies are in part related to the hyper-activity of the 5-

alpha reductase (5-αR), the enzyme that metabolises (Fig. 1) testosterone into 5α-dihydrotestosterone (5α-DHT), a major potent androgen in human skin.

K. de Paepe, V. Rogiers, **Corneofix F20®, a new technology to define skin desquamation,** Presentation on the ISBS Meeting 2005 in Phildelphia, USA.

The aim of the present study was the evaluation of a newly marketed methodology for the characterization of the skin desquamation index (DI) being an important parameter for the evaluation of overall skin condition.

J.W. Fluhr, M. Breternitz, M. Flach, P. Elsner, **Acute eperimentally induced barrier disruption by tape stripping is influenced by pressure, time and anatomical location: Integrity and Cohesion assessed by sequential tape stripping,** Presentation on the ISBS Meeting 2005 in Phildelphia, USA, abstract.

Tape stripping is a well-known procedure in stratum corneum physiology research. Adhesive films are pressed to the surface of SC and then removed. The superficial layers of SC adhere on the film and are accessible for further investigations. Although this method is widely used, only few information about standardization are known.

Hristo Dobrev, **Clinical and instrumental study of the sebum regulation efficacy of REGUĠ-SEB**, Poster Presentation at the EADV in London, October 2005.

Excessively oily facial skin is due to overactive sebaceous glands and can occur in both males and females. The skin is greasy and shiny, with large open pores, feels unpleasant and may be a serious cosmetic problem. Moreover, this type of skin is sensitive and much more prone to acne and seborrhoeic dermatitis. That is why the control over the excessive oiliness is very important.

Electronically Av.

THE EFFECTS OF TOPICALLY APPLIED MATRIXYL, NATURAL GRAPE SEED AND AVOCADO OILS ON SKIN SURFACE, HYDRATION AND ELASTICITY

H. Dobrev

Department of Dermatology, Medical University, Plovdiv, Bulgaria

Background: Matrixyl is a lipophilic pentapeptide that stimulates the collagen synthesis by fibroblasts in the skin. The grape seed extract is rich in flavonoids which are powerful antioxidants. Avocado oil consists predominantly of unsaturated fatty acid glycerides, vitamins and minerals, and has good emollient properties. **Aim:** To evaluate the effects of two 1% Matrixyl, 1% grape seed oil and 2% avocado oil containing creams on aged facial skin using *in vivo* skin bioengineering techniques.

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EVALUATION OF THE EFFICACY OF A ROOIBOS EXTRACT CONTAINING ANTIWRINKLE CREAM

H. Dobrev

Department of Dermatology, Medical University, Plovdiv, Bulgaria

Background: Rooibos plant possesses scientifically proven anti-oxidative, anti-allergic, antimicrobial and anti-inflammatory features. **Aim:** To evaluate the efficacy of a Rooibos extract containing cream on aged facial skin using *in vivo* skin bioengineering techniques. **Methods:** Measurements were carried out on 21 healthy female volunteers (from 35 to 63 years old) before and after twice-daily applications for 4 weeks. Images of the skin surface at eye corners were obtained with video camera Visioscope and then analyzed with the software SELS (Surface Evaluation of the Living Skin). Skin mechanical properties on five anatomic regions (forehead, eye corners and cheeks) were measured with a suction device Cutometer SEM 474. In addition, a subjective evaluation questionnaire regarding the organoleptic characteristics, tolerance and efficacy of the product was given to the volunteers.

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TREATMENT OF ACNE WITH A NEW TOPICAL PREPARATION. A CLINICAL AND INSTRUMENTAL STUDY.

H. Dobrev
Department of Dermatology, Medical University, Plovdiv, Bulgaria

Background: Sepicontrol A5 is a cosmetic active ingredient designated to improve the appearance of oily, acne prone facial skin. **Aim:** To evaluate the sebum regulation activity, clinical efficacy and safety of a 3% and 4% Sepicontrol A5 containing cream and gel in subjects with mild to moderate acne.

Electronically Av

Clinical and instrumental study of the sebum regulation efficacy of REGU® -SEB

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Introduction

Excessively oily facial skin is due to overactive sebaceous glands and can occur in both males and females. The skin is greasy and shiny, with large open pores, feels unpleasant and may be a serious cosmetic problem. Moreover, this type of skin is sensitive and much more prone to acne and seborrhoeic dermatitis. That is why the control over the excessive oiliness is very important.
Oily facial skin

Sebaceous glands activity is stimulated by the androgen hormones. Testosterone arising from the blood circulation is converted in the skin to its more potent form, dihydrotestosterone, by the action of the enzyme 5 alpha-reductase. The inhibition of this enzyme can result in effective reducing sebum production (1).

Electronically Av

Nicht invasive Testverfahren am behaarten Kopf

Hagen Tronnier10. MFDK München, 04.12.2004 (PPT)

Enleitung *Messung der (seborrhoischen) Kopfschuppung ;*Photo-Trichogramm; Messung von Haardichte und –qualität

EVALUATION OF THE EFFICACY OF A ROOIBOS EXTRACT CONTAINING ANTIWRINKLE CREAM

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THE EFFECTS OF TOPICALLY APPLIED MATRIXYL, NATURAL GRAPE SEED AND AVOCADO OILS ON SKIN SURFACE, HYDRATION AND ELASTICITY
H. Dobrev

Background: Matrixyl is a lipophilic pentapeptide that stimulates the collagen synthesis by fibroblasts in the skin. The grape seed extract is rich in flavonoids which are powerful antioxidants. Avocado oil consists predominantly of unsaturated fatty acid glycerides, vitamins and minerals, and has good emollient properties.

A new and sensitive method to assess the NMF content of Stratum Corneum in vivo - Evaluation of a topical moisturizing product; *S Sisalli1, N Voisin, F Venturoli, A Adao, S Gardinier, M Isoir, J Jacqueline-Bessière, D Mougin*.; Ifscc Barcelona 2008

As far as the existence of the Natural Moisturizing Factor has been known, the need for in vivo and non invasive methods to evaluate the NMF content has been required. The purpose of this paper is to present a new method for the analysis of some NMF compounds sampled by tape stripping. This method allows the simultaneous determination of 2-pyrrolidone-5-carboxylique acid (PCA) and of the 3 main amino acids of the NMF : SERine, GLYcine and ALAnine. It also allows, in the same time, the determination of glycerol (GOL) content, which was recently underlined as an important component in the understanding of cutaneous hydration

*Z. D. Draelos, E. Baltas****;*** **FP1448: SKIN BARRIER AND DESQUAMATION IN PATIENTS WITH MILD PLAQUE PSORIASIS IS IMPROVED WITH THE USE OF A GENTLE MOISTURIZING CREAM;** Abstract; EADV Paris 09/2008;

Psoriasis is a disorder characterized by faster than normal skin growth and replacement. The result of this rapid skin growth and replacement is a build-up of red, thickened areas with a scaly appearance. The most commonly affected areas are the scalp, elbows, knees and back. These plaques are often dry and non-pliable areas on the skin that can be a source of pain and/or discomfort to affected individuals. Moisturization of these areas may provide some relief by increasing hydration.

Hristo Dobrev; **Clinical and instrumental study of the efficacy of a new multi-action topical product in acneic skin;** Household and Personal Care TODAY, n1/2009

Many people suffer from oily, acne prone skin. This type of skin is characterized by increased oily sevretion, greasy looking rough skin surface with dilated pores, comedones and tendency to inflammation manifested by erythema, papules and pustules. It can be observed in both men and women and often is a serious cosmetic problem. Oily skin and acne formation are related to the overproduction of sebum and abnormal keratinisation of the sebaceous follicle epithelium stimulated by male sex hormones (androgens)

Sainhillier JM, Mac S, Tarrit C, Mermet P, Mougin D, **Assessment of the Nourishing Effect of a Lip Balm. Exploratory Study;** Société Skinexigence SAS CHU Saint Jacques, Besancon, France;

The main characteristics of the lips are their fragility and sensitivity to dryness and exposure to UV. This phenomenon is an issue for many people, more specifically with the presence of chapped lips in winter. The aim of this study was to objectivate and illustrate the nourishing effect off a lip balm in the winter season (November to December 2008) after repeated applications during 28 days.

Sophie Gardinier, Sabine Guéhenneux, Julie Latreille, Christiane Guinot, Erwin Tschachler; **Variations of skin biophysical properties after recreational swimming;** Skin Research and Technology 2009; 15; pp. 427-432

Sensations of itching and skin tightness are frequently reported after recreational swimming in pool water. Our objective was to measure the potential changes occurring at the skin surface under

such conditions. Nine women participated in this study, which consisted of two periods. During a 4-day control period, basal biophysical skin parameters were assessed every morning. On the first day, measurements were also performed in the afternoon. The second study period followed the same study design as for the control period, except that, on the first day, women swam for 1 h in a public pool, between the measurements performed in the morning and the afternoon.

Hristo Dobrev, **Clinical and instrumental study of the efficacy of a new multi-action topical product in acneic skin,** Household and Personal Care TODAY, no. 1/2009

Many people suffer from oily, acne prone skin. This type of skin is characterized by increased oily secretion, greasy looking rough skin surface with dilated pores, comedones and tendency to inflammation manifested by erythema, papules and pustules. It can be observed in both men and women and often is a serious cosmetic problem.

Hristo Dobrev; **Products for Impure, Acne-Like Skin;** J. Fluhr (ed.), Practical Aspects of Cosmetic Testing, Springer-Verlag Berlin Heidelberg 2011

Many people suffer from impure, acne-like skin. This type of skin looks greasy and glossy, rough with enlarged pores, and has a tendency to develop comedones, pimples, and pustules. It feels unpleasant and may be a serious cosmetic problem. The effective control over the impure skin requires daily application of multifunctional cosmetic products for cleansing and intensive care of the skin. Market products should have a proven effect. Testing on human volunteers using sensorial self- and expert evaluation, instrumental skin bioengineering techniques, and questionnaires for quality of life assessment are the preferred ways to prove products claims.

Christiane Uhl, Diana Khazaka, C+K electronic GmbH; **Techniques for globally approved skin testing;** Personal Care April 2013

In efficacy testing and claim support for cosmetic products, objective measurement systems became indispensable long ago, especially since subjective clinical assessments are often prone to bias and inter-observer variation. Without suitable instrumentation it is close to impossible to determine what a product is really doing for the skin. Those objective measurement methods and subjective evaluations are mutually dependent. No measurement can be performed without the subjective evaluation of the results by the user of such instrumentation. However, a pure subjective evaluation of the skin without appropriate measurement techniques is not able to achieve accurate results either. This relationship becomes clearer when looking for example at skin colour measurements. Subjectively, the human brain cannot process slight changes in colour, especially when the colours are not viewed side by side, but at different points in time. Instrumental measurement however will clearly detect such slight changes. The achieved result must then be interpreted in context with the expected outcome or the hypothesis. For this, you will always need a knowledgeable and experienced person because ‘a fool with a tool is still a fool’, as the late Albert Kligman used to say. This relationship between objective measurement and subjective evaluation is not only true for the determination of differences in skin colour, but also for all other skin measurement parameters important for the cosmetic industry.

Y. Gao, X. Wang, S. Chen, S. Li, X. Liu; **Acute skin barrier disruption with repeated tape stripping: an in vivo model for damage skin barrier;** Skin Research and Technology 2013; 19: 162-168

Purpose: To establish a model of standardized acute barrier disruption, investigate the response of normal human to repeated tape stripping, and analyze the change of damaged skin with non-invasive examination techniques for skin, such as TEWL and squamometry. Methods: Repeated tape stripping with corneofix was applied on three different anatomical sites, the measurement of TEWL was performed on the baseline and after every 5 strips. Then the samples of corneofix were analyzed using Visioscan VC98 and squamometry.

Henk Hoeksema, Marie De Vos , Jozef Verbelen, Ali Pirayesh, Stan Monstrey; **Scar management by means of occlusion and hydration: A comparative study of silicones versus a hydrating gel-cream** ;www.elsevier.com/locate/burns JBUR-4018; No. of Pages 12

Abstract: Despite the worldwide use of silicones in scar management, its exact working mechanism based on a balanced occlusion and hydration, is still not completely elucidated. Moreover, it seems peculiar that silicones with completely different occlusive and hydrating properties still could provide a similar therapeutic effect. The objective of the first part of this study was to compare the occlusive and hydrating properties of three fluid silicone gels and a hydrating gel-cream. In a second part of the study these results were compared with those of silicone gel sheets. Tape stripped skin was used as a standardized scar like model on both forearms of 40 healthy volunteers. At specific times, trans epidermal water loss (TEWL) and the hydration state of the stratum corneum were measured and compared with intact skin and a scar-like control over a 3–4 h period. Our study clearly demonstrated that fluid silicone gels and a hydrating gel-cream have comparable occlusive and hydrating properties while silicone gel sheets are much more occlusive, reducing TEWL values far below those of normal skin. A well-balanced, hydrating gel-cream can provide the same occlusive and hydrating properties as fluid silicone gels, suggesting that it could eventually replace silicones in scar treatment.

G.E. Piérard, C. Piérard-Franchimont, S. Piérard; **Visioscan-Driven ULEV Method;** Non Invasive Diagnostic Techniques in Clinical Dermatology; Springer Berlin Heidelberg 2014; ISBN 978-3-642-32108-5

Introduction: Melanocytes and their melanins govern the phototype-related color palette of the skin. Indeed, the color palette of the skin largely depends on the molecular nature and amount of melanins (eumelanin and pheomelanin) and on the size, shape, and distribution of melanosomes produced by melanocytes and transferred into keratinocytes. Such combinations define what could be called the individual melanotype. The epidermal melanin unit refers to a microscopic functional entity composed of one single melanocyte and its adjacent keratinocytes into which the melanosomes are transferred. Chronic ultraviolet (UV) light exposures represent positive stimulatory signals to the epidermal melanin units. In such instance, both the active melanocytes are increased in number, and each individual melanocyte is stressed to produce more melanins. In addtion, melanosome transfer from melanocytes to adjacent kerationocytes is boosted through the intervention of the protease-activated receptor 2 [1].

K. De Paepe, Y.V. Heyden, V. Rogiers; **Biophysical Assessment of Skin Desquamation and Scaliness Using Tape Strips and Adhesive Discs;** Non Invasive Diagnostic Techniques in Clinical Dermatology; Springer Berlin Heidelberg 2014; ISBN 978-3-642-32108-5

Introduction: The outer part of the human skin is the epidermis, which consists of different layers that continuously renew themselves due to cell proliferation and differentiation, finally leading to the formation of the stratum corneum (SC). Eventually, flat corneocytes desquamate from the surface as single cells or small scales. In healthy skin, the total process takes approximately 1 month [13]. The SC forms an effective barrier against transepidermal water loss. Indeed, corneocytes are tightly joined by lamellar lipid bilayers – mainly consisting of ceramides free fatty acids, and cholesterol – which are covalently bound to cell membrane proteins [27].

Dr. Leslie Schlüter; **Reinheit aus der Natur;** Cossma 5 – 2014

Es gibt zwei Trends, die bei kosmetischen Produkten zurzeit sehr präsent sind: zum einen ein „reiner, ebenmäßiger Teint“ und zum anderen „Nachhaltigkeit“. Den Wunsch nach einem ebenmäßigen Teint hat es, denken wir nur einmal an das Grimmsche Schneewittchen mit seiner Haut „so weiß wie Schnee“, schon immer gegeben. Und da es immer wichtiger wird, Ressourcen zu erhalten und zu schonen, rückt der Aspekt der Nachhaltigkeit beim Konsumenten immer stärker ins Bewusstsein. Eine Produktkategorie, die das Thema Ebenmäßigkeit und mehr Leuchtkraft des Teints aufgreift, sind

die BB, CC, DD usw. Cremes. Mittlerweile findet man auch abseits dieser getönten Hautpflegevertreter immer häufiger Produkte im Regal, die genau dieselben Effekte versprechen.