

# THE INFLUENCE OF SPA PRODUCTS TREATMENT FOR SKIN-CARE

Retno I.S. Tranggono, MD\*

\*President of The Indonesian Society of Cosmetics Scientists

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## 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.

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## 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 conducive 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 Cutaneous 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 been 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 States 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)

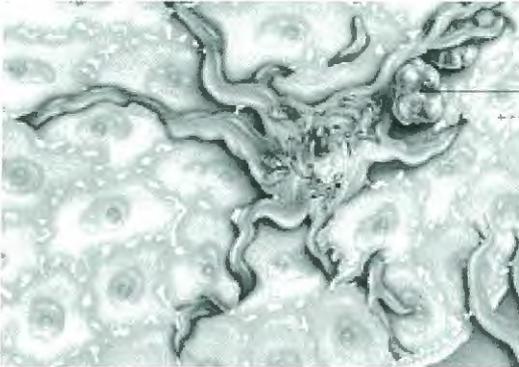


Figure 1

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 genera-

ted. (Fig.2)

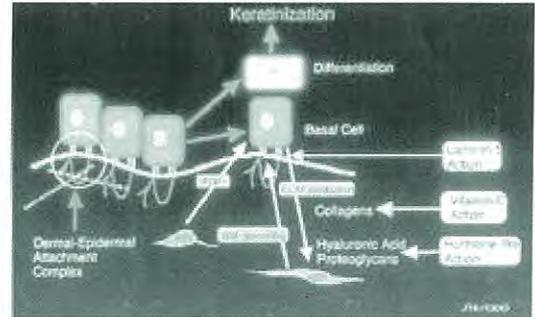


Figure 2

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 et al (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).

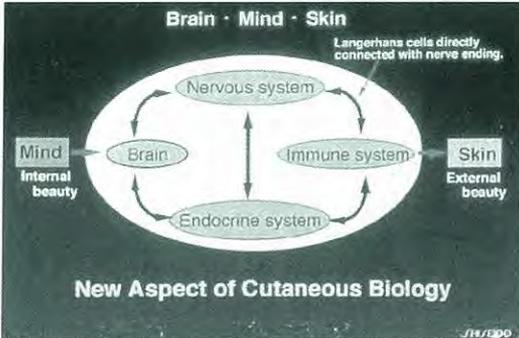


Figure 3

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 cortisol 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. Cosmeceuticals (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]

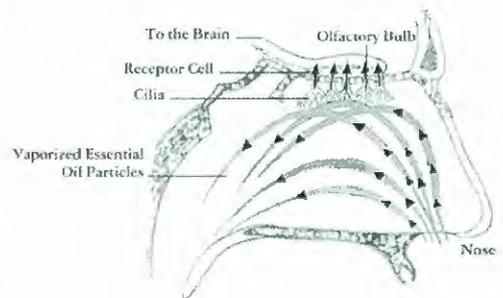


Figure 4

## 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 inducing 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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### Author Address:

Retno I.S. Tranggono MD.  
Jl Radio Dalam No. 48  
Jakarta 12140  
P.O. Box 6582/JKSDW  
Jakarta 12065  
Fax. +620217226674