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Innovative Ingredients Of Facial Cosmeceuticals (IIFC's)

Tarun Thakur

Department Of Pharmaceutical Sciences
Sardar Bhagwan Singh Post Graduate Institute Of Biomedical Sciences And Research
Balawala, Dehradun, Uttarakhand, India

Digvijay Gahtory

Department Of Pharmaceutical Sciences
Sardar Bhagwan Singh Post Graduate Institute Of Biomedical Sciences And Research
Balawala, Dehradun, Uttarakhand, India

Dr. Luv Kush

Department Of Pharmaceutical Sciences
Sardar Bhagwan Singh Post Graduate Institute Of Biomedical Sciences And Research
Balawala, Dehradun, Uttarakhand, India

Abstarct:

The facial cosmetics have attained the respectable status of life-style modifiers. Their prime aim is to enhance beauty, handsomeness and charming look. Recently innovative ingredients of modern facial formulations emerged as promising advancement in facial cosmetology. They are herbal oils, animal milk, mineral containing clays and honey. Their special cosmetical qualities have formulative potentiation .

1.Introduction

The cosmetics change the facial appearance. The natural products have become an integral part of modern cosmetic formulations. Most of the innovative ingredients belong to herbal oils, animal milks, minerals containing clays and honey. The herbal oils have excellent emollient, anti-inflammatory and rubefacient properties. The facial scrubs are an effective skin cleaners. Honey face packs are beauty aids. Milk is an emulsion of great cosmetical potential. The animal milks are the recent cosmetical arrivals for betterment of facial hygiene and health, IIFC's are the natural solutions for the problems of deficient facial comeceutical formulations. Their cosmetical qualities are encouraging for the facial health promoting efficacy.

2.Theoretical methodology

The cosmeceutical rationalizations of innovative ingredients were studied.

2.1.Herbal Oils

The usage of herbal oils in modern facial cosmetics is rapidly going up. The ayurvedic formulations exploited their cosmeceutical significance. They have desirable bioactions for facial creams and oils. The special qualities of herbal oils are enumerated below

1. Almond oil¹:
 - good skin conditioner and promoter of young looking complexion
2. Apricot Kernel oil¹:
 - Moisturizing, nourishing and revitalizing properties give superb facial charm
3. Borage oil (Borago officinalis)²: It is rich in gamma linolenic acid that the body converts to prostaglandin which has anti-inflammatory properties and also acts as blood thinner and blood vessel dilator (PGEI). This conversion is catalyzed by vitamin -C , Mg⁺⁺, Zn⁺⁺, and B-vitamins. It is useful as
 - Anti-seborrheic dermatitis agent
 - Horomone balancer therefore effective ingredient of anti-acne, pimples and blemishes

- Anti-inflammatory agent thus prevents eczema and dermatitis
 - It has polyunsaturated essential fatty acids which are essential for structure and flexibility of cell membrane, therefore play important role in the construction of the epidermal lipid barrier which normalizes trans epidermal water loss.
 - It contains antioxidants (vitamin-C), tannis – mild astringent action has slight tightening effect on skin
4. Grape seed oil¹:
 - Mild astringent property helps in tightening and toning the skin which has remedial effect for acne and skin complains.
 - Regenerative and moisturizing qualities keep facial skin look fresh and young
 5. Ginger oil¹ :
 - Bactericidal – prevent facial infection
 6. Jasmine oil¹:
 - Used in creams or lotion for reducing stretch marks and scars on the face
 7. Jojoba oil³:
 - Highly regenerative
 - Very good skin-toner and nourishment
 - The chemical resemblance to human sebum makes it a natural balancer of the facial skin by forming non-greasy film that holds moisture in while controlling the flow of sebum
 - It does not clog pores but regulates acne formation
 - Potentates natural acids of skin which are essential for anti-bacterial action
 - Superb 100 years shelf-life has formulation advantage
 - Very effective in psoriasis and eczema
 - Reducer of age related wrinkles
 8. Lemon peels and oil¹:
 - Antioxidants actions of vitamins A,B and C
 - Rubefacient action sorts out cellulose and helps to reduce acne.
 9. Orange oil¹:
 - Good skin tonic – detoxify congested skin
 - Anti-dermatitis and anti-acne action
 - Support collagen formation for healthy young facial look
 10. Rose oil¹:
 - Enhancer of hydration and moisture retention
 - It is the finest beauty tonic
 11. Rose water¹:
 - It is a by-product of rose essential oil
 - It is perfect after facial cleanings
 12. Sandalwood oil¹:
 - Potent anti-aging skin care action due to wonderful moisturizing and hydrating properties.
 - Toning effect fights oily facial skin
 13. Walnut oil¹:
 - Facial healing effect for facial skin problems

2.2.Facial Scrubs⁴

A scrub is a gel that contains many supplements and vitamins and is used to soften the upper skin layers. They are of two types:

- Herbal scrubs have pits of apricots and peaches
- Mineral scrubs contain clay kaolin, volcanic pumice

Natural scrubs are effective skin cleansers. They remove dead skin cells. Herbal face packs smooth the structure of epidermis. Mineral scrubs have micro elements which reduce the wrinkles and soften skin. The large proportion of calcium and magnesium give healthy look to skin. Natural scrubs containing anti-oxidants (vitamin-C, jojoba oil) promote healthy and young appearance of facial skin. Dried lemon and orange peels regulate oil secretion and make-up the skin color livelier.

2.3.Honey Cosmetics⁵

Honey is nutritional gift of the nature. The chemistry of honey endowed with useful cosmetical properties. The chemical components of honey⁶⁶ are:

- Sugars:fructose (laevulose), glucose, sucrose

- Water
- Minerals: K,Ca,Mg,Fe,Cu,Mn,P,Cl,Ag,Au
- Proteins and amino acids: proline, phenylalanine, aspartic acid, glutamic acid, leucine etc
- Enzymes: invertase, amylase,catalase, phosphatases etc
- Vitamins: B₁, B₂, B₆, riboflavin, niacin, vitamin-C, Vitamin-A
- Acids: acetic acid, malic acid, succinic acid, lactic acid, citric acid, tartaric acid, butyric acid

Honey cucumber lotions and masks have anti-wrinkle and anti-pimple properties. Honey is wonderful beauty aid because of antioxidant vitamins and moisture retaining power of laevulose.

Laevulose is the most hygroscopic among all the sugars. Iron, B₆ and Cu are essential for erythrocytes production which maintains healing blood supply to facial skin cells.

2.4. Animal Milk

Milk is an emulsion of butterfat globules with a water-based fluid. The milk of cow, goat, she-ass and camel has become the innovative ingredients of the facial formulations. The presence of precious nutraceuticals and minerals valued their therapeutical functions in facial disorders and the beautification of looks. The proteins (casein, albumin) carbohydrates (lactose) and lipids (saturated, momosaturated, polysaturated) are their common chemical constituents. The nutraceutical relevance of cow, goat, she-ass and camel milk are briefed below:

- Cow' milk⁶ 60 Kcal energy
Vitamins: A,D,B₁,B₁₂
Minerals: K, Ca, Mg
- Goats milk⁷⁻¹¹ – 69 Kcal energy
Vitamins: A,C,D,E,B₁, B₂, B₆, B₁₂, niacin, pantothenic acid, folacin citrates.
Minerals- Na, K, Ca, Mg, Zn, phosphorous, chlorine
Goat's milk prevents cow's milk allergies
- She-ass milk¹²⁻¹⁵ - it is closest to breast milk.
Vitamins: A,C,D,E,B₁,B₂, B₆
Minerals: Na, Ca, Mg, Zn, Phosphorus
Special contents: High content of linoleic acid, lactoferrin, Lysozyme, Biostimilines (Immunoglobins) and alkylglycerols
- Camel's milk¹⁶⁻²¹ – Low in lactose, potassium and phosphorous.
Vitamins: A,B,C,E
Vitamin-C is 3 times higher and E, A are lesser than cow' milk.
Minerls: Na, Cu, Mg, Zn, fe, Mn are higher than cow's milk
- Special contents:
 - Lactoferrin 10 times higher than cow's milk
 - Immunity components such as IGG molecules which are effective in microbial, viral and bacterial infections.
 - High level of peptidoglycan
 - Camel milk whey proteins (they remain suspended in whey, left behind when caseins coagulate into curds) are water soluble. They are:
 - Lactoglobulin
 - a-lactalbumin (related to C-type Lysozymes)
 - whey acid protein (cysteine rich protein)

B-casein (proline rich peptide related to opioid like peptide)

3. Discussion And Result

The innovative ingredients of facial cosmetics appeared in recent formulations to make up the deficiencies of conventional or non-botanical cosmetics. An ideal facial cosmetic should be promoter of healthy skin growth, restorer of moisture, smoother of dry skin, skin lightener and skin cleaner.

IIFCs have almost all such qualities for healthy facial skin. Herbal oils have versatile bioactions which are well-suited for the facial cosmetics. They include regenerative, acne-regulation, complexion promoter, moisturizing, wrinkle reducer, toning and healing effects, supporting collagen formation and anti-dermatitis.

Honey and cucumber lotion have anti-wrinkle and anti-pimple actions. The hygroscopic laevulose sugar has excellent moisture retaining power. Iron, B₆ and copper are essential for the erythrocytes production which maintain healing blood supply to the facial skin cells. Natural scrubs are rich in anti-oxidants (Vitamin-C, jojoba oil) promote healthy and young appearance of the facial skin. The animal milks have nutraceuticals which help in sustaining anti-ageing status of facial look. They have antioxidative vitamins A,C,E. They have anti-ageing, anti-wrinkle and anti-oxidative stress actions. Their proteins have anti-microbial, anti-viral anti-allergic properties (lactoferrin). They have high percentage of the fatty acid esters which may be pharmaceutically acceptable carriers. The Oligosaccharide richness of them have immunomodulator action by binding to bacteria and viruses, thus preventing the degeneration

of facial skin. Their calcium and magnesium give healthy look to skin and microelements have anti-wrinkle and skin softening actions. The peptidoglycans like structures reduce fine lines, wrinkles and age spots.

4. Conclusion

The facial skin is the most exposed part of the human body. The ageing debilitates facial skin and visible parameter of growing old, therefore, facial pharmaceuticals are one of the most widely used for personal gratification. IIFCs have enhanced the popularity of facial botanicals. Their utility has phenomenally progressed because of psychosocial attitudes and appeals of the contemporary global society. IIFCs have boosted the facial charm at the psychological level of an individual. The most efficacious cosmological bioactions of them are:

- Anti-wrinkle
 - Anti-acne
 - Regeneration power by replacing dead skin cells through new skin cells which impart younger look.
 - Preventing sagging of facial muscles by improving the structures strength of facial skin proteins
 - Excellent moisturizing property
 - Preventing radiation and pathological damages of facial skin
- IIFCs have superb cosmological potential. They endow facial beauty and handsomeness by enriching facial skin with special ingredients.

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