

Formulation and Evaluation of Natural Clay Scrub Cubes

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Abstract: Consumers and producers are getting more hospitable the usage of natural cosmetics. This will be seen in them employing a sort of natural cosmetic resources and materials. Approaching towards modern life style, everyone is conscious about his/her look and number of cosmetics which are made from chemicals and freely available in market to form their skin looks beautiful without knowing the results produced by chemicals on skin. To stop such complications and to extend the sweetness of one's look, we selected one among ancient techniques of daily routine Udvartana (Scrub) as a topic research to understand effect of Udvartana (Scrub) on skin health. The results were assted on manifestation of improvement in skin health, like symptomatic changes after application. Samples were assted and evaluated on basis of subjective parameters at interval of 15 days for two months. Selection of ingredients was done on basis of classical references. We got significant end in symptoms of facial skin in experimental group after two months. The finding suggests that Udvartana (Scrub) is an efficient, safe and straightforward way for healthy skin.

Keywords: Udvartana (Scrub), skin, cosmetics

1. Introduction

From the traditional times, different herbs are used for cleansing, beautifying, nourishing and lots of more. Face skin is that the major a part of body, which dictates the health of a private [1]. The main purpose of scrub is exfoliation. Exfoliation is defines as "to remove unwanted dead skin cells from the skin". Scrub is gentle exfoliation treatment suitable for all skin types leaving the skin soft, smooth and free from all impurities. It gives revitalizing and glowing effect to the skin. There are mainly two sorts of exfoliation methods;

- Physical exfoliation
- Chemical exfoliation

Skin care is at the interface of cosmetics and dermatology but skin care differ from dermatology, it doesn't required any medical professional's whenever. The skin supports its own ecosystem of microorganism, including yeast and bacteria, which can't be removes by any amount of cleaning. Skin is additionally a sensory organ, which indicates the health of individual. It's consists of material like aminoalkanoic acid, lipid and carbohydrate etc. In order that a balanced nutrition is required for skin to stay it glossy, clean and clear and healthy [2].

Mechanism

Human skin is comprised of three layers, the epidermis, the dermis, and therefore the subcutaneous layer. Skin varies in com-position and thickness throughout the body. The method of exfoliation and somatic cell renewal takes place within the epidermis, the outer layer, which is 0.5-1.0 mm thick. Skin contains about 70% water, 25% protein and a couple of lipids, with the remaining 3% consisting of trace minerals, nucleic acids, glycosoaminoglycans, proteoglycans and various other chemicals. The cells of the uppermost layer of the epidermis, the corneum or 'horny layer' comprise a protective layer of continually shedding dead cells referred to as keratinocytes, (the

primary sort of epidermal cells), hardened proteins referred to as keratins (protect against harmful substances), and lipids. Fibroblasts are animal tissue cells found within the dermis layer of the skin. These cells synthesize collagen, elastin and other structural molecules, and their pro-per functioning is crucial to overall skin health. After about fifty divisions, fibroblasts undergo cellular senescence during which they lose the power to divide and their metabolic activity decreases. they have a tendency to enlarge and accumulate lipofuscin, the pigment liable for age spot.

The middle layer of the epidermis contains vital living keratinocytes, or squamous cells, which do the most work of protecting the body. The inner layer of the epidermis, the basal layer, consists of basal cells, which continually divide to make new keratinocytes. As they differentiate, they migrate into the center layer to perform their protective functions. As they mature, keratinocytes lose water, flatten and move upward, eventually reaching the corneum where they're then shed, to get replaced by new cells moving upward from the center layer. Epidermal cells adhere to every other on the tops, sides and bases of the cells via calcium-dependent desmosomes. Because the cells move upward from the deeper layers of the epidermis to the outermost layers of the corneum, the desmosome attachments become weaker. This weakening is accelerated by enzymes, found only in skin and hairfollicles that break the bonds of the desmosomes and free the cells to slough off.

While the precise Chemical exfoliation mechanism is unknown, it's believed that cells are programmed once they are young and residing within the lower layers of the epidermis. Each cell has an indoor clock that ensures that it's linked to other cells for a particular period of your time. When the clock runs down, cell consistency decreases and therefore the cells slough off. Although the mechanism controlling the activation process isn't well understood, the enzyme liable for weakening the bonds

between cells is inactive within the skin until activated by another enzyme. The complex process referred to as keratinization commences with the birth of a replacement cell within the basal cell layer (stratum germinativum) and its progression upward until its shed as a corneum corneocyte. This normally takes about four weeks; however, it can take the maximum amount as seventy-five days counting on age and therefore the condition of the skin. Needless to say, younger skin is more efficient than aged skin at this process of desquamation, which stimulates the expansion of latest cells at a deeper level [3], [4].

Benefits of Scrubbing Your Skin:

- 1) For A Squeaky Clean Skin.
- 2) Frees Your Skin From Flakes.
- 3) Helps in Removing Dead Cells.
- 4) Adds Glow To Skin.
- 5) Removes Dark Patches.
- 6) Removes Acne Scars
- 7) Prevents hair.
- 8) For Smooth Skin.
- 9) Improves the feel Of Your Skin.
- 10) Promotes Clear Complexion [5]

2. Materials and Methods

Step 1: The ingredients (Fuller’s earth, bentonite, oatmeal powder, turmeric powder, brahmi powder, citric acid) were powdered and sieved through sieve no.44. Then they were

packed in moisture resistant, well closed containers. The different ingredients with their key uses are enlisted in table 1. This was dried and kept in desiccator for further process.

Step 2: All apparatus was cleaned and washed. Fuller’s earth, bentonite, oatmeal powder, turmeric powder, brahmi powder was mix homogenously in mortar pestle. Then coarse rice bran powder was added, mix it with mixture. In beaker gum tragacanth solution was prepared; it was kept for few minutes. In mixture citric acid, glycerin, menthol powder and perfume were added with continuous stirring. At the end binder were added that was kept aside for few minutes and mixed whole mixture homogenously. Prepared mixture was poured into moulds for final product.

Step 3: After that moulds were dried under the tray dryer. After drying clay scrub cubes was prepared and collected.

Table 1: Formulation of Clay Scrub Cube

Sr. no.	Ingredients	Quantity	Uses
1	Fuller’s Earth	35%	Absorbent
2	Rice bran	15%	Scrubbing agent
3	Oatmeal Powder	25%	Gentle cleansing agent
4	Bentonite	10%	Absorbent & Binder
5	Citric acid	0.5%	Preservative
6	Turmeric	0.5%	Antibacterial agent
7	Brahmi	2%	Rejunavator
8	Menthol	0.5%	Cooling agent
9	Tragacanth	1.5%	Binding agent
10	Glycerin	8%	Humectant
11	Perfume(Citrus Brust)	qs	Perfuming agent

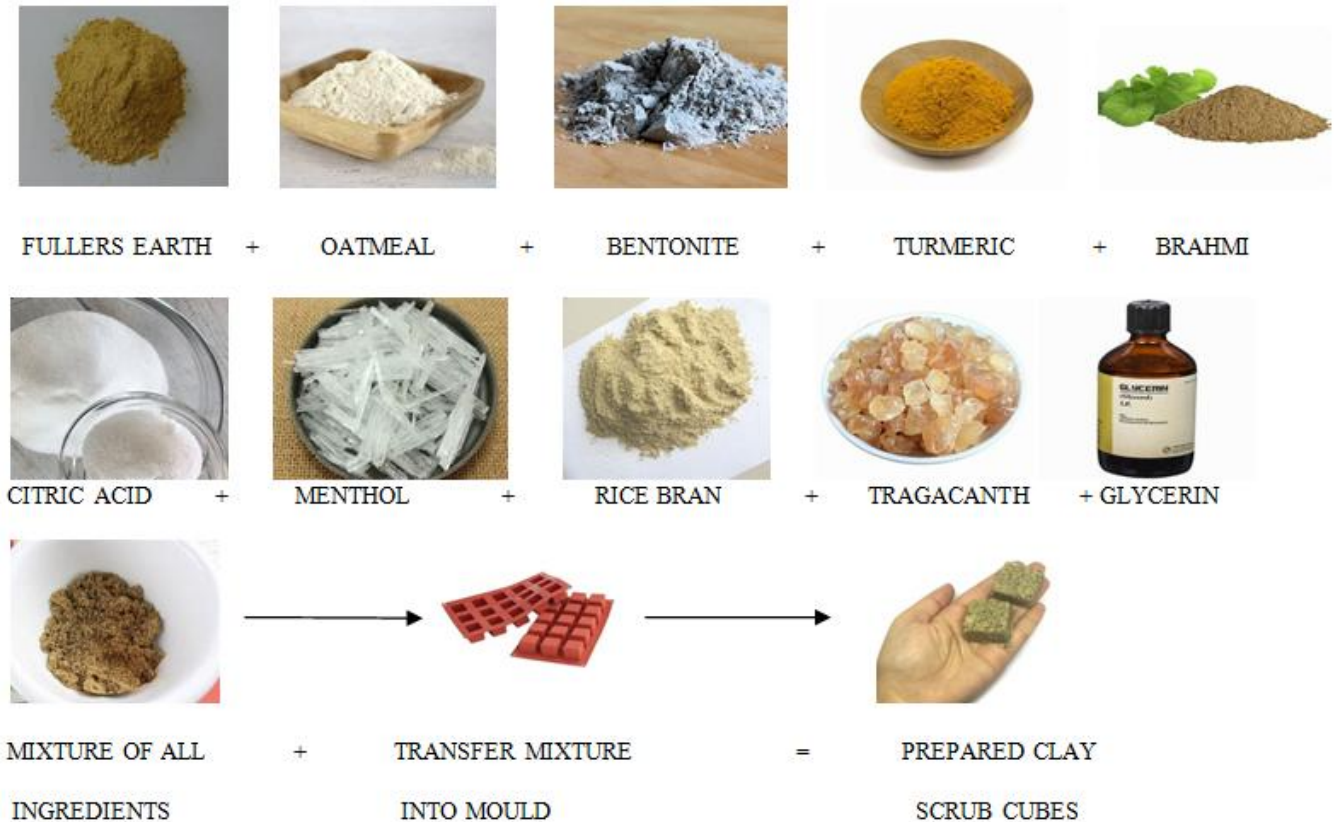


Figure 1: Process of formulation of scrub

3. Evaluation Parameters

Formulation was tested for physical appearance, color, texture, odor, pH, irritability, washability, homogeneity and grittiness.(Table 2)

Sr no	Parameters	Observations
1	Color	Brownish
2	Odour	Characteristic
3	pH	5.5
4	Spreadability	Easily spreadable
5	Consistency	Solid
6	Grittiness	Complies
7	Foamability	Complies
8	Washability	Complies
9	Scrubbing action	Complies
10	Irritability	Non irritant

Social impact

- Natural origin ingredients
- Cost effective product
- Save water

4. Results

The clay scrub cubes was prepared and evaluated. The clay scrub cubes formulated in the laboratory was found to be compared with various parameters such as appearance, pH, and wash ability, irritability and found to be satisfied with all required characterization. Thus, the developed formulation is often used as an efficient scrub for using it in touch a healthy and glowing skin. After using the scrub, skin was sure to feel softer, cleaner and refreshed. It made skin beautiful, youthful and soft and glowing. Herbal cosmetics showed lesser or no side effects, hence use of herbal cosmetics get increased.

5. Conclusion

The present work was attempted to make a natural exfoliating clay scrub in cube form. Various parameters have been evaluated providing satisfactory result and improved the appearance of the skin without any side effects.

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