



Preparation Of Poly Herbal Body Scrub

Name- Punam S. Kadam,* Dr. Rajendra M. Kawade

College name- Nandkumar shinde college of pharmacy, vajapur 423701

Dist.-chh. Sambhajinagar

Abstract:-

The earth is enriched with a rich wealth of medicinal plants. Many weeds of our surroundings are often very powerful medicinal plant to address many of our today's major health problems.[1] Natural beauty is blessing and cosmetics help in presenting and increasing the beauty and personality aspects of human being. Cosmetic means any article intended to be rubbed, poured, sprinkled on or introduced into or otherwise applied to the human body or any part for cleansing, beautifying, promoting attractiveness or altering the appearance and includes any article intended for use as a component of cosmetic.[2] Herbal cosmetics are growing rapidly as most women prefer natural products rather than chemical products for their personal care.

The research aimed to produce an herbal body scrub. The majority of times, the skin is in regular contact with dirt, pollution, and other contaminants. The scrub comprises various natural components that are safe to use, have fewer adverse effects and have antibacterial, anti-infective, antioxidant, anti-aging, anti tanning, anti inflammatory and moisturizing characteristics. To remain healthy and to appear good skin surface requires periodic cleansing to remove dirt, sebum, other secretions and dead cells. The scrub was prepared by using simple mixing method using various ingredients such as rice flour, turmeric, chickpea flour, orange peel, multani mitti, cynodon dactylon, rose petals green gram powder etc. The pH, physical appearance, color, odor, texture, irritability, Spreadability and Washability, were evaluated as Evaluation parameters for Facial Scrub- Formulation.[3]

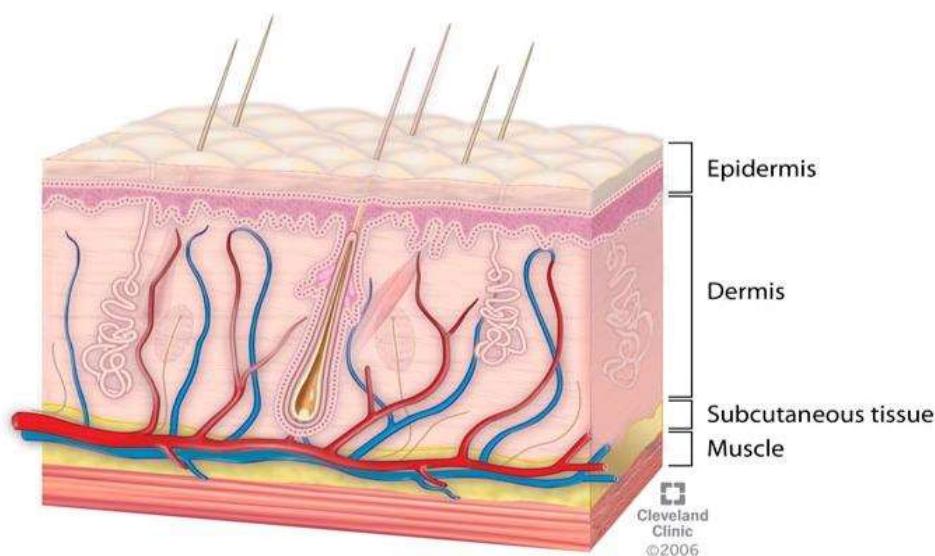
Keywords:- rice flour , antiacne, exfoliant, face scrub, green gram powder, cynodon dactylon, rice flour, anti tanning etc.

Introduction:-

word cosmetics is derived from the Greek word "kosmos". It describes as objects intended for rubbing, pouring, sprinkling or spraying or presenting on the human body or otherwise any part of the cleansing, glittering, which promotes attractiveness or a cautious appearance.[2] From ancient times the various herbs used to cleanse and purify beauty. Traditional Knowledge Systems that use herbs or plant products for therapeutics on large scales. Several phytochemical constituents are obtained

from various parts such as root, stem, leaf, fruit, seed, bark etc.[4] In addition, extracts of medicinal plants are useful in the treatment of several health problems. The health of an individual is mainly represented by the skin which is the major part of the body. Lipids, amino acids, carbohydrates are the composition of skin. Skin can be affected by biological, hormonal, environmental factors.[5] Cosmetics are available in different forms and each has its own role to play in the skin. The skin is the largest organ in the body. Provides protection, water conservation, lubricate and regulates temperature. The skin becomes dull, not hot for a variety of reasons and this can be successfully overcome by applying a scrub. Generally, skins are of three types; dry skin, oily skin, and sensitive skin. The people with dry skin must use facial scrub which contain hydrating ingredients and moisturizer is must for them after using scrub. Gentle scrubs should be used for sensitive skin. For those who are having oily skin, it is essential to get a scrub that exfoliates deeply to prevent the pores from clogging and also to balance the skin's oil production.[6] There are two types of scrubs that are applied to the skin such as facial scrubs and body scrubs. Body scrubs contain coarse particles which help to exfoliate the skin. Scrubbing not only helps many skin problems, it also increases blood circulation, which in turn helps you to achieve healthy and glowing skin. Body scrub was simple to use: choose one regular scrub suitable for skin, rub it in for one minute on moisturized skin, and then wash it.[7] We can use a face scrub twice or thrice a week followed by lightweight face oil. Cleaning the surface technically with a scrub or utilize in herbal products containing anti-aging, vitamins, antioxidants and antiseptics characteristics that assist help depth to cleanse the skin and make it shine and appealing remove these dead skin cells. The herbal drug industry in India is probably the oldest medical care system in the world. Herbal remedies has even been mentioned in vedas, an ancient religious textbook. In ancient times when scrub were not manufactured people used to use Panchamrit. In these curd, milk, honey, ghee, sugar it is moisturized skin, shows bleaching effect, soothening the skin, face glowing.[1] Our present work aimed at formulating the scrub containing herbal amla powder, turmeric, multani mitti, Green gram flour, rice flour, orange peel, cynodon dactylon, chickpea flour, rose petals. so that it has no side effects and contains herbal products also as excipients. When you apply a body scrub, the particles rub against your skin and remove all the dirt from your skin pores. It also removes dead skin cells, making your skin smoother and softer.

Structure of skin:-[8]



The skin is the body's largest organ, made of water, protein, fats and minerals. It covers the body's entire external surface. Your skin protects your body from germs, regulates body temperature and enables touch (tactile) sensations. The skin's main layers include the epidermis, dermis and hypodermis and is prone to many problems, including skin cancer, acne, wrinkles and rashes. Skin serves as a body's initial barrier against pathogens, UV light, chemicals and mechanical injury. It also regulates temperature and the amount of water released in the environment. Acne, also commonly known as acne vulgaris, pimple, etc. It is one of the most common chronic inflammatory diseases of the pilosebaceous unit—hair follicles in the skin that are associated with an oil gland. Acne includes seborrhoea (excess grease), non-inflammatory lesions (open and closed comedones), inflammatory lesions (papules and pustules), and various degrees of scarring. The distribution of acne is on the face, neck, upper chest, shoulders and back. During puberty, in both sexes, acnes often brought on by an increase in hormones such as testosterone. A frequent factor is the excessive growth of the bacterium. Propioni bacterium acne, which is normally present on the skin. Acne vulgaris tends to be more severe in males while its frequency increases in females in the age of puberty. Acne is more common in females than males. Sebaceous glands are tiny glands found near the surface of your skin. The glands are attached to hair follicles, which are small holes in your skin that an individual hair grows out of. In acne, the glands begin to produce too much sebum. The excess sebum mixes with dead skin cells and both substances form a plug in the follicle. Sebaceous glands are tiny glands found near the surface of your skin. The glands are attached to hair follicles, which are small holes in your skin that an individual hair grows out of. In acne, the glands begin to produce too much sebum. The excess sebum mixes with dead skin cells and both substances form a plug in the follicle. Sebaceous glands are tiny glands found near the surface of your skin. The glands are attached to hair follicles, which are small holes in your skin that an individual hair grows out of. In acne, the glands begin to produce too much sebum. The excess sebum mixes with dead skin cells and both substances form a plug in the follicle. [9,10]



Some things that may trigger acne include:[11]

1. Hormonal changes that make the skin oilier. These may be related to puberty, menstrual periods, pregnancy, birth control pills, or stress.
2. Greasy or oily cosmetic and hair products.
3. Certain drugs (such as steroids, testosterone, estrogen, and phenytoin). Birth control devices, such as some drug-containing IUDs, can make acne worse.
4. Heavy sweating and humidity.
5. Excessively touching, resting on, or rubbing the skin

- ❖ **Body scrub** – A body scrub is a physical exfoliate that is usually either salt or sugar-, used to remove dead skin cells from your skin based.
- ❖ **Exfoliation**- Exfoliation is the process of removing dead skin cells from the outermost layer of our skin, and exfoliate aid in removing these stubborn dead cells.[12]

Benefits of scrub=

1. Prevent ingrown hairs
2. Help fade acne scars
3. Absorb other skincare products and hydrate your skin
4. Reduce the appearance of cellulite
5. Improve overall skin texture
6. Unclog pores and clear blemishes
7. Remove dead skin cells
8. Relax and de-stress
9. Evens out tan lines
10. Reduce body odour
11. Promoting efficient circulation and skin cell turnover
12. Drawing out impurities and clearing congestion
13. It gives better absorption
14. It helps to prevent hyperpigmentation
15. It treat acne
16. Gives healthy glow
17. Brightens the skin

Materials and methods –

All ingredients were obtained in their crude form from local distributor (dronagiri lasalgaon, Nashik) , and fruits orange peels, multani mitti, turmeric, amla powder were collected from the local market lasalgaon. The green gram flour, rice flour, chickpea flour are home remedies and cynadon dactylon, rose petals are collected from garden.

Herbal contents in scrub:

1.Green gram flour –[13]



Synonyms: vigna radiata, moong bean.

Biological source: vigna radiata(L.)

Family: fabaceae

Introduction: It has been known to be an excellent source of protein, dietary fiber, minerals, vitamins, and significant amounts of bioactive compounds, including polyphenols, polysaccharides, and peptides therefore, becoming a popular functional food in promoting good health.[14,15]

Uses/ benefits for skin: naturally exfoliate the skin and clear of dead cells making the skin look brighter and supple. While the richness of vitamins A and C in green gram powder helps to enhance the skin texture and glow.

2.rice flour-[16]



Botanical name : oryza sativa

Family: gramineae

Chemical constituents : rice is composed of amylose and amylopectin.

Uses: Oil- retaining properties, potent skin clearing agent, Reduce UV damage, prevent skin aging, Anti-Inflammatory agent.[17]

3. Chickpea flour-[18]



Synonyms: chana dal, besan, chickpea flour.

Biological name: *Cicer arietinum*

Family: fabaceae

Uses: Chickpeas are rich in magnesium which helps reduce the fine lines and wrinkles on the skin.[19]

4. Turmeric-[20]



Synonyms: Haldi, turmeric.

Biological source: Turmeric is a dried rhizome of *Curcuma longa linn.*

Family: Zingiberaceae

Chemical constituents: curcumin, essential oil,etc

Uses: antiseptic, traditionally used for disorders of skin; Anti-inflammatory; fights free radical damages.[21]

5.rose petals:[21]



Synonyms- rose petals, damask rose

Biological name: *Rosa damascena*

Family: Rosaceae

Chemical constituents: The volatiles mainly consist of 2- phenylehanol, linalool, citronellol, nerol, geraniol, etc.

Uses: Soothens skin irritation, reduce skin redness, heals cuts and scars, treat burns.

7. Cynodon dactylon- [22]



Synonyms: argampul, durva grass, Bermuda grass.

Biological source: it consist of dried whole plant of *Cynodon dactylon* Linn.

Family: Poaceae

Introduction- It is a highly prized ayurvedic plant for its impressive medicinal properties. In India, durva grass is considered very sacred and most favourite to Lord Ganesha and offered to Him during auspicious days. It has vast medicinal value and it is used in the treatment of various diseases in the form of its powder, paste or juice. The plant possesses antiviral and antimicrobial activity.

Chemical constituents: It contains phenolic phytotoxins viz. Ferulic, syringic, paracoumaric, vanillic, para hydroxyl benzoic and orthohydroxy phenyl acetic acid [1,23,24] Flavonoids and glycosides were found to be present in the aqueous extract of *C. Dactylon*

Uses: It has antimicrobial and antiviral activity, anti inflammatory, Use of Durva grass is recommended in Psoriasis.

8. Orange peel-[25]



Synonyms:

Biological source: Orange peel is dried fresh outer part of the pericarp of the ripe or nearly ripe fruit of *Citrus aurantium linn.*

Family: rutaceae

Chemical constituents: it contain not less than 2.5% of volatile oil, vitamin C, citric acid, limonene etc. It also contain calcium, potassium and magnesium.[26]

Uses: The antioxidants in orange peels help combat toxic free radicals. Also, these vital nutrients help fight early signs of ageing like wrinkles, fine lines, dark spots, sagging skin.

9. Multani mitti-[27]



Synonyms: multani mitti

Biological name: Fuller's earth

Introduction: It's high in minerals and water, It's high in minerals and water, Multani mitti may often be used to improve the complexion. It may also have some effect on scars. It may help with suntan and pigmentation. Multani mitti may be an effective home remedy for pimples or acne.

Uses: treat acne or pimples, antimicrobial, anti-inflammatory, it has brightening property.[28]

Different formulation of herbal scrub-

Table 1: Formulation of polyherbal scrub:-

Sr. No.	Ingredients name	Quantity	Category
1.	Green gram flour	2	Exfoliating
2.	Chickpea flour	1.15	Anti toning agent.
3.	Rice flour	1.25	Skin whitening
4.	Turmeric	0.5	Glowing skin, antibacterial .
5.	Rose petals	0.5	Cooling agent, emollient.
6.	Cynodon dactylon	3	Antibacterial, antiviral.
7.	Orange peels	0.5	Rich in vitamin C
8.	Multani mitti	1.15	Cleaning of oil and dust particles
9.	Honey	qs.	-
10	Milk	qs.	-
11.	Rose water	qs.	-
12.	Butter milk	qs.	-

Preparation of body scrub-

Weighed carefully all the herbal powder such as green gram flour, rice flour, chickpea flour, turmeric, orange peel, multani mitti, cynodon dactylon, rose petals etc. through sieved no.120

Mixed them together with mortar and pestle to produce homogeneous mixture.

Storage- the prepared herbal scrub powder stored in air tight container

Ideal characteristics of herbal scrub-[29]

1. It should form smooth paste.
2. It should capable of producing significant cleansing of skin.
3. It should non-toxic to skin.
4. The coating should be removed either by gentle washing.
5. Non irritant to skin

How to apply scrub on skin-

- Take out small amount of herbal scrub powder
- Make paste by using butter milk or rose water keep aside for 2-3min
- Then apply paste locally on body with gentle rubbing on skin in small circular.
- Scrub your skin no longer for 30 seconds. Rinse your skin with lukewarm water.

Evaluation of scrub with different solvents-

Table 2 : evaluation of scrub with different solvents

Honey	Poor effect
Butter milk	Excellent effect
Milk	Better effect
Rose water	Good effect

Butter milk is rich in lactic acid. Due to astringent property of lactic acid it helps in preventing premature aging and tightens the skin and keeps it wrinkle free and youthful.

Rose water has its own fragrance.

Evaluation parameters of body scrub- The prepared Scrub was evaluated for appearance, pH, consistency, Spread ability,, irritability, Wash ability, grittiness.

- **Appearance-** The prepared scrub was evaluated for its odour and colour. The colour was found to be brown in colour and odour was found to be characteristic.
- **pH-** pH of the prepared scrub was evaluated. Small amount of the scrub was applied on the pH paper and found to be 7.3
- **Irritability-** Small amount of the scrub was applied on the skin and kept for few minutes and found to be Non-irritant
- **Washability-** Little quantity of scrub was applied over the skin and was washed with water. It was easily Washable.
- **Grittiness-** Scrub was found to have a few gritty particles.
- **Spreadability-** The Spreadability is very much Important as shows the behaviour of scrub that Comes out from the tube. It is used to identify the extent of spreadability by the Scrub on skin.

Result :-

Sr. No.	Parameters	Result
1.	Colour	Yellowish brown
2.	Odour	Characteristic
3.	pH	7.3
4.	Washability	Easy washable
5.	Stability	Stable
6.	Grittiness	Small gritty
7.	Irritability	No irritation
8.	Feel on application	Greasy



Conclusion:-

All of the substances used in our herbal scrub are dietary ingredients with medicinal properties that we can use to cleanse or promote attractiveness. As they are food items, they have fewer side effects than chemical products. These scrub is used for all skin types such as oily skin, dry skin or combined skin type. These scrub apply with different solvents. Scrub with butter milk gives an excellent effect because of in butter milk due to astringent property of lactic acid it loosen the impurities and dead skin cells from the body.

It has no adverse effects. In the current investigation, we found that numerous plants are utilised by people to treat dermatological problems and as cosmetics. Antioxidant, antiseptic, antiaging Anti-inflammatory, Anti tanning Effect of rice flour, green gram flour, chickpea flour, amla powder, turmeric, orange peel, rose petals, multani mitti etc. The herbal scrub formulation was successful in achieving good spreadability on the skin. The prepared scrub was evaluated using a variety of parameters and determined to be suitable for application to the skin to make it healthy and glowing without any adverse effects. As a result, the demand for herbal formulations is expanding on a daily basis, both in our country and globally. Most people employ herbal formulations in their daily lives.

Reference-

1. Paul R., Mandal A., Datta KA., An Updated Overview on Cynodon dactylon (L.) Pers. International journal of research in ayurveda and pharmacy 2012; 3 (1): 11-14
2. Shoba Rani R; Hiremanth. Text book of Industrial pharmacy, Drug delivery systems & Cosmetics & Herbal drug technology: Universities press (India) Ltd; 2nd Edition
3. Guy RH: Current status and future prospects of transdermal drug delivery. Pharmaceutical research. 1996 Dec;13(12):1765-1769.
4. Rohit kumar bijuliya, Shashi alok, Mayank kumar, Dilip kumar chanchal and Shrishti yadav. A comprehensive review on Herbal Cosmetics, 2017
5. Kumar L and Verma R, In-vitro evaluation of topical gel prepared using natural Polymer. Int J Drug delivery, 2010; 2: 58-63.
6. Prathyusha, J., et al. "Formulation and Evaluation of Polyherbal Face Scrubber for Oily Skin in Gel Form." International Journal of Pharmaceutical Sciences and Drug Research, vol.11,no.04,2019 Doi:10.25004/ijpsdr. 2019 110404.
7. Shivanand P, Nilam M, Viral D: Herbs play an important role In the field of cosmetics. International Journal of PharmTech Research 2010;2(1):632-9.
8. <https://my.clevelandclinic.org/-/scassets/images/org/health/articles/10978-skin>
9. Pawar DN, Pawar AP, Dalvi YV. Formulation and Evaluation of Herbal Scrub Gel. Research Journal of Topical and Cosmetic Sciences. 2019;10(1):13-8.
10. Silva F, Domingues FC. Antimicrobial activity of coriander oil And its effectiveness as food preservative. Critical Reviews in Food Science and Nutrition. 2017 Jan 2;57(1):35-47
11. <https://skinive.com/wp-content/uploads/2018/12/akne-1.jpg>
12. Shahinoor Rahman Dulal. "Mohammad Abu Taher2 and Hasib Sheikh Sandalwood Oil Can Be a Miraculous Tackle on Skin Aging." Skin Appearance and Wrinkle Skin -a Review, vol. 19, 2018
13. <https://theearthlylife.com/cdn/shop/products/green-moong-dal-powder@2x.jpg?v=1680247892>
14. Dahiya P.K., Linnemann A.R., Van Boekel M.A.J.S., Khetarpaul N., Grewal R.B., Nout M.J.R. Mung bean: Technological and nutritional potential. Crit. Rev. Food Sci. Nutr. 2015;55:670–688. Doi: 10.1080/10408398.2012.671202. [PubMed] [CrossRef] [Scholar]
15. Gan R.-Y., Lui W.-Y., Wu K., Chan C.-L., Dai S.-H., Sui Z.-Q., Corke H. Bioactive compounds and bioactivities of germinated edible seeds and sprouts: An updated review. Trends Food Sci. Technol. 2017;59
16. <https://naturebiofoods.organic/wp-content/uploads/2021/01/Organic-Sticky-Rice-Flour-2.jpg>
17. Dr. Md. Shahinoor Rahman Dulal1*, MohammadAbu Taher2and Hasib Sheikh sandalwood oil can be a miraculous tackle on skin aging, skin appearance and wrinkle skin –a review, 2018;