



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

FORMULATION AND EVALUATION OF HERBAL FACE CREAM

Aniket Dilip surya , Ghule.H.N., and Dr.Prachi Udupurkar .Kishori College of Pharmcy, Beed Dr.Babasaheb Ambedkar Technological University,Lonere

Abstract— Aloe vera, amla and cucumber peel are medicinal plant they are used as traditionally from ancient year in various herbal medicines such Ayurveda, siddha, and Homeopathic. Cosmetics and some medicinal products are made up from the mucilaginous tissue in the centre of aloe vera leaf and called Aloe vera gel. Aloe vera gel contains no Antraquinone. Which are Responsible for the strong laxative affects of aloes. However, total leaf extract may contain Antraquinone. Aloe vera contains 75 potentially active constituents like Vitamines, Enzymes, Minerals, Sugars, Saponis, Amino acids. Amla contain Amino acid like glutamic acid, proline, And Aspartic acids etc. Protein, Minerals. Cucumber peels are rich in fiber and contain minerals like magnesium, potassium, and silica. The silica is an essential component to keep your muscles, bones, and tendons healthy. It also hydrates our skin, improves complexion and vision.

KEYWORDS: Aloe vera, Amla, Cucumber peels, face cream, Evaluation.

➤ INTRODUCTION:

The Demand of herbal cosmetics due to the availability of new ingredients the financial rewards for developing successful products and maintained of quality standard. Cosmetics are the products applying on the body. Face cream are used as cosmetic for softening and cleansing action. The Ayurvedic system of medicine was one of the most important systems that uses herbal plant and extract of the treatment of management of various Diseases state [1] Aloe vera Synonyms-Aloe Barbadosis Belong To Family- Liliaceae, which having 300 specie, Aloe vera is cactus like plant that grow readily in hot, dry climates, and Aloe vera cultivated in very large Quantities. Cosmetics and some medicinal products are made up from the mucilaginous tissue in the centre of aloe vera leaf and called Aloe vera gel. Aloe vera gel contains no Antraquinone. Which are Responsible for the strong laxative affects of aloes. However, total leaf extract may

contain Antraquinone. Aloe vera contains 75 potentially active constituents like Vitamines, Enzymes, Minerals, Sugars, Saponis, Amino acids Amla, Synonyms-Emblica Officinalis.

Family-

Euphorbiaceae. Which also known as Indian gooseberry. It contains Vitamin C considered important to slow the ageing radicals. Vitamins C is a Scavenger of free radicals which break them down. And also contain Amino acid like glutamic acid, proline, And Aspartic acids etc. Protein, Minerals.[4,5] Amla having show Antioxidant, Anti-cancer, Antibacterial Activity.[6.7.8.9] Cucumber (Cucumis sativus L.) belongs to Cucurbitaceae family such as melon, watermelon, pumpkin and zucchini. It is widely consumed fresh in salads or fermented (pickles) or as a cooked vegetable. They are widely used for various skin problems including swelling under the eyes and sunburn. It is believed that they promote refreshing, cooling, healing, soothing, emollient and anti-itching effect to irritated skin. The nutrient profile of Cucumis sativus L. includes water(96.4%),protein(0.4%),fat(0.1%), carbohydrate (2.8%), mineral (0.3%), calcium (0.01%), phosphorus (0.03%), iron (1.5 mg/100 g) and vitamin B (30 IU/100 g). Ascorbic acid and Enzyme such as crepsin, proteolytic enzyme, oxidase, succinic, malic dehydrogenase have also been reported in the fruits. The bioactive compounds isolated from cucumber includes cucurbitacins, cucumegastigmanes I and II, cucumerin A and B, vitexin, orientin, isoscoparin 2''- O-(6'''-(E)- p-coumaroyl) glucoside, apigenin 7- O-(6''-O-pcoumaroyl)gl

Cosmetological Importance Of Aloe

Aloe vera has been used since ancient times for healing infection and burns. However with the improvement in cosmetology, it has been proved that Aloe vera is a very



important component of cosmetics. It contains almost 20 amino acids, minerals like calcium, magnesium and sodium in sufficient quantities, enzymes, vitamins, polysaccharides, nitrogen and other components that make it a miracle beauty herb. Some of the most important applications of Aloe vera for purpose of Cosmetology are being explained here briefly.

Physical description**Itching and Blisters**

Aloe vera also provides relief from itching and also helps to treat blisters. Aloe contains vitamin B1, B2, B6, B12 and vitamin C that provide soothing and pleasing sensation to skin

Skin Aging

Aloe vera initiates the synthesis of elastin as well as collagen. These proteins are essential for preventing the aging of the skin [13,14].

Acne

Aloe vera helps to eradicate acne scars by performing as an immune booster and an anti-inflammatory agent. Beauty products composed of Aloe vera may diminish the rigorousness of acne. It is also composed of the chemical ingredients which have the property to save the skin to initiate the acne [15,16]

Freshness

Aloe vera impart the sensation freshness. It helps in increasing distribution of blood therefore providing easier oxygen exchange among the cells, hence giving them nourishment [17]

Sun-burns

Aloe Vera has an outstanding possession in diminishing the hurting of sunburn. For this purpose, it is rubbed directly on skin. The fresh fluid from the plant or Aloe vera containing after-sun creams may be used for sun-burns [18].

Moisturizing Agent

Aloe vera may also be used for softening and moisturizing the skin. There are so many products available in the market containing Aloe vera which may be used post showering to obtain the skin in super soft shape. Aloe vera gel, cream or lotion applied on the face forms a delicious cover that helps to shield the skin from dust and other natural elements which may

Pigmentation

Melanin is a pigment which is responsible for the color of the human skin. Hyper pigmentation is a situation in which large amount of melanin is synthesized. This generally happens due to excess exposure of the skin to the sun. In reaction to UV rays in sunbeams, the skin cells called melanocytes initiate to synthesize melanin. This increased synthesis of melanin is responsible for the emergence of darkened patches on the skin. Aloe vera has the property of diminishing the pigmentation and dark spots on the face

Benefits of aloe-vera for face

- Its anti-inflammatory properties can reduce pain, swelling, and soreness of wounds or injuries
- It has a cooling effect on rashes or sunburns
- It supports the production and release of collagen
- Help in keeping your face health and gives you a natural skin
- Aloe-vera is rich in moisturizing properties it helps in removing dead cell
- Prevent or reduce wrinkles and dark spots of your face

Cosmetological Importance Of Amla [25]

Well, you must be wondering how gooseberry can be used to your skin. You can consume it with honey or you can also apply it on your skin directly and reap its benefits. If you are finding it hard to consume this sour fruit, then try making juice out of it and consume it. This will do good for your skin. Here are some health benefits of gooseberry for your skin

Cosmetological Importance Of Cucumber Peels

Do not discard cucumber peel it has many health benefits. The benefits include its beneficial effects in eye disorders, vitamin A & C deficiency, constipation and bones and muscles disorder. Cucumber peels are rich in fiber and contain minerals like magnesium, potassium, and silica. The silica is an essential component to keep your muscles, bones, and tendons healthy. It also hydrates our skin, improves complexion and vision.



Beneficial for the skin:

Cucumber peels helps in revitalizing the skin from within. Regular application of cucumber- based face packs or grated cucumber appears to be effective in reducing the signs of skin aging. It is also good for your dark circles, open pores, blemishes, etc.

**Reverses Skin Tanning**

Cucumber has a mild bleaching property that can help you get rid of skin tan. Just grate the cucumber and apply the juice on your face and you're all set to face harsh UV rays!

Cools You Off

Due to its cooling qualities, cucumber has a tendency to calm and refresh you in this pricking heat. Just put water and some peels in an infuser and you're all set to beat the heat, the intellectual mechanism of even the most modern robots are still limited to what a designer can program into them in the first place. Now, with the advent of big data, companies are harnessing the power of AI to deliver more focused solutions in a variety of areas; AI helps them understand data in real time. The landmarks were given in table 1

MATERIAL AND METHODS**Plant materials:**

The proposed study of Aloe vera, Amla. Cucumber peel Collected from the local area.

Preparation of Extract:

Air dried and coarsely powdered of Aloe vera, Amla and cucumber peel. Were placed in Soxhlet separately, using petroleum ether and then successively with Ethanol. The extract was then concentrated to dryness under reduced pressure and controlled Temperature, and they were preserved in a Refrigerator

Cream Formulation:

Beeswax, propylene glycol was taken in first beaker. Then heat on a water bath for uniform mixing. After few minutes oil phase was formed. Aloe vera extract and Amla extract, cucumber peel extract, Distilled water, white soft paraffin and glycerine, zinc oxide, Sodium benzoate was taken in second beaker. Mixing all the ingredients by heating on a water bath, the aqueous phase was formed. Oil phase was added into aqueous phase and continuous stirring was done until semisolid mass was formed.

SR NO	INGREDIENTS	QUANTITY
1.	Aloe vera	1,5 gm
2.	Amla	1 gm
3.	cucumber peels	0.8gm
4.	Bees wax	3.2gm
5.	White soft paraffin	9 ml
6.	Methyl paraben	0.3ml
7.	Distilled water	q.s
8.	Menthol	0.2ml
9.	Glycerine	1 ml
10.	Propylene glycol	1 ml
11.	Zinc oxide	0,7gm
12.	Sodium benzoate	0.1 gm

Physical Evaluation

Formulated herbal creams was further Evaluated by using the following physical parameter physical parameter colour, odour, consistency, and state of the formulation.

Colour:

The colour of the cream was observed by visual examination. The result was shown in table 2.

Odour:

The odour of cream was found to be characteristics.

State:

The state of cream was examined visually. The cream was solid in state result was shown in table 2.

Consistency:

The formulation was examined by rubbing cream on hand manually. The cream having smooth consistency.

Ph:

ph of prepared herbal cream was measured by using digital ph meter. The solution of cream was prepared by using 100 ml of Distilled water and set aside 2h. Ph was determined in three times for solution and the average value was calculated. Results were shown in table 2.

Spredability:

spread ability of formulated cream was measured by placing sample in between two slides then compressed to uniform thickness by placing a definite weight for defined time. The specified time required to separate the two slides was measured as Spredability. Lesser the time taken for separation of two slides results showed better Spredability. Spredability was calculated by the following formula healthcare and drug discovery, including a partnership with Pfizer in 2016 to accelerate drug discovery in immuno-oncology. In December 2016 IBM in collaboration with Pfizer introduced IBM Watson, a cloud-based such as medical lab reports and helps researchers with the ability to identify relationships between distinct data sets through dynamic visualizations

IMPORTANCE OF HERBAL FACE CREAM

- This herbal face cream is lightweight and it eliminates pimples, black patches and keep our skin soft.
- This herbal cream is extremely effective to the face skin for keeping dryness away and also makes our face skin wonderful.
- This herbal face Cream fights with puffiness, pigmentation, wrinkles, aging lines and further gives deep moisture to our skin.
- This herbal face cream product not only makes our skin gentle but also shines in additional times.
- This herbal cream reduces pigmentation and also gives glows to our face skin. There are numerous herbal face cream, for example, HERBAL NIGHT CREAM, HERBAL POTATO CREAM, HERBAL HALDI CHANDAN CREAM, HERBAL GOLD CREAM, HERBAL FOOT CARE CREAM, HERBAL D-TAN CREAM, HERBAL VITAMIN-C CREAM, HERBAL DAY CREAM, and HERBAL SAFFRON CREAM and so on.

1974-1980 =During this period interest on AI was dropped, which is called as "First AI Winter".

1986 =Back propagation algorithm design was developed by Georey Hinton which is widely using in deep learning.

1987-1993 =This phase is called as "AI Winter"

1997 =This year IBM Deep blue defeated the Garry Kasparov (Russian grandmaster).

2013 =Google used British Technology to perform efficient research on photos.

2016 =Google DeepMind, software AlphaGo defeated the Go Champion lee Sedo

HERBAL EXTRACTS USED IN COSMETICS

Herbal extracts are primarily added to the cosmetic preparations due to several associated properties such as antioxidant properties. These antioxidant botanicals are generally classified into three categories depending upon the nature of their constituents as Carotenoids, flavonoids and polyphenols. The carotenoids are structurally related to vitamin A and constitute various retinols like retinoic acid. Flavonoids, in addition to the antioxidant action, impart the UV protection and metal chelating properties. The polyphenolics is a large class and contains various molecules like rosemarinic acid, hypericin

Turmeric

Turmeric (*Curcuma longa*, Zingiberaceae) is best known as a spice used primarily in Asian cuisine, particularly curry, and in prepared mustard. It is also used in some traditional Indian communities as a topical burn treatment. Curcumin (Diferuloylmethane), the key biologically active component of turmeric, has shown great potency against acute inflammation, and has been shown to exhibit significant wound healing and antioxidant properties. The paste of turmeric powder has been used as antiseptic and for skin nourishment. Curcumin the active compound of

turmeric, is a polyphenol used in skin care preparations.

Aloe vera

It is also known as Lily of the desert or the Plant of Immortality. It is recommended for sunburn, minor burns, wrinkles, insect bites, skin irritations minor cuts and scratches. Research has shown that the clear gel has a dramatic ability to heal wounds, ulcers and burns by putting a protective coating on the affected areas. It also clears away blemishes protects the skin against infections and reduces wrinkles. It is also cited as being a prophylactic for dry skin, which is prone to inflammation, bacteriostatic.

Caffeine

Caffeine, consumed in popular beverages such as coffee and tea, as well as in certain foods, is thought to have significant anticarcinogenic and antioxidant properties. Specifically, caffeine is believed to confer an anticarcinogenic effect after UVB exposure, chemically inducing apoptosis of UV-damaged cells, suggesting the potential for incorporation of caffeine in topical formulations intended for use.

Ferulic acid

Ferulic acid (4-hydroxy-3-methoxycinnamic acid) is pervasive in the plant world, and considered a potent antioxidant known to provide photoprotection to skin when it is incorporated into cosmetic lotions, sunscreens, and other skin products. Further, it is believed to act synergistically with vitamins C and E and beta-carotene.

Mechanism Action of skin

The skin is the outer covering of the body. It is the largest organ of the integumentary system.

The skin has multiple layers of ectoderm tissue and guards the underlying muscles, bones, ligaments and internal organs. Human skin is similar to that of most other mammals, except that it is not protected by a pelt. Though nearly all human skin is covered with hair follicles, it appears hairless.

There are two general types of skin, hairy and glabrous skin. The adjective **cutaneous** literally means "of the skin". Skin plays a key role in protecting (the body) against pathogens and excessive water loss. Its other functions are insulation, temperature regulation, sensation, synthesis of vitamin D, and the protection of vitamin B folates. Severely damaged skin will try to heal by forming scar tissue. This is often discolored and depigmented.

Functions

Skin performs the following functions:

Protection: an anatomical barrier from pathogens and damage between the internal and external environment in bodily defense, Langerhans cells in the skin are part of the adaptive immune system.

Sensation: contains a variety of nerve endings that react to heat and cold, touch, pressure, vibration, and tissue injury, see somatosensory system and haptics.

Heat regulation: the skin contains a blood supply far greater than its requirements which allows precise control of energy loss by radiation, convection and conduction. Dilated blood vessels increase perfusion and heat loss, while constricted vessels greatly reduce cutaneous blood flow and conserve heat.

Control of evaporation: the skin provides a relatively dry and semi-impermeable barrier to fluid loss. Loss of this function contributes to the massive fluid loss in burns.

Aesthetics and communication: others see our skin and can assess our mood, physical state and attractiveness.

Storage and synthesis: acts as a storage center for lipids and water, as well as a means of synthesis of vitamin D by action of UV on certain parts of the skin.

Water resistance: The skin acts as a water resistant barrier so essential nutrients aren't washed out of the body.

RESULT

The present research was the formulation and evaluation of polyherbal cream. The evaluation parameters were coming under results, like the physical evaluation of polyherbal cream, PH of the cream, Spreadability, Washability, non-irritancy test, viscosity and phase separation of the polyherbal pain reliving cream was shown in table 2

DISCUSSION

The present work was the formulation and evaluation of polyherbal cream. This cream formulation was o/w type of emulsion; hence this formulation was easily washed with plane water after application. The prepared formulation was good Spreadability. Viscosity and PH of the cream was good. Cream does not show any type of phase separation during storage. The cream was non-grassy in nature and easily removable after application. The formulation was Nonirritant and not harm to the skin.

CONCLUSION

Formulation of cream was done by slab method and further evaluated by various evaluation parameters such as physical properties, PH, Spreadability, Washability, non-irritancy test, viscosity and phase separation of cream and gives good results.

Herbal product have been applied to human healthcare for immemorial time. Drug discovery in ancient was largely by serendipity and based on clinical practices. As understanding of therapeutic benefits deepens and demand for natural product increase, previously by chance discoveries evolve into active searches for new medicines. Many herbal product presently prescribed by physicians are either directly isolated from plant or are artificially

modified versions of natural product. Scientists are looking for lead compound with specific structures and pharmacological effects often from natural sources. The tremendous progress made in life sciences has not only revealed many pathological process of diseases. The advantageous and permits certain natural compounds that are difficult to isolate and purify and compounds that are difficult to synthesize to be assayed. Natural product are beneficial without any side effect

By using turmeric, papaya, aloe-vera, neem and tulsi the cream showed multipurpose effect and all herbal ingredients were used showed different significant activities. Based on the results we can say that all formulation F1C, F2C and F3C were stable at room temperature and can be a safely used on the skin. Therefore according to statement of F2C is better formulation than F1C and F3C of formulation of herbal cream. The present work focuses on the potential of herbal extract from cosmetic purpose. The uses of cosmetic have been increased in many folds in personal care system. The uses bioactive ingredient in cosmetic influence biological functions of skin and provide nutrients necessary for the healthy skin. The prepared formulation showed good spreadability, no evidence of phase separation and good consistency during the study period. The prepared herbal cream has best properties and having nutritional values using less chemical which protects the skin from the various skin problem. Since the cream was prepared by using simple ingredients and simple method so the cream is also economical. The herbal cosmetic formulation is safe to use and it can be used as the provision of a barrier to protect skin. The result of different tests of cream showed that the formation could be used topically in order to protect skin against damage. Natural remedies are more acceptable in the belief that they are safer with fewer side effects than the synthetic ones. Further research will carry out to check scientifically the synergistic action of formulation.

REFERANCES

- [1]. MV Vishvanathan, PM Unnikrishnan, Kalsuko Komatsu, Hirotohi Fushimi. A brief introduction to Ayurvedic system of medicine and some of its problems. Indian J Traditional Knowledge 2003;2:159-69.
- [2]. Newall CA, Anderson LA, Phillipson JD. Herbal medicines. A guide for health-care professionals. London: The Pharmaceutical Press, 1996.
- [3]. Atherton P. Aloe Vera revisited. Br J Phytotherapy 1998; 4: 176-183.
- [4]. Krishnaveni M, Mirunalini S. Therapeutic potential of Phyllanthus emblica (amla): The Ayurvedic wonders. J Basic Clin Physiol Pharmacol 2010; 21:93-105.
- [5]. Patel SS, Goyal RK. Emblica Officinalis Geart: A Comprehensive Review on Photochemistry, Pharmacology and Ethno medicinal Uses. Res J Med Plant 2012;6:6-16
- [6]. Chandrashekhar B. Badwaik, Mr. Sharad Manapure, Dr. Suhas Padmane, Dr. Sheelpriya Walde. EVALUATION OF IN-VITRO ANTIOXIDANT ACTIVITY OF ERAGROSTISPILOSA. WORLD JOURNAL OF

PHARMACY AND PHARMACEUTICAL SCIENCES.2021;10(7):1025-1032.

[7]. Chandrashekhar Bhojraj Badwaik, Dr.Suhas padmane, Dr.Sheelpriya Walde, Mr.Sharad Manapure. NATURAL PRODUCTS IN ANTICANCER THERAPY. International Journal of Advances in Engineering and Management (IJAEM).2021;3(4):605-607.

[8]. Chandrashekhar B. Badwaik*, Updesh B. Lade, Prachi Barsagade, Santosh N. Ghotefode. Madhuri S. Nandgaye, GOUT-A REVIEW ON PATHOPHYSIOLOGY, ETIOLOGY,

AND TREATMENT. Journal of Emerging Technologies and Innovative Research (JETIR).2022;9(1):d688-d694.

[9]. Madhuri S. Nandgaye, Ajay Dongarwar, Upadesh B. Lade, Santosh N. Ghotefode, Tikesh Agrawal, Chandrashekhar B. Badwaik. "Phytochemical Screening and Evaluation of Antibacterial & Antifungal Activity of Terminalia Bellerica Bark". Journal of Emerging Technologies and Innovative Research (JETIR).2022;9(1):d170-d182.

[10]. Sheila John , Priyadarshini S ,Sarah Jane Monica ,Sivaraj C ,Arumugam P.IN VITRO ANTIOXIDANT AND ANTIMICROBIAL PROPERTIES OF CUCUMIS SATIVUS L. PEEL EXTRACTS. INTERNATIONALRESEARCH JOURNAL OF PHARMACY. 2018, 9(1):56-60.

[11]. Tanweer S., Ahmad S., Albert H. Burns. 24(6):539-551. Seyed A., Seyed H.,Mohammad A. (1996). Management of psoriasis with Aloe vera extract in a hydrophilic cream: a placebo controlled, double,blind study. Tropical Medicine & International Health. 1

