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Formulation and Evaluation of Herbal Wound Healing Cream

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Abstract: *This study explores the formulation and evaluation of a polyherbal wound healing cream using natural extracts of Aloe vera, Neem (Azadirachta indica), Tulsi (Ocimum sanctum), and Turmeric (Curcuma longa)—all known for their antimicrobial, anti-inflammatory, and skin-regenerative properties. The cream was prepared through standardized extraction methods followed by formulation with appropriate excipients like beeswax, liquid paraffin, and borax to ensure stability, spreadability, and safety.*

The formulated cream was subjected to evaluation based on key pharmaceutical parameters including pH (6.57), consistency (smooth), spreadability, washability, and skin irritation tests, all of which confirmed its suitability for topical application. No signs of irritation or phase separation were observed, and the formulation demonstrated excellent physical stability and compatibility with skin pH.

This herbal cream provides a safe, natural, and cost-effective alternative to synthetic wound healing treatments. It promotes faster wound recovery by enhancing collagen synthesis, reducing microbial load, and minimizing inflammation without causing adverse effects. The findings highlight the potential of combining traditional plant-based remedies with modern pharmaceutical techniques for effective dermatological therapy..

Keywords: *Azadirachta indica*

I. INTRODUCTION

Creams are the semisolid dosage forms and intended for topical application to the skin placed on the surface of eye, or used nasally, vaginally or rectally for therapeutic or protective action or cosmetic function. These preparations are used for the localized effects produced at the site of their application by drug penetration in to the underlying layer of skin or mucous membrane. These products are designed to deliver drug into the skin in treating dermal disorders, with the skin as the target organ.

Creams are semi-solid emulsions of oil and water. They are divided into two types: oil-in-water (O/W) creams which are composed of small droplets of oil dispersed in a continuous phase, and water-in-oil (W/O) creams which are composed of small droplets of water dispersed in a continuous oily phase. Oil-in-water creams are more comfortable and cosmetically acceptable as they are less greasy and more easily washed off using water. Water-in-oil creams are more difficult to handle but many drugs which are incorporated into creams are hydrophobic and will be released more readily from a water-in-oil cream than an oil-in-water cream. Water-in-oil creams are also more moisturizing as they provide an oily barrier which reduces water loss from the stratum corneum, the outermost layer of the skin.

World Health Organization (WHO) as well our country has been promoting traditional medicine because they are less expensive, easily available and comprehensive, especially in developing countries. Skin care preparations are designed to exert local activity when applied over the skin mucous membrane; Examples are creams, lotions, ointments and pastes in the treatment of burns, bacterial and superficial fungal infections. Cream formulations are mostly preferred because it is easily spreadable and washable with water.

The manifestations of skin diseases are many and many at times the treatment is to be continued for a long time. The need for a safe and effective herbal skin cream is to treat various skin diseases like wounds, acne vulgaris, cracks, psoriasis and various types of skin diseases.

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Although various types of cream is considered for wound healing but these are still appears to be limited in rate of tissue regeneration. Hence after a depth review regarding pathogenesis as well as different traditional and alternative therapy for wound healing It is generally acceptable that herbal products are gaining importance in management of wound healing because of its high acceptability and good toleration.

The use of medicinal plants in the management of acute and chronic wounds is common in most conventional medicine practices in the world. Plants and their extracts have immense potential for the management and treatment of wound. For thousands of years ago, medicinal plants are considered to be the safest source of medication to treat certain sorts of diseases, accelerate the wound healing cycle and regenerate tissue at the wound site which provides certain anti-bacterial activities.

India has a rich tradition of plant-based knowledge on healthcare. A large number of plants/plant extracts/decoctions or pastes are equally used by tribals and folklore traditions in India for treatment of cuts, wounds, and burn.We have used three herbal ingredients in our preparation which are Aloe Vera gel, Neem, Tulsi. Aloe Vera gel is used as a moisturizer, to reduce pimples and acne and also used for treatment of burn wounds. Neem is used as an antifungal and anti-inflammatory and it is also used to reduce scar, pigmentation, redness and itching of the skin. Tulsi is used to add glow to the skin and to promote wound healing.

Wound and Wound Healing

A loss or interruption of the cellular, anatomical, or functional continuity of the deep skin tissue or the living tissues may be referred to as a wound. Physical, chemical, thermal, viral, microbial, or immunological stress to the skin's surface can all result in wounds. In addition to having a negative impact on the patient's bodily and mental health, wounds can also be very expensive and leave long- lasting scars. Generally speaking, a wound is a physical injury that opens up or breaks the skin.

Wound:

Wounds are a major case of physical disabilities 1. Wounds may be defined as loss or breaking of cellular and anatomic or functional continuity of the deep skin tissue or the living tissues. The most common symptoms wound are bleeding, loss of functions, heat, redness around the wound, painful or throbbing sensation, swelling of local tissue, oozing from wound.

Classification Wound Types:

I. Acute Wound:

Acute wound is defined as the traumatic loss of normal structure and function to recently uninjured tissue. Acute wound healing is the highly regulated process of cellular, humoral, and molecular events activated at the time of injury and resulting in a time-dependent but predictable and orderly pattern of tissue repair.

II. Chronic Wound:

Chronic wounds are defined as wounds that have failed to proceed through an orderly and timely process to produce anatomic and functional integrity, or preceded through the repair process without establishing a sustained anatomic and functional result.

Wound Healing

Wound healing is the dynamic process take place by regeneration or repair of broken tissue. The process of wound healing consists of integrated cellular and biochemical events leading to reestablishment of structural and functional integrity with regain of strength of injured tissue.

Wound healing consists of a complex, well-organised cascade of biochemical and cellular events that involves tissue repairs and regeneration. The aim of wound care, which must occur in a physiologic environment conducive to tissue repair and regeneration, is to promote healing in the shortest time possible, exclude secondary infections and minimize

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pain, discomfort and scarring. The entire process of wound healing, which begins at the moment of injury and may continue for prolonged period. These processes of healing are known to be influenced by several factors such as infections, nutrition, drugs and hormones, type and sites of wound, and certain disease conditions.

Normal Wound Healing Process:

Normal wound healing is a complex process, which involves a coordination of various events such as coagulation, inflammatory response and proliferation of connective tissues.

In the first phase of the healing cascade that is hemostasis, platelets are activated, and growth factors and cytokines along with other substances are secreted, which in turn stimulates the mechanisms of tissue repairing resulting in inflammation, proliferation, angiogenesis, deposition of extracellular matrix (ECM), and finally tissue remodeling.

• Hemostasis:

Hemostasis starts immediately after injury and cause arrest of bleeding by formation of platelets. It involves vascular constriction, platelet aggregation & fibrin formation.

• Inflammation:

It lasts for 4-6 days. It involves hemostatic mechanism to prevent blood loss from the site of wound.

• Proliferation:

It starts after inflammation which lasts for 5-21 days. It involves the formation of granulation tissue, angiogenesis, re - epithelialization.

• Remodeling:

This phase lasts for 3 weeks -2 years. It involves the Synthesis of collagen and scar formation.

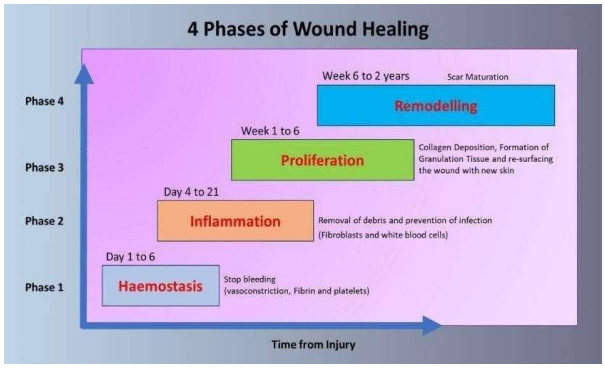

Figure 1

Factor Affecting Wound Healing:

- Improper diet.
- Infection at the wound site.
- Insufficient oxygen supply and tissue
- Perfusion to the wound area.
- Drugs.
- Elderly age.
- Diabetes and other diseases condition.

Benefits of herbal wound healing cream:

• Promote healing
• Reduce inflammation
• Antimicrobial action

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• Herbal wound healing creams are generally safe for use on all skin types.
• Herbal creams often contain ingredients that help keep the wound area moisturized, creating an optimal environment for healing.
• Reduced Risk of Side Effects
• Herbal wound healing creams offer a natural and potentially effective alternative for promoting wound healing while minimizing the risk of side effects.

II. LITERATURE OF REVIEW

1. N. S. Jagtap et al[1], (2009) – The aerial parts of Centella asiatica (L.) Urban and rhizomes Curcuma longa (L.) were collected, dried undershade and extracted with ethanol and water respectively. Each extract and Aloe gel was added with appropriate proportion in cream base and evaluated for wound healing activity against povidone iodine ointment. In excision wound model the complete wound healing was observed with cream formulation I and II treated rats was observed in 18 days where as povidone iodine ointment took 16 days.
2. P. F. Builders et al[2], (2013) – Wound healing agents support the natural healing process, reduce trauma and likelihood of secondary infections and hasten wound closure. The wound healing activities of water in oil cream of the methanol extract of Hibiscus Sabdariffa L. (Malvaceae) was evaluated in rats with superficial skin excision wounds. Creams containing H. sabdariffa extract showed significant ($P<0.05$) and concentration dependent wound healing activities.
3. Manimaran S et.al3 (2014) – The aim of the present work is to develop and standardize the topical herbal cream formulations using well documented herbs. Topical herb cream formulations were prepared by using aqueous extracts. The wound healing activity was carried out for the formulations using Nitrofurazone 0.2% w/w cream as standard drug. The present study was observed that the prepared topical herbal cream formulations showed significant antimicrobial and wound healing activity.
4. Vamsi S, Satish C et al4(2014) – The present investigation was aimed to formulate and evaluate the polyherbal wound healing ointment constituting the methanolic extracts of Lantana camara (leaves), Tamarindus indicus (leaves), Psidium guajava (leaves) and acetone extract of Curcuma longa (rhizomes).
5. Rohit Adhav et.al5 (2015)- The traditional Indian medicine – Ayurveda, describes various herbs, fats, oils and minerals with anti-aging as well as wound healing properties. Wounds are the result of injuries to the skin that disrupt the soft tissue. Wound healing can be defined as a complex dynamic process results in the restoration of anatomic continuity and function. Various plant products have been used in the treatment of wounds over the years.
6. Rani Shahu et.al6 (2016)- A wound is a breakage in tissue continuity that can be produced by physical, chemical and thermal damage. It is a generally called as physical injury that cause opening and breaking of skin. Healing of chronic cutaneous wound is a big problem and it Involves the restoration of continuity after wounding. Wounds are treated with various medicinal herbs or their extracts. Plants provide various remedies to mankind and herbal plants are nature's gift used to treat wound with much lesser side effects.
7. Soumya et .al7, (2020) – Herbal medicines are being used by about 80% of the world population primarily in the developing countries for primary health care. The herbal creams namely F1 to F6 were formulated from the ethanol extract of Murraya Koenigii and Cajanus Cajan. Then evaluated for parameters like physical properties, pH, viscosity, Spreadability and stability of the for-Mulated cream.
8. Yogesh Shivhare et .al8, (2020) – The present study was to formulate and evaluate the herbal cream comprising extracts of different medicinal plants. Based on the resultant findings obtained from the different evaluation parameters, it can be concluded that prepared herbal formulation was stable and safe to use in wound healing activity.
9. Rai Pratikcha et.al9, (2020) -The current study, sheep butter cream was formulated and evaluated for its wound healing properties for the purpose of scientific validation, standardization, safety, efficiency and evaluation.

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10. S.P. Ekhande et.al10(2020) – Medicinal plants have an important role in the healthcare system and are a major source of raw material for development of traditional or conventional medicines. Wound Healing is a natural process by which the body itself overcomes the damage to the tissue but the rate of healing is slow. Healing is a complex dynamic process that results in the restoration of anatomic continuity and function.
11. Thiviya Sunmugam et.al11, (2021) – The present study was carried out to prepare cream formulations comprising extract of sea cucumber with different type of oil phase, namely F1 (olive oil), F2 (tea tree oil) and F3 (lemongrass oil) to assess the influence of the oil on the physicochemical properties and the wound healing efficiency of the creams.
12. Nasim Golkar et. al12, (2021)- Wound is a break in the integrity of the skin produced by injury, illness, or operation. Wound healing is an essential dynamic biological/physiological process that occurs in response to tissue damage. In the current study, three topical cold cream Formulations containing postbiotics. The pleasing wound healing characteristics of the topical postbiotics cold creams through the in vivo experiment suggest that formulations Containing postbiotics can be considered as a promising nominee for wound healing approaches.
13. Mukesh Kumar et. al13(2022) – The aim of present study is formulation and evaluation of herbal cream. By using Aloe Vera gel, Neem and Tulsi the cream showed a multipurpose effect and all these herbal ingredients showed significant different activities. Based on results and discussion, the formulations were stable at room temperature and can be safely used on the skin.
14. Manoj D. Jadhav et .al14, (2023) – The development of medical science, wound care is continually changing. Professionals in wound care are still searching for the ideal dressing material since they are up against a number of obstacles. In this study, creams were created based on an analysis of the effectiveness of plant extracts in treating wounds. Utilizing various evaluation techniques, the product's quality was evaluated. From the current study, it can be inferred that creams containing herbal extracts with wound-healing properties can be created and used to provide a skin barrier.

III. AIM AND OBJECTIVE

Aim: To formulate and evaluate cream for wound healing activity.

Objective:

• The purpose of the present investigation is to formulate and evaluate a herbal skin cream for wound healing.
• To formulate wound herbal wound healing cream by using ingredients such as aloe Vera, turmeric, neem and tulsi.
• This study was done for comparative evaluation of different herbal formulations used for topical delivery of therapeutic Agents at the time of injury to accelerate skin repair in the shortest time possible, with minimal pain, discomfort and scarring to the patient during the wound healing process
• To promote faster healing of wounds by providing natural ingredients known for their wound- healing properties.
• To provide an herbal formulation which provides an inexpensive alternative wound healing therapy, which does not have undesirable side-effects.
• Then the formulated skin is evaluated for parameters like physical properties, pH, viscosity, spreadability and stability of the formulated cream.
• It is a general objective of the invention to provide a novel herbal formulation for wound healing and its method of manufacture. Yet another objective is to provide a herbal formulation which provides an inexpensive alternative wound healing therapy, which does not have undesirable side-effects. Another objective of the present invention is to disclose a herbal formulation which is easy to manufacture.

IV. MATERIAL AND EQUIPMENT

1. CURCUMA LONGA:

Synonyms: Turmeric, Haldi
Biological Sources: It obtained from the dried rhizomes of curcuma Longa.

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Family: Zingiberaceae
Uses:
It is used as a antimicrobial age
It has an anti-inflammatory property
Its antibacterial properties make turmeric a natural alternative for cleaning surfaces and disinfecting wounds.
It has antiseptic properties.

Fig. 2. Curcuma Longa

2. ALOE VERA

Synonyms: Ghritkumari, Korphad, Aloe
Biological Source: It consist of dried or fresh juice collected by incision from the basis of the leaves of various species of Aloe Barbadensis, Aloe Spicata. Aloe perry.
Family: Liliacae
Uses: Anti-inflammatory properties can reduce pain, swelling, and soreness of wounds or injuries.

Fig.3. Aloe Vera

3. AZADIRACHTAINDICA

Synonyms: KaduLimba, Neem,
Biological Sources: It consists of the fresh or dried leaves and seed oil of Azadirachta indica
Family: Meliaceae
Uses: Anti-bacterial, Anti-fungal and Anti-viral properties of neem Promote wound healing, relieves skin dryness, itching and redness.

Fig.4.Azadirachtaindica

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4. TULSI:

Synonyms: Holy basil, Sacred basil

Biological Sources: Tulsi consists of fresh and dried leaves of Ocimum sanctum Linn.

Family: Labiatae

Uses: Tulsi has been used in curing wounds and infections owing to the combination of antiviral, antifungal, antibacterial, and antifungal properties in the plant.

It also has anti-inflammatory properties that help in reducing inflammation and healing wounds quickly.

Fig.5. Tulsi

EQUIPMENT:

1) Breaker
2) Glass rod
3) Triple stand
4) China dish
5) Bunsen Burner
6) Funnel
7) Filter paper
8) Measuring cylinder

Figure.6. Equipment

V. METHODOLOGY AND EXPERIMENTS

Extraction of turmeric:

Stir 1 g of turmeric powder with 10 ml of distilled water in a 250 ml volumetric flask that has been heated in a water bath for 5 to 10 minutes at 80°C to 100°C. After filtering it, turmeric extract is produced.

Extraction of Aloe Vera:

Mature, healthy and fresh aloe Vera leaves were collected and washed with distilled water. Then after proper drying of leaves in hot air oven, the outer part of the leaf was dissected longitudinally using a sterile knife. Then the aloe Vera gel that is the colorless parenchymatous tissue was removed using the sterile knife. Then it is filtered using muslin cloth to

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remove the fibers and impurities. Then the filtrate or the filter product which is a clear aloe Vera gel was used in the preparation.

Extraction of Neem:

Neem leaves were collected and washed with distilled water and dried in hot air oven. After proper drying, leaves were powdered. Take 5 gm neem powder in 20 ml ethano at 100°C for 5 to 10 minutes. Then filter it by filter paper and clear solution is obtained.

Extraction of Tulsi:

Tulsi leaves were collected and washed with distilled water and dried hot air oven. Then after proper drying, the leaves were powdered. Then 1 gm tulsi leaf powder+10 ml ethanol was taken in a volumetric flask. Then the solution was heated on water bath at 80°C to 100°C for 5 to 10 minutes then filtered the solution use by filter paper and clear extract of tulsi leaves.

Figure.5: Extraction of herbal plants.

Table 1: Formula for formulation

Sr.No.	Ingredients	Quantity
1	Turmeric extract	2.7 ml
2	Aloe Vera extract	2.8 ml
3	Neem extract	1.7 ml
4	Tulsi extract	1 ml
5	Bees wax	5.45 gm
6	Liquid paraffin	18.1ml
7	Borax	0.36 gm
8	Methyl Paraben	0.03 gm
9	Distilled water	q.s
10	Rose water	q.s

Table 2: Ingredients and their roles

Sr. No.	Ingredients	Roles
1	Turmeric	Antiseptics & Anti-inflammatory
2	Aloe Vera	Anti-aging, reduce acne
3	Neem	Relieves skin dryness Promote wound healing,
4	Tulsi	Antibacterial, add glow to face
5	Beeswax	Emulsifying agent
6	Liquid paraffin	Lubricating agent
7	Borax	Alkaline agent
8	Methyl paraben	Preservatives
9	Distilled water	Vehicle
10	Rose water	Fragrance

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Formulation of Cream:

The Herbal Cream was prepared by the 4 extracts (turmeric extract, Tulsi extract. Neem extract, Aloe vera extract) The ingredients for the herbal cream preparation were weighed accurately. The formulation trails were done as per formula given in (Table 1). Take Liquid paraffin and bees wax and heat at 75°C in a borosilicate glass breaker (oil phase). Borax and methyl paraben should be dissolved in distilled water in another beaker while maintaining a temperature of 75°C with a water bath. The aqueous phase of the solution should be stirred with a glass rod until all solid particles are dissolved. Gently pour the hot aqueous phase into the heated oily phase while continuing to mix. Aloe-vera extract. Tulsi extract. Acacia Auriculiformis extract, and turmeric extract should be added right away after combining the two stages. Glass rod blending should continue until a smooth cream emerges. Rose oil should be added as a fragrance once the cream has formed.

Evaluation of Herbal Wound Healing Cream:

The formulation was evaluated for different pharmaceutical parameters.

I. Physical evaluation of the formulation:

Appearance: Semisolid in nature. Color: faint Green.

Transparency: Non- transparent. Odor: pleasant

II. Homogeneity Test:

The homogeneity of the formulation was studied by visual examination and touch.

III. Spreadability:

Small amount of cream was rubbed on the back of the hand and the ease with which it is spread over the skin was noted.

IV. Determination of PH:

The pH value of freshly formulated emulsion was determined using a digital pH meter at room temperature. According to the results the pH of the formulation was found to be nearer to skin PH so it can be safely used on the skin.

V. Consistency:

A small amount of ointment was slowly rubbed between the thumb and fore finger to gauge consistency of the cream. The consistency of cream is smooth.

VI. Washability:

A small amount of ointment was rubbed on the back of the hand, after which it was washed off with warm water.

VII. Irritancy Test:

Mark the area (1 cm2) on the left-hand dorsal surface. Then the cream was applied to that area and the time was noted. Then it is checked for irritancy, erythema, and edemait' any for an interval up to 24 h and reported According to the results the formulation showed no sign of irritancy, erythema and edema.

VIII. Antimicrobial Activity:

When the burn wound has been occurred then there may be chances for bacterial or microbial infection from environment and Aloe Vera and Turmeric act as antimicrobial and anti-inflammatory activity.

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IX. Phase separation:

Prepared cream was kept in a closed container at a temperature of 25-100 °C away from light. Then phase separation was checked for 24 h for 30 d. According to results no phase separation in observe.

VI. RESULT AND DISCUSSION:

Result:

 This cream could become a media to use these medicinal properties effectively and easily as simple dosage form.

 Natural Remedies are more acceptable as they are safer with fewer side effects than synthetic once, so a herbal wound healing formulation is nontoxic, safe, effective and improve patient compliance as it contain herbal ingredient. From the ancient time.

 These prepared herbal wound healing cream formulations complied with the physical evaluation parameters like pH, physical stability, viscosity, spreadability, skin irritancy test, determination of consistency, antimicrobial activity, wash ability Stability studies were found to be acceptable which were notified in Table 3.

Table 3: Result

EVALUATION PARAMETERS	OBSERVATION
Appearance	Semisolid in nature
Colour	Faint Green
Odour	Pleasant
pH	6.57
Consistency	Smooth
Spreadability	Easily spreadable
Skin irritation test	No irritation
Phase separation	No phase separation
Wash ability	Easily washable

Discussion:

A. Barbadensis miller, Curcuma Longa and A. indica is widely known for their medicinal uses and also possess antiseptic, tissue penetrating, and anti-inflammatory qualities. Due to the therapeutic values of A. indica and A. Barbadensis miller, they as a combination could be used in wound healing. Curcumin from C. longa is responsible for closure of wound and increase in collagen synthesis. A. Barbadensis increased degree of cross-linking as seen by increased aldehyde content and decreased acid solubility. These all factors may be responsible for wound healing activity of formulations. There isn't already a commercial wound healing cream on the market that contains both A. indica, turmeric, Tulsi and A. Barbadensis miller. Therefore, in this study, various formulations containing varying concentrations of A. indica, turmeric, Tulsi and A. barbadensis miller plant extracts were prepared and characterized using standard protocols. The homogeneity test of creams revealed that their composition was uniform. The formulations appeared to be faint green colour The smear test demonstrated that the formulations had good moisturizing properties and were non-greasy. The fact that prepared creams could be easily removed with tap water suggested that prepared herbal creams might be utilized, which supports the earlier conclusion. The irritancy test demonstrated that formulated creams did not result in an allergic reaction or skin irritation, proving their safety for use. The literature supported the findings. Further according to earlier research, Oil/water emulsions are stable for the formulation of creams. The pH of skin creams is a crucial factor in determining how effective they are.

VII. CONCLUSION

Formulation of Herbal Skin Cream for wound healing was successfully developed that met the relevant pharmaceutical characteristics. The cream demonstrated wound healing effects from the usage of turmeric, aloe vera, neem, and tulsi, and all of the herbal constituents showed various noteworthy actions. The present work focuses on the potential of

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herbal extracts from cosmetic purposes. The prepared formulations showed good spreadability, no evidence of phase separation and good consistency during the study period. Stability parameters like visual appearance, nature and fragrance of the formulations showed that there was no significant variation during the study period. From the present study it can be concluded that it is possible to develop creams containing herbal extracts and can be used as the provision of a barrier to protect skin. Plants are more potent healers because they promote the repair mechanism in the natural way. The wound healing property of the formulated herbal skin cream has yet to be experimented and will be done in future.

REFERENCES

1. Soumya, Shaik. Harun Rasheed1, SY. Manjunath2.Formulation and evaluation of herbal cream containing extracts of Murraya Koenigii and Cajanus Cajan International Journal of Research in Phytochemical and Pharmacological Sciences 2020;1(2), 58-63
2. Vamsi S, Satish C, Nagaveni K, Jyothi M Joy, Latha P. Formulation and Evaluation of Polyherbal Wound Healing Ointment. International Journal of Pharma Research & Review, April 2014; 3(4):66-73
3. Yogesh Shivhare, Alok Pal Jain Potential Emphasis of Formulated Herbal Cream on Wound Healing. Asian Journal of Pharmaceutical Research and Development. 2020; 8(1): 73-78.
4. Manimaran S, Nithya and Praveen T.K. Development and screening of topical herbal cream formulation for antimicrobial and Wound healing activity International Journal of Biological & Pharmaceutical Research. A. 2014; 5(5): 383-388.
5. Gautmi D. UBHARANI, Punitkumar R. BHATT1, Kishorkumar R. SORATHIA, Bhanubhai N. SUHAGIA. Preliminary Wound Healing Activity of Polyherbal Formulation Containing Cinnamon zeylanicum, Centella asiatica and Moringa oleifera. Hacettepe University Journal of the Faculty of Pharmacy Volume 43 / Number 3 / September 2023 / pp. 204-211.
6. Prafulla Sabale, Bhargav Bhimani, Chirag Prajapati and Vidya Sabale an overview of medicinal plants as wound healers. Journal of Applied Pharmaceutical Science Vol. 2 (1), pp. 143-150, November, 2012.
7. Mukesh kumar, Nitin Sahu, Md wasim rain, Md Israr, Md. Ashraf Shah, Dr Jagdish Chandra Rathi, Rahul Sharma, Pooja Malviya. Formulation and Evaluation of Herbal Cream. International Journal of Pharmaceutical Research and Applications Volume 7, Issue 6 Nov-Dec 2022, pp: 737-742.
8. Manoj D. Jadhav, Mangesh P. Ubale, Shubham V. Kadam, and Ansari M. Ehtesham. Formulation and Evaluation of Herbal Skin Cream for Wound Healing Activity. International Research Journal of Pharmacy and Medical Sciences (IRJPMS), Volume 6, Issue 4, pp. 8-12, 2023.
9. Rohit Adhav, Piyush Mantry and G. N. Darwhekar. WOUND HEALING MEDICINAL PLANT OF INDIA: A REVIEW. International Journal of Pharmacognosy, 2015; 2(1): 6-10. Doi: 10.13040/IJPSR.0975-8232.2(1).6-10.
10. Rai Pratikcha, Das Sujit, Ghosh Tanmoy, Deveswaran Rajamanickam, Mohanta Tanmay, Roy Kalyan. Development of Sheep Butter Based Cream for Dermal Wound Healing. International Journal of Pharmaceutical Investigation, Vol 10, Issue 1, Jan- Mar, 2020
11. Hina Imran, Atiq-ur-Rehman, Tehmina Sohail, Sohail Shaukat and Ayesha Khokar.Wound Healing Potential/Activity of Polyherbal Ointment Containing Salvadora persica, Azadirachta indica and Calendula officinalis Extracts: An Experimental Study, Pak j, sei ind, res. Ser. H. biol. Sci. 2022 658(1) 55-61
12. S.P. Ekhande, K.S. Rathi, M. P. Patil, S.J. Kshirsagar. Review Article Wound Healing with Medicinal Plants. International Journal of Pharmaceutical and Medicinal Research, 2020; 8(3):18-22
13. N. S. Jagtap, S.S. Khadabadi, I.A. Farooqui, V.P. Nalamwar, H.A. Sawarkar. Development and Evaluation of Herbal Wound Healing Formulation. International Journal of PharmTech Research Vol.1, No.4, pp 1104-1108, Oct-Dec 2009
14. Thiviya Sunnugam , Hanisah Azhari , NG shiow-Fern & Fazren Azmi.Influence of the Oil Phase on the Wound Healing Activity of Sea Cucumber Extract-Based Cream Formulations. Sains Malaysiana 50(3) (2021): 839-847

IJARSCT
International Journal of Advanced Research in Science, Communication and Technology
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
ISSN: 2581-9429 Volume 6, Issue 13, May 2026 Impact Factor: 8.2

15. P. F. BUILDERS*, B. KABELE-TOGE1, M. BUILDERS2, B. A. CHINDO3,
Wound Healing Potential of Formulated Extract from Hibiscus Sabdariffa Calyx. Indian Journal of Pharmaceutical Sciences January – February 2013
16. Nasim Golkar, Yousef Ashoori, Reza Heidari, Navid Omidifar, Seyedeh Narjes Abootalebi, Milad Mohkamand , Ahmad Gholami .A Novel Effective Formulation of Bioactive Compounds for Wound Healing: Preparation, In Vivo Characterization, and Comparison of Various Postbiotics Cold Creams in a Rat Model .Evidence-Based Complementary and Alternative Medicine Volume 2021, Article ID 8577116, 13 Pages
17. Rani Shalu, Amanjot, Gautam Surya Prakash, Kanwar Kapil and Kaur Sukhbir WOUND HEALING POTENTIAL OF MEDICINAL PLANTS WITH THEIR SCREENING MODELS: A COMPREHENSIVE REVIEW. Journal of Drug Delivery & Therapeutics. 2016; 6(1):56-66
18. Yogesh Sharma, G. Jeyabalan, Ramandeep Singh, Alok Semwal.Current Aspects of Wound Healing Agents from Medicinal Plants: A Review. Journal of Medicinal Plants Studies Year: 2013, Volume: 1. Issue: 3 First page: (1) Last page (11) ISSN: 2320-3862
19. Mane snehal.L., Quazi Rubia, Dr. Joshi Amol, Patil Mayuri.Formulation and Evaluation of herbal antiseptic burn cream.International Journal of Research and Analytical Reviews , April 2020, Volume 7, Issue 2
20. Nikhil Nitin Navindgikar, K. A. Kamalapurkar, Prashant S. Chavan. Formulation and Evaluation of Multipurpose Herbal Cream. Int J Curr Pharm Res, Vol 12, Issue 3, 25-30
21. Sandra Namunana, Stephen Lutoti, Grace Nyamaizi, Gerald Agaba, Irene Apun, Charles Ssebunnya, Gladys Mercy Tenywa, Raphael Wangalwa, Bruhan Kaggwa, Pakoyo Fadhiru Kamba, e, Patrick Ogwang Engeu. Formulation, Development and Validation of a Wound Healing Herbal Ointment from Extracts of Bidens pilosa and Aloe Barbadensis.J Pharm Pharmacol Res 2018; 2 (2): 032-038
22. Linekha R, Pooranachandran P, Gokulakrishnan J, Prabhu V, Rahul S, Ashwin Kumar B, Abinaya K. Potential Herbal Wound Healing Cream: Formulation and In-vitro Evaluation. International Journal of Applied Engineering Research ISSN 0973-4562 Volume 18, Number 1 (2023) pp. 42-46
23. Akash S. Mali, Karekar P, Dr. Yadav A. Formulation and Evaluation of Multipurpose Herbal Cream. International Journal of Science and Research (IJSR) Index Copernicus Value (2013): 6.14| Impact Factor (2014): 5.611 ISSN (Online): 2319-7064