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# **Review Article**

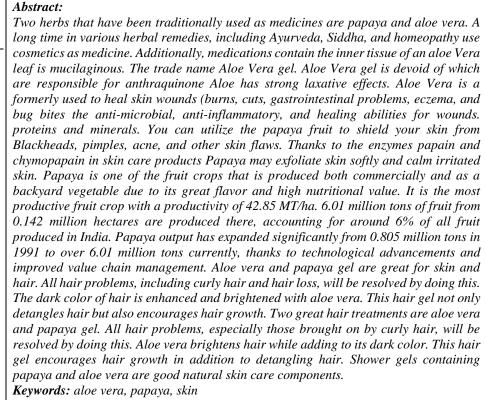
# A Compressive Review paper of aloe Vera and Papaya gel for skin and hair Health

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#### **Introduction:**

Aloe Vera, the lack of adverse effects of herbal cosmetics has increased demand for them. The products used on the body are called cosmetics. Face creams provide toning and softening effects and are used as cosmetics. One of the most significant systems of medicine that uses herbal plants and extracts for the treatment or management of various Disease states is the Ayurvedic system of medicine. Aloe Vera is a cactus-like plant that is widely cultivated and does well in hot, dry climates [1]. The 300-species-strong Liliaceae family includes the aloe species Aloe barbadensis. Cosmetics and several pharmaceutical products are made with aloe Vera gel, a mucilaginous tissue found in the center of aloe Vera leaves. Aloe Vera gel does not contain anthraquinone [2].

- > Succulent plants of the aloe genus include aloe Vera. It is a perennial plant that is evergreen and linked to the Arabian perennial. It is grown for both culinary and medicinal uses. Additionally, it naturally grows somewhere that is tropical.
- Aloe Vera can reach heights of 12 to 16 inches. Fibrous roots grow from it. There are no stems on it. It has thick, recently formed leaves with 2-inch-wide bases and sharp points that can grow up to 18 inches long.
- Aloe vera is a cactus like plant growing in the warmer climate of the world.
- It is a green and fleshy with spines and is devoid of any stem.
- Aloe vera is a very popular herbal remedy [3.1].
- ➤ It has been used widely for a number of ailments with promising results.

#### Common name

- Aloes
- Aloe vera
- Barbados aloe
- Curacao aloe
- Kumara
- Luhui

#### **ACTIVE COMPONENTS:**

- Vitamin: it contains vitamin A, C and E which are antioxidant.
- Enzymes: It contains 8 enzymes. like as: Amylase, Bradikinase, Carbopeptidase, catalase, cellulose, lipase, peroxidase, aliases, alkaline phosephate.
- Minerals: It provides calcium, copper chromium, selenium, magnesium, zinc, sodium.
- > Sugars: It is providing monosaccharide and polysaccharides.
- ➤ Hormones: Auxins [4].

#### **BENEFITS OF ALOE VERA:**

- 1. It's commonly used as a topical gel for skin issues.
- 2. Some people also consume Aloe Vera juice for potential internal benefits (although this should be done cautiously and ideally under supervision due to potential side effects)
- 3. Prevent kidney stones and protect the body from oxalate in coffee and tea.
- 4. Reduce high blood pressure natural, by treating the cause, not just the symptoms.
- 5. Nourishes the body with mineral, vitamins, enzymes and glyconutrients.
- 6. Halts colon cancer, heal the intestines and lubricates the digestive tract.
- 7. Ends constipation.
- 8. Stabilizes blood sugar.
- 9. Hydrates the skin, accelerates skin repair.
- 10. Aloe Vera plant is also helpful in healing vaginal infection [5,6].



Fig no. 1: Images of aloe Vera

#### ROLES OF ALOE IN SKIN CARE:

- 1. Skin Soothing: Aloe Vera is known for its soothing and moisturizing properties. It can help calm irritated skin and provide relief from conditions like sunburn or rashes.
- 2. Healing Properties: It contains compounds that may aid in wound healing and skin regeneration.
- 3. Anti-inflammatory: Aloe Vera has anti-inflammatory properties which can be beneficial for conditions like acne or psoriasis.
- 4. 4. It works wonders as a moisturizer.
- 5. Aloe vera one of the most powerful skin repairing herbs.
- 6. It help in reducing pain and redness.
- 7. Aloe vera has a steroid like calming action on red and irritated skin.

- 8. Aloe vera helps tiny cuts heal and prevents infection when used topically.
- 9. It works as anti-bacterial and anti-septic action.
- 10. It is very good anti-ageing remedy.
- 11. Aloe vera for 90 days improve wrinkles.
- 12. It is reduce dark patches and fighting against bacteria [7].

## COSMOLOGICALLY IMPORTANCE OF ALOE:

Since ancient times, aloe vera has been used to treat burns and illnesses. Aloe Vera is currently recognized as a necessary component in cosmetics because of advancements in the industry. There are enough amounts of almost twenty amino acids, sodium, calcium, magnesium, enzymes, and vitamins.

**Acne:** - Aloe Vera's anti-inflammatory and immune-boosting properties aid in the healing of acne scars. Cosmetics containing aloe vera may help acne become less severe. It also contains chemical components that aid in preventing the skin's acne from developing.

**Moisturizing Agent:** Aloe Vera is beneficial for hydrating and softening skin as well. Aloe vera creams are easily accessible and leave skin feeling incredibly silky after showering. When applied to the face, aloe vera gel, cream, or lotion creates an excellent shield that protects the skin from dust and other potentially dangerous environmental factors.

**Pigmentation**: Melanin, a pigment, gives human skin its colour. This is known as pigmentation. When melanin is generated in significant amounts, the result is hyperpigmentation. The skin's excessive exposure to the sun is typically to blame for this.

**Skin Eruption**: Aloe vera-based lotions are helpful for treating skin eruptions. The most effective treatment for burns and wounds is aloe vera gel, which has been demonstrated. Aloe vera is actually helpful for skin eruption because of its capacity for cellular regeneration and antibacterial and antifungal properties [5].

#### PAPAYA

The papaya tree normally has one stem and grows to a height of 5 to 10 m (16 to 33 ft.). It is a compact, sparsely branched tree. The only part of the trunk with spirally arranged leaves is the summit. There are visible scars on the lower stem where leaves and fruit were formed. The enormous, strongly palmate lobed leaves have seven lobes and a diameter of 50–70 cm (20–28 in). Every plant part in articulated latecomers contains latex.



Fig no.2: Image of papaya tree

Papaya is also useful as a cosmetic, because one can add papaya to any face pack or can apply it raw on face, because it is rich in antioxidants which as a result enhance your beauty and bring a glow to your skin.

- ➤ This enzyme fro0m papaya also has anti-inflammatory and anti bacterial properties.
- > It can remove dead skin cells, making it a good agent for a wide variety of exfoliating skin care products, including face scrubs, body cleansers, face masks, and peels.
- Papaya is rich in anti-oxidants like, vitamin A, C and E which helps to give you a bright and glowing face [8].
- > Papaya helps to reduce blemishes from your skin.
- Papaya also moisturizes your skin and makes your skin soft and supple.
- > Its incredible skin cleansing properties help to clear the skin pores and prevent acne breakouts. COMMON NAME
- > Pawpaw
- Papaya

### Papaya



Fig No.3: image of papaya fruit

#### **ACTIVE COMPONENTS OF PAPAYA**

The active components contained in seed extract and papaya leaf are.

- > Flavonoids
- Alkaloids
- > Tannins
- Steroids
- > Saponins

## HEALTH BENEFITS OF PAPAYA

Exfoliation: Papaya contains enzymes like papain which can help exfoliate dead skin cells, making it useful for improving skin texture and tone.

Rich in Vitamins: It's high in Vitamin A, C, and E, which are all beneficial for skin health.

Antioxidants: Papaya is rich in antioxidants that can help protect the skin from damage caused by free radicals

- Protection against heart disease
- Rich in antioxidants
- High amount of fiber
- Boosts immunity
- Improves eyes health
- Rich in folic acid
- Help in weight loss
- Gives relief from toothaches
- Fights cancer
- Kills intestinal worms [9]
- Boosts immune system
- Relieves constipation

#### ROLES OF PAPAYA IN THE SKIN

Papaya can be mashed and applied as a facial mask.

Some skincare products include papaya extracts for its benefits

- Removes dead skin cells
- Controls acne
- Reduce wrinkles and fine lines
- Improve skin tone
- Useful in treating skin injuries
- Useful in treating pigmentation
- Used as moisturize and nourish skin
- Slow ageing processes



Fig. No. 4: Papaya's importance in terms of beauty:

You must be wondering how gooseberry may be applied to the skin, then. You can immediately apply it to your skin or take it with honey to get the advantages. If you are having trouble eating this tart fruit, consider making juice out of it. Your skin will benefit from this. The following are some advantages of gooseberries for your skin.

Making papaya paste, applying it to the affected regions of your face, and allowing it to dry for no longer than 15 minutes are other acne treatment options. This will aid in erasing acne-related scars, fine lines, and outbreaks. It reduces the probability of breakouts and acne scarring because it is a natural blood purifier. Amla juice therefore provides perfect skin [10, 11].

#### **CONCLUSION:**

Many questions concerning homegrown plants, such aloe vera and papaya, were directed at me. It can be a particular plant that manifests itself in different ways as the healing process proceeds to the pharmaceutical business depends on it. Aloe vera and papaya its preparation have been used as medicines for a very long time. Aloe vera and papaya gel are great for skin and hair. All hair problems will be resolved by doing this, including curly hair and hair loss. Aloe vera brightens and adds to the dark color of hair. This hair gel not only detangles hair but also encourages hair growth. Two great hair treatments are papaya gel and aloe vera. All hair problems—curly hair included—will be resolved by doing this. Aloe vera brightens hair and adds to its dark hue. This hair gel encourages hair growth in addition to detangling hair. Papaya and aloe Vera shower jel are effective natural skin care components. Results indicate that bettering skin quality. The nutritious jel with papaya and aloe vera can be applied to the entire face both at night and during the day. But avoid getting close to the eyes. Apply a small quantity of cream on the tip of your finger and use it to cover your entire face, neck, and chest. The best way to massage cream into skin is in smooth, circular motions. When applied to wet skin, the cream performs optimally

#### **REFERENCES:**

- 1. Mothana RA, Lindequist U. Antimicrobial activity of some medicinal plants of the island Soqotra. Journal of ethno pharmacology. 2005 Jan 4; 96(1-2):177-81.
- 2. Reynolds T, Dweck AC. Aloe vera leaf gel: a review update. Journal of ethnol pharmacology. 1999 Dec 15; 68(1-3):3-7.
- **3.** Grindlay D, Reynolds T. The Aloe vera phenomenon: a review of the properties and modern uses of the leaf parenchyma gel. Journal of ethno pharmacology. 1986 Jun 1:16(2-3):117-51.
- **4.** Hamman JH. Composition and applications of Aloe vera leaf gel. Molecules. 2008 Aug 8; 13(8):1599-616.
- **5.** Javed S. Aloe vera gel in food, health products, and cosmetics industry. Studies in Natural Products Chemistry. 2014 Jan 1; 41:261-85.
- 6. Capasso F, Borrelli F, Capasso R, Carlo GD, Izzo AA, Pinto L, Mascolo N, Castaldo S, Longo R. Aloe and its therapeutic use. Phyto therapy Research: An International Journal Devoted to Pharmacological and

- Toxicological Evaluation of Natural Product Derivatives. 1998; 12(S1):S124-7.
- 7. Ikram EH, Stanley R, Netzel M, Fanning K. Phytochemicals of papaya and its traditional health and culinary uses—A review. Journal of Food Composition and Analysis. 2015 Aug 1; 41:201-11.
- **8.** Dotto JM, Abihudi SA. Nutraceutical value of Carica papaya: A review. Scientific African. 2021 Sep 1; 13:e00933.
- 9. Adiaha MS, Adiaha MS. Effect of nutritional, medicinal and pharmacological properties of papaya (Carica papaya Linn.) to human development: A review. World Scientific News. 2017;2(67):238-49.
- **10.** Daagema AA, Orafa PN, Igbua FZ. Nutritional potentials and uses of pawpaw (Carica papaya): A review. Eur. J. Nutr. Food Saf. 2020; 12:52-66.
- 11. CS D, Samreen F, Prakash J. A review on composition, processed products and medicinal uses of papaya (Carica papaya L.). Int. J. Food Sci. Nutr. 2015; 3:99-117.