



Aloe Vera Medical Plant

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Article History: Received: 12.05.2023

Revised: 25.05.2023

Accepted: 05.06.2023

Abstract

For thousands of years, people have relied on the healing properties of the aloe vera plant. Aloe vera has several dental applications in addition to its well-known health advantages. Researchers' curiosity in this plant's potential is growing. Aloe vera has been shown to be effective as an antiseptic, anti-inflammatory, antiviral, and antifungal, according to scientific studies. Aloe vera is the most widely used therapeutic plant in the world, and it is also the oldest known medicinal herb. Aloe vera extract has been shown to improve skin conditions. In addition to relieving stinging and swelling, aloe vera's antibacterial characteristics make it useful for treating burns, rashes, wounds, and bug bites. It's been shown to prevent wrinkles from forming and to actively repair the damaged skin cells that lead to wrinkles. Detoxifying, antibacterial, and nerve tonic, aloe vera has several uses. It may help your body fight off viruses and strengthen your immune system. Including Aloe vera in one's diet has been shown to aid digestion. As a tonic for overall health. The vitamins in aloe vera are quite helpful. Vitamin B12 is among the many vitamins found in aloe vera gel, along with vitamins A, C, E, and folic acid. The inner gel of the aloe vera plant has been used and researched extensively due to its widespread traditional medicinal use. Proponents of the usage of this plant argue that it is more cost-effective and safer than synthetic pharmaceuticals. However, the precise methods and active components need to be discovered. The paper shows its physical, biological, and chemical suitability for a wide range of uses.

Keywords— Aloe vera, Aloe vera medical plant, Aloe vera properties

1. Introduction

Aloe vera, sometimes called the "plant of immortality," has been highly regarded for its curative and healing abilities for ages. The arid parts of the Arabian Peninsula are the natural habitat of this succulent perennial plant, which is a member of the genus Aloe. Its thick, fleshy leaves contain a gel-like material, giving it a unique look that has made it a popular decorative plant. Aloe vera has been used for centuries in both conventional medicine and alternative medicine due to its remarkable healing properties.

Aloe vera's curative properties have been known and used by many civilizations for thousands of years. It was portrayed in hieroglyphs and was known as the "plant of immortality" by ancient Egyptians. Its gel was applied to wounds, burns, and other skin issues. Ancient Chinese, Indian, and Greek sources show that aloe vera was highly valued for its medical properties.

Vitamins, minerals, amino acids, enzymes, and polysaccharides are just some of the bioactive substances that may be found in abundance in the gel that lines the inside of aloe vera leaves. The combination of these

factors produces a wide range of positive health effects. Aloe vera is a multipurpose plant with several medicinal uses due to its anti-inflammatory, antibacterial, antioxidant, and antiviral characteristics.

The use of aloe vera in dermatology is among its most well-known uses. Its gel may be used to treat a wide range of skin issues because of its high moisture content and calming impact. Aloe vera has been demonstrated to be effective in treating a wide variety of skin conditions, from mild irritations and sunburns to eczema, psoriasis, and acne. The gel's anti-aging properties stem in part from its ability to stimulate collagen formation and dampen inflammation. This makes it a common component in many different kinds of beauty and skincare products.

Aloe vera's advantages extend beyond its topical use on the skin to include its consumption. Juicing the inner leaf of the aloe vera plant and drinking the resulting juice has become popular due to claims that it helps with digestion, strengthens the immune system, and promotes general health. Its calming effects are beneficial for those suffering from stomach problems including acid reflux, IBS, or ulcers. Aloe vera's reputation as a natural health tonic is bolstered by its cleansing properties and its capacity to improve nutrient absorption.

In addition to its use in treating wounds, aloe vera may also be beneficial in a variety of other medical contexts, such as for heart health, diabetes control, and even cancer. Preliminary studies have shown encouraging results, increasing interest in further studying aloe vera's medicinal capabilities, and further research is being conducted on these uses.

Aloe vera is an impressive medicinal plant because of its broad range of uses and lengthy history of human use. The therapeutic chemicals included in its gel have made it highly sought after for its restorative and rejuvenating effects. Aloe vera's reputation as a botanical gem with enormous potential for enhancing human

health and well-being, whether applied topically or ingested orally, continues to fascinate the attention of scientists, herbalists, and healthcare professionals.

2. Literature Review

Mini Tiwari et. All (2018) The authors have developed an HPLC-based analytical approach for verifying and quantifying the Aloins A and B found in the extract and their derivatives. The suggested approach is straightforward and exhibits high sensitivity and accuracy; moreover, it may be expanded for the examination of bioactive chemicals contained in commercial formulations to investigate potential adulteration. For scientifically validating aloin content in commercial items, the suggested approach has benefits above those previously described. For its medicinal, sanitary, rejuvenating, and health-improving properties, aloe vera is utilized extensively as an active ingredient in the food, cosmetic, healthcare, cosmetics, and medical industries. Although Aloe vera's qualities and applications are varied. The FDA has given the green light for Aloe vera to be studied as a potential therapy for cancer and AIDS. Controlled research will be needed in the future to show the efficacy of Aloe vera under different conditions. In eastern medicine, aloe vera has long played a central role as an important component of the herbal medicine. Recent scientific studies on Aloe vera, however, have proven some of the plant's well-known virtues, much to the satisfaction of Westerners who had been skeptical about its efficacy as a home cure. Some of the advantages of Aloe vera, as shown by scientific study, are presented below. [1]

R. Rajeswari et. All (2012) Aloe vera is the most widely used therapeutic plant in the world, and it is also the oldest known medicinal herb. Aloe vera extract has been shown to improve skin conditions. In addition to relieving stinging and swelling, aloe vera's antibacterial characteristics make it useful for treating burns, rashes, wounds,

and bug bites. It's been shown to prevent wrinkles from forming and to actively repair the damaged skin cells that lead to wrinkles. Detoxifying, antibacterial, and nerve tonic, aloe vera has several uses. It may help your body fight off viruses and strengthen your immune system. Including Aloe vera in one's diet has been shown to aid digestion. As a tonic for overall health. There is a high demand for aloe vera all over the world because of its many applications in medicine, nutrition, and other fields. Australia, the United States, and the rest of Europe make up the most of the market for Aloe vera and its extracts. Aloe vera, among the many therapeutic plants, offers the greatest economic possibility due to its rapidly increasing demand across the world. India has some of the world's most favorable environmental conditions for growing Aloe vera and other high-value medicinal plants. [2]

Huay Chin Heng et. All (2018) A. vera has excellent capabilities in the areas of antidiabetic, anti-inflammatory, wound healing, and antibacterial, and there is encouraging early data to support its usage. There are no negative side effects at the doses employed, and the antidiabetic benefit persists through the earliest stages of the illness. While the anti-inflammatory impact of topical treatment may be delayed and minimal, oral administration has showed a considerable response. However, care must be taken since an inflammatory response has occurred when the starting dosage was too high. Even if it should only be used on small, uncomplicated wounds, the positive reaction to the gel has justified the use of A. vera in wound-healing and as an antibacterial agent. Its effects have been attributed to chemicals like acemannan and aloin, although it's possible that these molecules are interacting with one another to produce them. There has been an uptick in the creation of processed formulations of A. vera in order to extract a higher concentration of the active compounds; however, the effects of these processing processes should be researched to ensure

that the active compounds are not degraded and the intended effect is not lost. With the expanding use of A. vera, more research has to be done in this area. [3]

Malik Itrat, Zarnigar et. All (2013) Among the many Aloe species, Aloe vera stands out due to the widespread belief in its curative abilities. The Arabic term "alloe," from which "Aloe vera" is derived, means "shining bitter substance," while the Latin word "vera" means "true." The ancient Greeks considered Aloe vera to be a cure-all. The ancient Egyptians believed aloe to be the herb of eternal life. In India, people utilize the fresh gel, exudates, and whole leaves of Aloe as an anthelmintic, digestive aid, and emenagogue. It has become a popular home cure in China, Mexico, and the West Indies. The medicinal properties of aloe and its derivatives have been recognized for millennia. Now, several studies have shown that Aloe vera may help with a wide range of health issues. Despite the plant's purported advantages, most Aloe vera studies have been conducted on a modest scale. To more clearly describe the therapeutic efficacy of this well-liked herbal medicine, additional and better study data are required. [4]

G.Sujatha et. All (2014) The medicinal plant aloe vera originates in the genus Aloe of the Asphodelaceae family. 'Vera' in Aloe Vera Barbadensis means "true," and this species is by far the most common and helpful of all Aloe vera plants. The plant is native to Africa but may now be found in other parts of the continent as well as in North America, India, Egypt, and Sudan. Succulent plants like aloe vera are able to store water in their tissues for later use. Due to the presence of the fungus Arbuscular Mycorrhiza on its surface, this plant is very resistant to insect infestations and is classified as a "Arbuscular plant." This fungus gets deep into the plant and aids in mineral uptake, particularly potassium and other soil-based elements. Because of this, the plant has significant therapeutic potential. However, aloe vera becomes

unstable when it oxidizes when sliced, just as any other plant or fruit does. There is a growing body of research aimed at harnessing aloe vera's potent antibacterial potential for use in dental medicine. Aloe vera is gaining popularity as a dental treatment, and this natural therapy has already shown its limitless potential in our industry. [5]

Kebour Djamil et. All (2019) The abundant plant aloe vera (L) has not yet revealed all of its mysteries. It is now one among the first cultivated medicinal herbs worldwide. The antibacterial, hemostatic, and poisonous activity of Aloe vera (L.) gel and juice were investigated using in vitro assays as part of the research of biological activities. It has been shown via biological testing that Aloe vera (L) juice has antimicrobial effects against *Escherichia coli* and *Staphylococcus aureus*. However, the gel did not show any antibacterial activity against the tested organisms. Aloe vera (L) has an intriguing coagulation potential, both in its gel and juice. Finally, Aloe vera (L) gel is nontoxic whereas the juice is not. Juice from Aloe vera (L) has been demonstrated to inhibit the development of *Escherichia coli* and *Staphylococcus epidermidis* in a solid medium, according to a research of its antibacterial efficacy conducted on the four most common types of bacteria responsible for cutaneous illnesses. While Aloe vera (L) gel still lacks antibacterial properties. Aloe vera (L) gel and juice were shown to have blood-clotting properties in a hemostatic investigation. Aloe vera (L.) gel was evaluated for its toxicity against the luminous bacterium *Vibrio fischeri*, and the results revealed that it was nontoxic. The Aloe vera (L.) plant's fresh juice is poisonous, but not the gel. Our experimental findings show that Aloe vera (L) gel and juice contain high concentrations of water, carbohydrates, and minerals. These findings support using the gel as a nutritional aid. [6]

Suseela Lanka et. All (2017) The medical benefits of the succulent plant aloe vera are

well recognized, and the herb is employed in Ayurvedic, Homoeopathic, and Allopathic practices. It has been used for centuries by individuals of a wide variety of cultural backgrounds, and its traditional use include topical use to decrease sweating, oral dose for diabetes, and the elimination of a wide variety of gastrointestinal problems. It may also be used on burns, cuts, genital herpes, and seborrheic dermatitis for relief from such conditions. A wide variety of bioactive compounds, including emollient, purgative, anti-inflammatory, antioxidant, antimicrobial, anti-helminthic, antifungal, aphrodisiac, antiseptic, and cosmetic values, are concentrated in the leaves of this wonderful medicinal plant. Because of its restorative and nourishing qualities, this plant is often used in the cosmetics industry. Aloe vera, sometimes called a "miracle plant," has been shown to be effective against a broad variety of medical conditions. Despite widespread anecdotal evidence attesting to the plant's therapeutic potential, rigorous scientific research are necessary to establish the plant's true worth. [7]

K. P. Sampath Kumar et. All (2010) For thousands of years, people have relied on aloe vera's healing powers, particularly when applied topically to the skin. The earliest written evidence of human consumption of this plant comes from an Egyptian papyrus written about 3500 BC. The Bible and the works of the Greek philosopher Aristotle both make mention of the healing properties of aloe vera. It was used by the ancient Europeans, Asians, and Oceanians. In the early nineteenth century, Aloe vera was used in the United States as a laxative. Additionally, reports of effective treatment of x-ray and radium burns initiated current therapeutic usage in the 1930s. The Arabic name for aloe vera, *alloe*, translates to "shining bitter substance" due to the plant's characteristically bitter juice, while the Latin term, *vera*, translates to "true." [8]

Dr. Deborshi Ganguly et. All (2023) Because of its many use in the medical and

beauty sectors, aloe vera is a well recognized botanical. It's a dwarf perennial with meaty leaves that can make do with a limited water supply thanks to its cold hardiness. As a cash crop, it is grown all across the country of India. In ayurvedic literature, aloe vera is referred to as Ghritkumari or kumari and is used to treat a wide range of conditions, including fever, diarrhea, indigestion, worm infestation, splenomegaly, liver disease, skin disease, and burns, among others. The Brihadtrayees make no mention of Aloe vera, while the nighantus go into great detail on its medicinal benefits. [9]

Dr. Shail Bala Sanghi et. All (2015) In recent years, there has been a lot of interest in the traditional and ethno -botanical applications of natural substances, particularly those derived from plants, because of the extensive research done on them and the widespread consensus that they are safe for human use. Indian folk medicine makes extensive use of herbal remedies to treat a wide range of conditions. Although traditionally used for treating wounds, aloe vera has recently gained attention for its potential in the cosmetics and healthcare industries. More study is needed to stimulate the use of therapeutic plants like Aloe vera, which has shown promise as a possible medication thanks to its own unique qualities. [10]

Josias H. Hamman et. All (2008) The polysaccharides found in the gel of Aloe vera leaves are responsible for many of the plant's purported health advantages. Wound healing, antifungal, hypoglycemic, anti-inflammatory, anti-cancer, immunomodulatory, and gastroprotective are only few examples of these biological functions. This review will briefly touch on the previously established biological activities of A. vera, but the primary focus will be on the more recent effects and uses of the leaf gel. The benefits of A. vera include increased intestine absorption and bioavailability of co-administered substances and increased skin permeation, and the use of whole-leaf or inner fillet gel

liquid formulations may have these effects as well. It will also detail the significant medicinal uses, such as the excipient usage of dried A. vera gel powder in sustained release pharmaceutical dosage forms. [11]

Marta Sánchez et. All (2020) Traditional medicine has long relied on aloe vera for its anti-inflammatory, antibacterial, and wound-healing capabilities to treat anything from burns and wounds to eczema and stomach issues. Studies on this medicinal plant have sought to verify its historical use and investigate its mode of action by isolating the active components. Acemannan, aloemodin, aloin, aloesin, and emodin have all been the subject of much research. Similar efforts have been made to discover novel applications for Aloe vera and its active components. This analysis surveys the English-language pharmaceutical literature published during the last six years (2014-2019) and gives an overview of ongoing research (in vitro, in vivo, and clinical trials). In particular, recent pharmacological data analysis has shown that the vast majority of studies make reference to anti-cancer action, skin and digestive tract protection, and antibacterial capabilities. These days, in vitro and in vivo experiments are the norm. It would be fascinating to explore the clinical impact of important metabolites in various human illnesses and pathologies, since clinical studies have only been done with Aloe vera and not with isolated chemicals. In light of these encouraging findings, further clinical trials are needed to investigate the potential benefits of Aloe vera and its major constituents for a variety of medical conditions, including bone protection, cancer, and diabetes. [12]

Pankaj K. Sahu et. All (2013) Its luscious leaves conceal healing elements that may improve health and well-being in a variety of ways. The plant is a blessing to humanity because it can be used to treat a wide range of skin problems, from minor cuts and scrapes to insect stings, bruises, poison ivy, and eczema. It can also help maintain a

healthy digestive system, good blood and lymphatic circulation, and proper kidney, liver, and gall bladder function. The "wonder plant" aloe vera has many uses beyond just making you look and feel better. It may assist with anything from easing symptoms of serious diseases like cancer and diabetes to soothing minor burns and abrasions. More study is needed to determine how best to put this plant to use for people. We still need to familiarize ourselves with aloe vera and express our gratitude to nature for this inexhaustible gift by learning about its many cosmetic, burn, and therapeutic uses. [13]

3. Medicinal Properties

In addition to its traditional usage for digestive-related conditions, aloes have also long been put to use in the treatment of wounds, burns, and skin issues. The name "Aloes" refers to the dried liquid that comes out of the transversely cut bases of the plant's leaves. It does not directly heal, but rather feeds the body's own systems to help them perform at peak efficiency and maintain health, making it the greatest herbal solution for supporting the body's health and healing processes. Its pharmacological effects include enhancing immunity and cleansing the body. Adjuvant treatment with antimicrobials, nonsteroidal anti-inflammatory drugs (NSAIDs), and chemotherapy is advised to reduce or eradicate drug-induced gastritis and other side effects. Helpful for a wide range of conditions, including but not limited to: type 2 diabetes, arthritis, eye illness, tumor, enlarged spleen, liver problems, vomiting, bronchitis, asthma, jaundice, and ulcers. Constipation is alleviated, gastric acidity is preserved, and inflammatory bowel disease, dyspepsia without ulcers, stomach ulcers, and duodenal ulcers are all helped by this. A nutritional supplement for patients before and after surgery, women beyond menopause, and osteoporosis.

4. Health Benefits

Helps digestion: The digestive tract may be naturally cleansed by consuming Aloe vera juice. If you're constipated, this will get your bowels moving and make removal easier. And it helps stop or at least lessen the severity of diarrhea.

Increases energy levels: There are several sources of weariness and fatigue in our diets. Aloe vera juice promotes a state of well-being, boosts energy, and aids in the maintenance of a healthy weight when consumed on a daily basis.

Builds immunity: Since the polysaccharides in Aloe vera juice activate macrophages, the white blood cells that fight infections, it is particularly beneficial for persons with chronic immunological illnesses like polysaccharides or fibromyalgia.

Detoxifies: Juice from aloe vera plants is a fantastic all-natural detoxifier. All of us may benefit from an occasional body cleansing, what with the stress we endure, the pollution we are exposed to, and the unhealthy meals we consume on a regular basis. The daily stresses and strains our bodies endure may be mitigated with the aid of a marvelously rich mix of vitamins, minerals, and trace elements found in Aloe vera juice.

Reduces inflammation: It aids in cell renewal and makes joints more pliable. Joint discomfort and inflammation are alleviated as a result of the increased muscular strength.

5. Active components present in Aloe vera with properties

Name of the Active component	Active components present in Aloe vera with properties
Vitamins	Vitamin A (beta-carotene), C and E, - antioxidants. It also contains vitamin B1, B2, B6 & B12, folic acid, and choline.
Enzymes	Aliiase, alkaline phosphatase, amylase, oxidase, bradykinase,

	carboxypeptidase, catalase, cellulase, lipase, cylooxygenase, and peroxidase.
Minerals	Calcium, chromium, copper, selenium, magnesium, manganese, potassium, sodium and zinc.
Sugars	Monosaccharides (glucose and fructose) and polysaccharides (glucomannans/polymannose).
Organic acids	Sorbate, salicylic acid, uric acid
Anthraquinones	Aloin, barbaloin, isobarbaloin, anthranol, aloetic acid, aloe-emodin, ester of cinnamic acid, resistanol, chrysophanic acid and emodin.
Fatty acids and Steroids	Cholesterol, campesterol, β -sisosterol and lupeol. Fattyacids like Arachidonic acid, γ -linolenic acid.
Non-essential aminoacids	Histidine, arginine, aspartic acid, glutamic acid, proline, glycine, tyrosine, alanine and hydroxyl proline.
Hormones	Auxins and gibberellins *that help in wound healing and have anti-inflammatory action.

Table: 1 Active components present in Aloe vera with properties

6. Medicinal Uses

There is few and sometimes inconsistent scientific data supporting Aloe vera's beauty and medicinal claims. Despite this, Aloe vera is widely advertised on the Internet by the cosmetic and alternative medicine sectors as having soothing, hydrating, and healing characteristics.

Lotion, yogurt, drinks, and even certain sweets have been formulated using aloe vera gel as an ingredient. Consuming aloe vera gel has been shown to improve digestion and alleviate symptoms of IBS and heartburn. Aloe vera sap and other Aloe vera derivatives are often used in a wide variety of beauty and personal care items, including but not limited to: cosmetics, tissues, moisturizers, soaps, sunscreens, incense, razors, and shampoos. Aloe vera extracts have many more applications, such as artificially fertilizing sheep, preserving fresh food, and conserving water on small farms. Although the exact date of aloe vera's discovery as a medicinal treatment is unknown, it has a long history of use in herbal medicine. As long as the aloin has been eliminated during processing, aloe vera is safe to use. Excessive use of Aloe vera gel containing aloin has been linked to a number of unwanted consequences. On the other hand, this species is extensively used in the herbal medical practices of many different countries, including China, Japan, Russia, South Africa, the United States, Jamaica, and India. It has been said that aloe vera gel may help heal wounds. However, there is little and conflicting data on the efficacy of Aloe vera sap in promoting wound healing. For instance, some research suggests that Aloe vera boosts healing rates, while other research suggests that wounds treated with Aloe vera gel recover far more slowly than those treated with standard medical treatments. Internal consumption of Aloe vera has been associated with reduced blood glucose levels in diabetics, with decreased blood lipids in hyper lipidaemic individuals, but also with acute hepatitis (liver illness), in addition to its topical application in wound or burn healing. Initial research suggests that patients who take Aloe vera gel orally may have less pain and inflammation from their condition. Aloe vera gel used topically for conditions including genital herpes and psoriasis shows promise. Some benign skin cysts may respond to therapy with aloe vera extracts due to the plant's antibacterial and antifungal properties. Tinea-causing fungus

can be inhibited by aloe vera extracts, however control below the epidermis has not yet been shown. Insect bites, rashes, sores, herpes, urticaria, fungal infection, vaginal infection, conjunctivitis, and allergic responses are all helped by using an aloe vera plant. When applied to dry skin, aloe vera gel has a radiant look, reduces acne and sunburn, and acts as a radiation shield.

6.1 Effects on skin exposure to UV and gamma radiation:

It has been suggested that using aloe vera gel may prevent skin cancer caused by radiation. Although its precise function is unclear, topical use of Aloe vera gel leads to the production of the antioxidant protein metallothionein in the skin, which neutralizes free radicals and prevents the inhibition of the antioxidant enzymes superoxide dismutase and glutathione peroxidase. Interleukin-10 (IL-10) and other immunosuppressive cytokines are produced and released by skin keratinocytes, and studies show that administering Aloe inhibits UV-induced suppression of delayed type hypersensitivity.

6.2 Other Medicinal Uses of Aloe Vera

When used regularly, aloe vera may help keep your body's key organs healthy and fight off illness. Pepsin, which is released by aloe vera, promotes digestion and calms stomach aches, ulcers, and colic. It's great for soothing heartburn, too. This has been passed down via the European folk medicine traditions and proven in modern clinical research in Japan. The healing properties of aloe vera include boosting immunity and warding off illness. The capacity to generate new white blood cells has been linked to its success in treating HIV and cancer, particularly leukemia. Therefore, it may reduce the negative effects of radiation and chemotherapy. It improves blood flow, which in turn raises oxygen levels among the body's cells. Therefore, it may have a significant impact in helping those with thalassemia. Asthma sufferers might also benefit from aloe vera. It's beneficial for warding off arthritis since it helps keep

muscles and joints in good shape. The finest colon cleanser is aloe vera since it detoxifies the body. Because it helps keep you regular, it also cleans your blood well. It aids with conditions involving the kidneys and liver, such as jaundice. Moreover, aloe vera regulates blood sugar levels, making it useful for diabetics. Cholesterol and triglyceride levels are lowered, making the heart stronger and protecting it from disease. Eye and ear infections and inflammation may be treated with aloe vera. Last but not least, it's a source of vitality and healing. In addition, it has been suggested to help with depression.

6.3 Effects on the Immune System

The release of histamine and leukotriene from mast cells is blocked by alprogen because calcium influx is reduced. Murine sarcoma cells were implanted into mice, and the researchers found that acemannan triggered an immune attack, leading to the necrosis and regression of the cancerous cells, by stimulating the synthesis and release of interleukin-1 (IL-1) and tumor necrosis factor from macrophages in the mice. Activated human neutrophils produce reactive oxygen free radicals, which may be blocked by a number of low-molecular-weight chemicals.

6.4 Antitumor Activity

Glycoproteins in Aloe vera gel have been shown to promote the growth of normal human skin cells and inhibit the growth of tumor and ulcer cells. However, there is a lack of clear clinical investigations on the effects of Aloe vera gel on human health. Recent research has revealed that a polysaccharide fraction may prevent the production of possibly cancer-initiating benzopyrene-DNA adducts by blocking the binding of benzopyrene to primary rat hepatocytes. It has also been reported that aloe gel may help in cancer chemoprevention by inducing glutathione S-transferase and blocking the tumor-promoting effects of phorbol myristic acetate.

7. Conclusion

Aloe vera, sometimes called a "miracle plant," has been shown to be effective against a broad variety of medical conditions. Due to its significant anti-inflammatory, antibacterial, and wound-healing qualities, aloe vera has shown promising results in treating numerous skin problems including burns, wounds, and dermatitis. Because of its gel's hydrating and renewing benefits on the skin, it is very often utilized in cosmetic goods. In addition, studies have shown that Aloe vera may help with gastrointestinal issues including GERD, IBS, and ulcerative colitis. Its anti-inflammatory and calming effects may reduce stomach pain and speed recovery. Research into the immunomodulatory properties of Aloe vera has shown that it may help boost the immune system and perhaps be useful in the treatment of certain autoimmune disorders. Further, early studies have shown promise for the use of Aloe vera as a treatment for diabetes, inflammation, and even cancer. These possible advantages must be studied in more depth in order to be completely understood and validated. Aloe vera's widespread availability and simplicity of growing make it a valuable resource for people all over the world. While Aloe vera is typically safe for topical and ingested usage, it is crucial to remember that individual sensitivity and allergies may differ. If you have any preexisting medical issues or are on any drugs, it is best to check with your doctor before using Aloe vera for medicinal purposes. Because of its wide range of therapeutic applications, ease of access, and long tradition of usage, aloe vera is an interesting and useful medicinal plant. The results of ongoing studies have the potential to shed light on its many applications and advantages, leading to a deeper comprehension and better use of this extraordinary plant material.

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