A review on indigenous herbs as an imperative gift from nature for corns and calluses wound management

Anil Kumar V, Prasanth D, Murali Krishna B, Padmasri B and Nagaiah K

Abstract
Nature is main source of herbal medicine, which is based on the knowledge gained over generations. The scientific investigation of biological activities and phytochemical features of herbal medicines is fundamentals for the treatment of human ailments. The herbal plants have been used in medicine since ancient time and are well known for their abilities to promote corns and calluses wound healing. Plants or combination derived from herbal plants are needed to investigate identify and formulate for treatment and management of corns wound healing and to treat other skin diseases. In this review survey includes different research, review verified literature addressing the effectiveness of natural remedies in medicinal plants of world flora used for wound healing purpose. Further, the crucial information regarding herbal plants, which are effectively used as corns and calluses wound healing management in traditional medicine are gathered.

Keywords: Herbal medicines, wound healing, phytochemical, corns and calluses

Introduction
Herbal medicines have its origins in ancient culture. Four billion people or about 80 percentages of the world's population utilizes herbal medication today as a component of medicinal services. Various societies use herbs located in their geographical areas for curing basic illnesses enhance general health and wellbeing. Some of the herbal cures proved have end up being unquestionably more helpful than allopathic medications. Traditional strategies for relieving ailments through natural herbs and therapeutic or medicinal plants have become trendy. Many patients who are not happy with prolonged or delayed medication medicines are pulling for alternative healing treatment. As herbal medicines are turning into a pattern for the most recent medicinal services everywhere throughout the world, it is smarter to understand the fundamentals, which have been lost in ancient history. Indian natural drugs use different herbs and roots, once in a while succulent, various mushrooms, seeds and desert plants. A portion of these herbs have been used to cosmetic issues like skin inflammation, skin ailments, and making perfumes also. Indian spices used in the kitchen until today are valuable and generations of Indians depend upon them for their remedial properties [1-4]. This review plans to introduce a portion of the published information to feature the size of the strength related with some basic foot health skin infections like corns, calluses and furthermore to propose approaches to measure this burden skin diseases. Foot health is important part in the promotion and maintenance of general health. Healthy feet are essential for safe walking, functional ability and the ability to perform daily activities. Despite the recognition of foot health as being important in general well-being, several different foot health problems can be identified especially in older people. Older People have multiple foot health problems. Almost one third older People have at least one foot health problem. The foot health problems increases with ageing and are associated with age, female gender obesity Osteoarthritis and Diabetes. The Consequences of foot health problems can range from pain and disability to problems that threaten loss of limb and life. Foot health problems are one reason for a decline in independent Physical functioning. Skin problems consist of dry skin, corns and calluses, Maceration between toes. Dry skin among older people is prevalent. Aging changes the functions of the skin, often leading to dry and Pale skin therefore, care with emollients is essential in maintaining flexible and intact skin for the feet. Intact and healthy skin provides the best shelter from external threats to the human body. This review plans to introduce a portion of the published information to feature the size of the weight related with some basic skin infections and furthermore to propose approaches to measure this burden of skin disease. Corns and calluses are prevalent in areas of pressure, such as the ball of the foot, the heel or the toes. These are commonly consequences of excessive pressure and friction which may be caused, for example, by structural deformities or suboptimal footwear.
In older people, the high number of corns and calluses is supposed to be consequence of a loss of compliance in the foot's sole. Calluses and corns inter correlated with female gender hallux valgus, toe deformity, increased ankle flexibility and the time spent on the feet. Calluses regions in the sole of the foot increase the pressure on the skin during standing and walking, and when the pressure is prolonged it may cause foot pain. Corns structure when the pressure point against the skin follows a curved or semi circular way during the scouring motion, the focal point of which is at the point of pressure, bit by bit extending, if there is constant stimulation of the tissues producing the corns, much after the corn is carefully surgically removed, the skin may keep on developing like corn. Corns and calluses results from hyperkeratosis, which is caused by an increase in keratinocyte activity associated with simulation of the epidermis from chronic pressure or friction on the skin. Example includes irritation from poorly fitting shoes or abnormal pressure caused by a deformity of the foot [9]. Hyperkeratotic lesions (Calluses & corns) are highly prevalent in community dwelling older people, affecting 33 to 68% of those aged over 65 years. Plantar lesions are some times painful and are associated with reduced walking speed, impaired balance and difficulty in ascending and descending stairs, resulting in disability and reduced independence in older People. An indication of the prevalence and impact of hyperkeratotic lesions in the community on the podiatric workforce is that lesion debridement accounts for up to 75% of Podiatrists workload and that 84% of people seeking treatment for hyperkeratotic lesions will visit a Podiatrist. Hyperkeratosis is the result of abnormal mechanical stresses on the skin which stimulate over activity of the keratinisation process. This causes accelerated proliferation of epidermal cells and a decreased rate of desquamation, resulting in hypertrophy of the stratum corneum. The increased thickness results in a greater volume of skin through which mechanical stresses can be distributed. This natural process of symptoms free hyperkeratosis (physical hypeekeratosis) helps to protect the skin and soft tissue layer from mechanically injury. Hyperkeratosis, however become Pathological when the keratinised material builds up sufficiently to cause tissue damage and pain, possibly through the release of inflammatory mediators or due to the pressure of the central keratin plug on underlying nerves. Callosities can be painful, and the symptoms may be so intense as to seriously affect a person's gait, choice of footwear and activities. A callosity occurs when the process of keratinisation, which maintains the stratum corneum of the skin as a horny protective cover, becomes overactive due to shearing or compressive forces. This is a normal protective response as seen in the hands of manual laborers and the feet of those who walk barefoot and a callosity becomes pathological only when it is so large as to cause symptoms [6-16].

**Table 1: Classification of Callosity**

<table>
<thead>
<tr>
<th>Callosity</th>
<th>Corns</th>
<th>Digital (Hard) corn</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Interdigital (soft) corn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Plantar corn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Localized callus</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Diffuse callus</td>
<td></td>
</tr>
</tbody>
</table>

**Corn**: A corn represents a circumscribed, sharply demarcated area of traumatic hyperkeratosis. It has a visible translucent central core which presses deeply into the dermis, causing pain and sometimes inflammation. The term heloma (Greek helus, a stone wedge) is often used by Podiatrists to denote a corn. The hard corn (heloma durum) represents the classic corn a dry horny mass most commonly found on the interphalangeal joints of the lesser toes. The soft corn (heloma molle) is an extremely painful lesion that occurs only inter digitally and is probably best termed anointer digital corn. It is essentially a corn that has absorbed a considerable amount of moisture from sweat, leading to characteristics maceration and sometimes secondary fungal or bacterial infection. It is most common in the fourth inter digital space. Sometimes two opposing lesions can be found and are termed " kissing lesions ".

**Calluses**: A calluses is a broad based, diffuse area of hyperkeratosis of relatively even thickness, most commonly found under the metatarsal heads. A calluses is less circumscribed than a corn, is usually larger, doesn't have a central core, and may or may not be painful. The terms tyloma or claves are sometimes used to denote a calluses while there is some agreement about labeling large diffuse areas of traumatic plantar hyperkeratosis simply as diffuse plantar callus, there us much confusion in the naming of more discrete localized areas of traumatic hyperkeratosis that occurs on the sole of the foot [17].

![Fig 1: Image of different type of corns](image1)

![Fig 2: Images of Calluses](image2)
Table 2: Clavus formation named for specific etiology or Location\textsuperscript{18-23}.

<table>
<thead>
<tr>
<th>S. No</th>
<th>Vernacular term</th>
<th>Location</th>
<th>Association</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Weight lifters callus</td>
<td>Callosities over the Planar metacarpal phalanges joints</td>
<td>Caused by the friction of weight lifting appparatus. (This also may be seen in athletes who participate in crew)</td>
</tr>
<tr>
<td>2.</td>
<td>Prayer callus</td>
<td>Callosity on the forehead</td>
<td>From kneeling prayer with the hands on the forehead</td>
</tr>
<tr>
<td>3.</td>
<td>Jeweler's callus, cherry Pitter's thumb, Cameo engraver's</td>
<td>Thumb</td>
<td>Digital changes, including callosities related to repetitive use of fine jewelers instruments</td>
</tr>
<tr>
<td>4.</td>
<td>Screwdriver operator's clavus</td>
<td>Planar surface of the hand</td>
<td>Occurs at the site of contact with a screwdriver handle</td>
</tr>
<tr>
<td>5.</td>
<td>Sucking calluses</td>
<td>Lip, hand or foot of a new born</td>
<td>Callus formation at the site of an area of suction on the lip, hand, or foot of a new born</td>
</tr>
<tr>
<td>6.</td>
<td>Vamp disease</td>
<td>Feet</td>
<td>Clavus formation due to wearing tight high heeled shoes</td>
</tr>
<tr>
<td>7.</td>
<td>Spine disease</td>
<td>Hyperkeratosis over the spinal column</td>
<td>Caused by dancing with spinning on one's back</td>
</tr>
<tr>
<td>8.</td>
<td>Muay Thai kickboxers</td>
<td>Feet</td>
<td>Callosities on the forefoot, on the plantar first metatarsal and on the big toe</td>
</tr>
</tbody>
</table>

Pathophysiology

Corns are the result of mechanical trauma to the skin culminating in hyperplasia of the epidermis. Most commonly, friction and pressure between the bones of the foot and ill-fitting footwear cause a normal physiological response-proliferation of the stratum corneum. One of the primary roles of the stratum corneum is to provide a barrier to mechanical injury. Any insult compromising this barrier causes homeostasis changes and the release of cytokines into the epidermis, stimulating an increase in synthesis of the stratum corneum. When the insult is chronic and the mechanical cracks are not renovated, hyperplasia and inflammation are familiar with corns, extraneous mechanical forces are focused on a sectarian area of the skin, finally dominant to impact of the stratum corneum and the development of a hard keratin bung that presses painfully into the Papillary dermis, which is known as a radix or nucleus. The shapes of the hands and feet are important in corn development. Especially, the bony prominences of the metacarpophalangeal and metatarosphalangeal joints often are shaped in such away as to activate overlying skin friction. As corn development emanate friction against the footwear is acceptable to perpetuate hyperkeratosis. Constant motion cans outgrowth callosities, as would be seen in musicians. Toe deformity, including contractures and claw, hammer, and mallet-shaped toe, may contribute to pathogenesis. Defect of the feet from underlying conditions such as rheumatoid arthritis can contribute to clavus formation. Bunionettes i.e., callosities up the oblique fifth metatarsal head, may be combining with neuritic manifestation due to confining of the underlying lateral digital nerves. Furthermore, more toe, in which the second toe is longer than the first toe, occurs in twenty five percentage of the population, this may one of the most important pathogenic factors in a callus of the common second metatarsal head, i.e., an intractable plantar keratosis. Longterm or repetitive motion may also include clavus formation, as is seen in computer users and text messengers i.e “Mousing callus “.callosities can also form against excessive leg crossing\textsuperscript{26-31}.

Skin Structure and its functions: The skin provides a life-protective barrier between the body and the external environment against physical damage, fluid loss, pathogens and has immuneneuroendocrine functions that contribute to the maintenance of body homeostasis. Its structure is composed of two layers i.e epidermis, dermis. The epidermis contains keratinocytes, melanocytes, dendritic cell, langerhans cells and other immune cells, sensory axons and the epidermal-dermal basement membrane. The dermis has the skin mast cells, appendages, resident, fibroblasts, antigen presenting dermal cells and circulating immune cell. Additionally, the dermis includes the extracellular matrix complex that provides support to intercellular connection, and regulates cytokine, growth factors and cellular movement functions. Skin circulation is composed of parallel arterial vein thermo regulatory shunt circulation. Controlled by tonic adrenergic sympathetic vasoconstrictor and vasodilator nerves that give to a subepidermal capillary network that provide nutrients and oxygen to the epidermis and remove carbon dioxide and waste products. Skin innervation consists of a dense network of sensory and autonomic fibers that form tight junctions with keratinocytes and transmit sensations of pain, pressure, itch, temperature, vibration. The lymphatic vessels of the skin consists of lymph capillaries that run horizontally under the epidermis, followed by precollectors vessels located deeper in the dermis and lymph collecting vessels in the subcutaneous fat layer. Lymph vessels are connected to the skin local draining lymph nodes, and lymph vessels that exist these lymph nodes converge to the regional sentry lymph nodes before reaching the thoracic duct\textsuperscript{32-39}.

Healing Process of skin: After injury, skin integrity must be promptly restored in order to maintain its functions. In this process, peripheral blood mononuclear cells, extra cellular matrix, resident skin cell, chemokines, cytokines, growth factors and regulatory molecules participate in the wound healing process. The intricate skin repair process has been organized in 3 sequential and overlapping steps.

1. The Inflammatory Phase
2. The Proliferative Phase
3. The Remodelling Phase

In the first phase of inflammatory phase includes cutaneous neurogenic inflammation and hemostosis. These early events start in the first seconds after injury and last approximately 1 hr. Followed by the fast recruitment of neutrophils to the injured tissue during the first 24hrs and its posterior decline during the subsequent week. The progressive infiltration of inflammatory monocytes-macrophages to the wound starts the second day after injury and continues to increase, reaching its maximum during the second phase of proliferative phase, starting its decline during the following two weeks, becoming the dominant mononuclear cell in the tissue repair process. Circulating lymphocytes migrate to the skin early after injury reaching a plateau by day four and their presence continue for two more weeks before declining. The third phase of remodeling phase is last phase starts in the second week after injury and includes remodeling the tissue previously formed in the second phase and the organization of a scar in order to restore the skin integrity. This last stage could last for months\textsuperscript{40}.
1. **Collagen estimation:** Collagen estimation was performed in terms of leucine content determination. For the determination of leucine content, the skin pieces from the wound area were procured and evaluated for leucine content. The procedure reported in literature was adopted for the determination of leucine content (Mandl et al.1994, Moore and stein 1948) [41].

2. **Histopathological evaluation of tissues:** In order to perform histopathological evaluation, the healed tissues from the animal of each group were taken. Healed tissues were fixed in10 percentage formalin, dehydrated by alcohol, and embedded in paraffin blocks. Tissue sections were deparaffinized using xylene. The staining was carried out using hematoxylineosin and tissue sections were analyzed under light microscopy [42].

3. **Medication:** Generally medication of corns and calluses paring of the lesions, which quickly reduces pain. However, if an abnormal pressure source remains, the corns most part returns. In the event that no other treatment is effective, medical procedure or surgery may be performed. Most corns and calluses bit by bit disappear when the friction or pressure stops, despite the fact that your primary care physician may shave the top of a callus to lessen the thickness. Appropriately positioned moleskin pads can help relieve pressure on corn. These pads are containing salicylic acid but these are not reasonable for everybody. At the same time use any antibiotics clair the infected corns but pus may have to be depleted through a little incision.

**Pharmacological activities of plants supporting wound healing**

1. Antinflammatory activity
2. Antioxidants activity
3. Antimicrobial activity
4. Analgesic activity

**Table 3:** Different Phyto constituents and their importance in Wound healing

<table>
<thead>
<tr>
<th>S. No</th>
<th>Phyto constituents</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Flavanoids</td>
<td>Radical scavenging effects, Astringent and antimicrobial, improve vascularity</td>
</tr>
<tr>
<td>2.</td>
<td>Tannins</td>
<td>Promote or enhance wound healing due to their astringent and antimicrobial property, acts as free radical</td>
</tr>
<tr>
<td>3.</td>
<td>Poly phenols</td>
<td>Free radical Scavenging and antioxidant activity</td>
</tr>
<tr>
<td>4.</td>
<td>Tri-terpenoids</td>
<td>Astringent and antimicrobial activity</td>
</tr>
<tr>
<td>5.</td>
<td>Saponins</td>
<td>Antioxidants</td>
</tr>
</tbody>
</table>

Parameters used to assess wound healing activity: For the investment of Wound healing activity lot of *in-vitro* and *in-vivo* models have been used. *In-vitro* models like incision models, excision models, dead space models and burn models can be performed whereas *In-vitro* models like wound healing migration assay, keratinocytes assay, cell proliferation assay or fibroblasts assay can be done. Overall the estimation of tensile strength of skin, hydroxyproline substance, estimation of wound area, period of epithelialization, percentage of contraction are most ideal parameters used for assessment of wound healing activity of any compound [42].

**Table 4:** Taxonomy of different herbs

<table>
<thead>
<tr>
<th>Taxonomy</th>
<th>Clove</th>
<th>Garlic</th>
<th>Aloe vera</th>
<th>Barleria priionitis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingdom</td>
<td>Plantae</td>
<td>Plantae</td>
<td>Plantae</td>
<td>Plantae</td>
</tr>
<tr>
<td>Subkingdom</td>
<td>Tracheobionta</td>
<td>Tracheobionta</td>
<td>Tracheobionta</td>
<td>Tracheobionta</td>
</tr>
<tr>
<td>Super division</td>
<td>Angiosperms</td>
<td>Spermatophyta</td>
<td>Spermatophyta</td>
<td>Spermatophyta</td>
</tr>
<tr>
<td>Division</td>
<td>Eudicots</td>
<td>Magnoliophyta</td>
<td>Magnoliophyta</td>
<td>Magnoliophyta</td>
</tr>
<tr>
<td>Sub class</td>
<td>Rosids</td>
<td>Liliidae</td>
<td>Liliidae</td>
<td>Asteridae</td>
</tr>
<tr>
<td>Order</td>
<td>Myrtales</td>
<td>Liliales</td>
<td>Liliales</td>
<td>Scrophulariaales</td>
</tr>
<tr>
<td>Family</td>
<td>Myrtaceae</td>
<td>Liliaceae</td>
<td>Aloeaceae</td>
<td>Acanthisaceae</td>
</tr>
<tr>
<td>Genus</td>
<td>Syzygium</td>
<td>Allium, L</td>
<td>Aloe.L</td>
<td>Barleria</td>
</tr>
<tr>
<td>Species</td>
<td>S.aromaticum</td>
<td>Allium, nigrum</td>
<td>Aloe vera (L)</td>
<td>Barleria priionitis</td>
</tr>
</tbody>
</table>

**Table 5:** Taxonomy of different herbs

<table>
<thead>
<tr>
<th>Taxonomy</th>
<th>Lantana camara</th>
<th>Moringa olifera</th>
<th>Tecoma capensis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingdom</td>
<td>Plantae</td>
<td>Plantae</td>
<td>Plantae</td>
</tr>
<tr>
<td>Subkingdom</td>
<td>Tracheobionta</td>
<td>Tracheobionta</td>
<td>Tracheobionta</td>
</tr>
<tr>
<td>Super division</td>
<td>Spermatophyta</td>
<td>Spermatophyta</td>
<td>Embryophyta</td>
</tr>
<tr>
<td>Division</td>
<td>Magnoliophyta</td>
<td>Magnoliophyta</td>
<td>Tracheophyta</td>
</tr>
<tr>
<td>Subclass</td>
<td>Asteridae</td>
<td>Dilleniidae</td>
<td>Spermatophyta</td>
</tr>
<tr>
<td>Order</td>
<td>Lamiales</td>
<td>Capparales</td>
<td>Lamiales</td>
</tr>
<tr>
<td>Family</td>
<td>Verbenaceae</td>
<td>Moringaceae</td>
<td>Bignoniaceae</td>
</tr>
<tr>
<td>Genus</td>
<td>Lanta</td>
<td>Moringa</td>
<td>Tecoma</td>
</tr>
<tr>
<td>Species</td>
<td>Lantana camara</td>
<td>Olifera</td>
<td>Tecoma capensis</td>
</tr>
</tbody>
</table>

**Literature review**

**Generally used medicinal herbs as corns wound healers**

People from both developed and developing nations maximum depend upon herbal therapeutic for initial healthcare. The use of herbal medicine is determining by various factors like affordability, availability and its firm embedment in the beliefs of people. In this portion, we present few herbal plants that are broadly used and have significant medicinal benefits including corns and calluses wound healing property [43].
Medicinal plants for corns and calluses wound treatment and management Clove

Botanical Description: Biological source of clove consists of the dried flower buds of *Eugenia caryophyllus* family Myrtaceae Synonyms of clove buds, caryophylli, Lavang. Clove tree is every green and 15 to 20 meters in height. Clove plant requires moist, warm and equable climate with well distribute rainfall. In the beginning seeds cannot bear full sunlight so young means 2 to 3 years. Cloves collected from trees of 6 years old till they are 70 years old. Clove buds are at first white, then green and finally become Crimson-red in color. Length varies from 12 to 17 mm. They are Actinomorphic, bisexual, epigynous. The flower bud has a spherical head and a sub-cylindrical hypampom taping at the lower end. Dark brown color, aromatic, spicy, strong odour and taste is pungent, aromatic. Chemical constituent's of Lavang has Clove oil is a composition of different compounds, with the main active ingredients being eugenol acetate (1.2%), eugenol (76.8%) volatile oil (16-21%) Phenol chiefly eugenol (80-88%) acetyl eugenol (10-15%) Tannins (10-13%) methyl furfural dimethyl furfural and Caryophyllene. Clove oil is Colour less or Pale yellow with the taste of cloves and Characteristic aroma. The clove oil usually eugenol, alpha-humulene, beta-caryophyllene, Caryphyllene oxide and eugenyl acetate.

Medicinal Uses: Cloves, people also use its essential oils for medicinal use. It also is used antifungal, antioxidants, antibacterial, anti-inflammatory. Powder of cloves paste in honey to treat acne, paste of clove powder in water promotes faster healing of cuts and bits.Clove oil is effective in curing Athletes foot and nail fungus, Anti viral activity, Mosquito repellent [44-48].

Garlic

Botanical Description: Botanists classify all true garkics under the species *Allium Sativum*. A number of different plant species of the genus Allium are known as wild Garlic: *Allium nigrum* (Black Garlic), *Allium tuberosum* (Chinese chive, oriental), *Allium Canadense* (meadow Garlic, wild Garlic) family Liliaceae. Garlic has bulb (the only part eaten) is a of a compound nature, consisting of numerous bulblets. The majority of garlic is water and the bulb of the dry weight is composed of fructose containing carbohydrates, followed by sulfur, protein, fibers and free aminoacids. Chemical constituent's of Garlic contains Copper, iron calcium, zinc and vitamins are A, B and C, fiber and water. Amino acid are arginine, histidine, glutamine, lysine, swine, threonine, valine, glycine, alanine, valine, proline, leucine, Phenylalanine, tryptophan. It has higher concentration of sulfur compounds that any other Allium Species. The allinase enzyme responsible for diallylthiosulfanate conversion between inactivated below a pH of 3.5 or with heating

Medicinal Uses: 1. Cutaneous corn: A Clinical trail reveals that the applications of garlic extract on the cutaneous corns causes the removal of locations. The surrounding fibrin tissue of the corn capsule is lyzed and the capsule is separated from the main tissue. It seems due to the Fibrinolytic effects of garlic extract. 2. Wound healing: According to study conducted by Bojs et al., contact allergy to garlic can be effective on wound healing. Investigation on chicken skin wounds exposed to aged garlic extract show an increase in the ref epithelialization and profuse dose-dependent neo vascularization. 3. Viral infection: Components of garlic have been shown to have antiviral effects and inhibit cellular proliferation of virally infected cells. One placebo-controlled trial demonstrates that the application of chloroform extracts of garlic results in the complete resolution of cutaneous warts without recurrence after 3-4 months [49-54].

*Aloevera*

Botanical description: *Aloevera* is Alo barbadens is miller family Asphodelaceae (*Liliaceae*) and is arborescent or shrubby, perennial, Xerophytic, Succulent, Pea-green color plant. It grows mainly in the dry regions of Asia, Europe, Africa and America. In India it is found in Andhrapradesh, Rajasthan, Gujarat and Tamil Nadu. The plant has triangular, fleshy leaves with serrated edges, yellow tubular flowers and fruits that contain numerous seeds. Leaf consists of an inner clear gel that contains 99 percentage water and rest is made of glucomannans, aminoacids, lipids, sterols and vitamins. Second layer of latex which is the bitter yellow sap and contains Anthraquiones and glycosides. Outerlayer is thick it contains 15-20cells called as rind which has protective function and synthesizes carbohydrates and proteins. Chemical constituents are vitamins are A,C,E are antioxidants and vitamin B12, B9 and choline, enzymes are alkaline phosphate, bradykinine, amylase, carboxypeptidase, catalase, lipase, cellulose. Bradykinase helps to reduce excessive inflammation when applied to the skin topically. Minerals are calcium, copper, Magnesium, Selenium, Manganese, sugar are mannose-6-phosphate, glucomannans, novel antiflammatory compound, C-glucosyl chrome. Anthraquiones, alolin, emodin act as antibacterials. Fattyacids are steroids like cholesterol, campesterol, lupeol and beta sitosterol lupeol is antiseptic and analgesic properties. Saponins that are soapy substances have cleaning and anisptic action.

Wound healing effect of *Aloevera*: Glucomannans, a manose rich polysaccharides, interacts with growth factor receptors on the fibroblast, there by stimulating its activity and proliferation, which in turn significantly increases collagen synthesis after topical and oral *Aloevera*. Aloe gel not only increased collagen content of the wound but also changed collagen composition and increased the degree of collagen crosslinking. Due to this, it accelerated wound contraction and increased the breaking strength of resulting Scar tissue [55-62].

*Lantana camara*

Botanical description: It is dried leaves of plant *Lantana Canada* Linn. belongs to family verbenaceae. Synonym of Lantana is wild-sega, white saga Caribbean. *Lantana Camara* has little cylindrical molded flowers which each have four petals and are orchestrated in groups in terminal regions stems. flowers come in a wide range of hues including red, White, yellow orange and pink which contrast contingent upon area in inflorescence and development. The leaves are comprehensively praise, inverse, basic and have a solid smell when squashed. Chemical constituents contains Glycoside, flavonoids, monosaccharide, polysaccharides, alkaloids it likewise contains terpenesand saponin responsible for wound healing. The essential oil obtained by hydro distillation of shade dried leaves of *L. camara*, alpha curcume, bicycle gnermacrene, trans-caryophyllene, alpha-pinene, oxygenated monoterpenes.
Medicinal use: It has used for fungicidal, insecticidal and antimicrobial properties, use as germicide, inflammatory antibacterial and furthermore for all intents and purposes recuperated cut ulcers, and swellings. Wound healing activity has also additionally been utilized in herbal medicines for treating variety. *Lantana Camara* used in herbal medicine for the medication of skin itches, as an antiseptic or disinfectant for wounds and remotely for Leprosy and Scabies [63-66].

**Moringa oleifera**

**Botanical description:** *Moringa Oleifera* is the most generally developed types of the variety *Moringa*, which is the main class in the family Moringaceae. *Moringa oleifera*, native to India, grows in the tropical and subtropical regions of the world. It is commonly known as ‘drumstick tree’ or ‘horseradish tree’. Moringa can withstand both severe drought and mild frost conditions and hence widely cultivated across the world. *M. oleifera* is a quickly developing, deciduous tree. It can arrive at a tallness of 32-40 ft and the storage compartment can arrive at a measurement of 1.5 ft. The color of bark has white grey and is surrounded by thick cork but the young shoots have greenish-white or purplish hairy bark. The tree has an open crown of hanging, delicate branches and the leaves develop padded foliage of tripinnate leaves. the flowers are about 1.0-1.5cm long, 2cm broad. there are fragrant, bisexual, surrounded by 5 inconsistent, intili veined, yellowish- white petals. Flowers starts inside the initial a half year in the wake of planting. In occasionally coolarea, flowering just occurs once a year between April and June. In progressively consistent occasionally temperature and with steady rainfall, flowering can happen twice or even lasting through the year. Chemical constituents were octadecenoic corrosive, 4-hydroxy-4methy-2-pentanone, 3-ethyl-2, Phytol, 4-dimethy-pentane, benzene ethamin main substance component are moringine, pterygospermin,behenic corrosive, morigin corrosive, moringinine spirochin, niazin A and B, Campesterol, amino acids.

Medicinal use: *Moringa olifera* is a therapeutic plant broadly utilized in folkloric medication of Asia and Africa for the treatment of infirmities for example it has couter-irritant action, which helps in wound recuperating. Leaves have additionally been accounted for its anti-tumor, antioxidants, hypotensive, antiinflammatory properties. It is basically used for the atherosclerosis, bowel disorders, joint inflammation, bladder infections, burns, chronic fatigue syndrome, cold, congestion, constipation, fever, gastric ulcers, gingivitis, headache, heart disease, menstrual spasms, mouth sores, ringworms, skin irritation and wounds, especially the aqueous extract was contemplated, and it was the significant increase in skin-breaking quality, wounds closure rate, granuloma breaking quality, hydroxyproline content, decrease in scar area, granuloma dry weight was observed [67-70].

**Tecomaria capensis**

**Botanical description:** It is a fresh leaves of plant *Tecomaria Capensis* Thunb. It is a species of flowering plant family is Bignoniaceae. Synonym are *Tecoma capensis, Bigno is capensis*, cape honey suckle. It develops 7-10 ft in height and similar width. generally every green it might lose its leaves in colder atmosphere. The leaves are up to 15cm long. They are inverse, marginally serrated, green to dim green and pinnate with 5 to 9 oval pamphlets. They are grouped in 10-15cm long terminal bunches. The flower shading ranges from Orange to orange red to apricot. It contains sterols, terpenes, tannins, flavonoids, saps, sugars, phenolic nucleus in all the species where as alkaloids, phlobatanins.

Medicinal use: Past examination demonstrated that anti-dysentric and anti- diarrhoeal properties of therapeutic plants have been because of the presence of flavoinds , saponins and alkaloids. Generally saponins were available in any extract very single tested flower, these are responsible for antioxidants activities. Tannins have been broadly utilized in the treatment of injuries, wounds and shallow injuries. The plant is utilized as a conventional medication to relieve spin and restlessness, ethanolic extract was screened antiulcer, anti inflammatory, analgesic activity. Dried and powdered bark imbueaments are taken for restlessness, methanol extract of leaves used for antimicrobial and cancer prevention agent. *Tecomaria capensis* is known to advance the wound healing process mainly because of their astringent, free radical scavenging activities also essentially invigorated wound contraction [71-74].

**Barleria Prionitis**

**Botinaca description:** It is a fresh leaves of plant *Barleria prionitis*, it is a species of plant belonging to the family Acanthaceae. Synonyms are Sanskrit kuranta, Marathi vrujandati. The stems and branches are solid and smooth and light brown color to light grey in color. Porcupine flower is an erect, thorny Bush, generally single-stemmed, growing to about 1.5 cm tall. The leaves are over to 100 mm long and 40 mm wide and oval shaped. The yellow-orange cylindrical roses are found grouped family together at the highest point of the plant, yet they additionally happen independently at the base of leaves. The flowers are 40 mm long and tubular with a few long jutting stamens. Leaves are known to contain 6-Hydroxy falvone, it is frequently the host to larvae of phalanta phalanta and junonia leoniomias butterflies. From the flying pieces of *Barleria Prionitis*, one new phenylethanol glycoside, barlerinoside along side six known iridoid glucoses, 7-methoxy diderroside, barlerin, acetylbargerin, shanzhishide methyl ester, 6-O-trans-p-Coumaroyl-8-O-acetylsanzhishide methyl ester and lupulinoside were secluded.

Medicinal use: It has various medicinal properties including, toothache, joint agonies, treating fever, respiratory problems and an assortment of different diseases and it has a several cosmetic uses. The leaves are used to advance healing of wounds. Mouthwash produced using root tissue is utilized to relieve toothache and treat bleeding gums because of its antiseptic properties, extract of the plant are fused into herbal cosmetic and hair items to advance skin , scalp wellbeing. Cancer prevention agent action, diminish blood glucose level.

**Conclusions**

In this review, we only mentioned a wide plethora of some herbal plants from all over the world. The different medicinal plant phytochemicals produced secondary metabolites and other products that have beneficial effects on wound healing, including enhancement of the skins natural repair mechanisms. Traditional use of different plants, as well as our steadily enhancing knowledge about corns and calluses wound healing physiology importantly contribute to the popularization of studies of herbs and herbal materials from the physiological and therapeutic point of view. This in turn contributes also to a steadily increasing number of herbal.
products for corns wound treatment and management. Many herbs have a bright future either in curative or preventative use of active compound is a new strategies to improve the wound healing.

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