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Medicinal plants used in the healing of skin diseases in different regions of India: A Review

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ABSTRACT

Various plant species are used in the treatment of skin diseases, like leprosy, scabies, rash, wound, psoriasis, swelling, eczema, dandruff. A large number of plants/plant extracts/decoctions or pastes are equally used by tribal's and folklore traditions in India for treatment of cuts, wounds, and burns. The traditional healers are on the decline because the younger members of the tribe have started moving towards the towns and cities and are not willing to practice this form of medicine. There is danger that the knowledge of these medicinal plants will also die with them. It is therefore, necessary to document the plants and take efficient steps to conserve them. Skin health is increasingly becoming an important aspect of primary health care among many communities particularly because of the increased challenge of HIV-AIDS, skin conditions being among the common opportunistic diseases in immuno-compromised individuals. This study investigated the use of traditional remedies in managing various skin conditions by people of different Regions of India. The present review thus attempts to analyze the ethno botanical knowledge of medicinal herbs utilize for treatment of various skin diseases using by people of different Regions of India.

Keywords: Skin diseases; Traditional medicines, Medicinal herbs, Ethno botany

INTRODUCTION

Skin disease is a common ailment. Skin complaints affects all ages from the neonate to the elderly and cause harm in number of ways. Survey suggest that approximately 1 to 7 in 10 of all visits to a primary care physician is for a skin problem and that for many hospitals the number of patients attending for dermatological diagnosis and treatment exceeds the total number of visits for the whole of medicine. Population prevalence studies are in keeping with these figures, revealing an enormous burden of undiagnosed, untreated skin disease. The management process depends upon the chronicity of the illness, investigations done to identify the disease, and the apt medications given[1]. Infectious diseases, particularly skin and mucosal infections, are common in most of the tribal inhabitants due to lack of sanitation, potable water and awareness of hygienic food habits. An important group of these skin pathogens are the fungi, among which dermatophytes and *Candida* spp., besides certain pathogenic bacteria are the most frequent [2, 3]. Furthermore, in the last few years, the number of immunesupressed and immunocompromised patients, who frequently develop oppor-tunistic systemic and superficial mycoses [4, 5] .Such as candidiasis, dermato-mycosis, fungal infections etc., have increased dramatically[6, 7, 8] . This is mainly due to the non-availability of effective antifungal drugs for systemic fungal infections and toxicity of available drugs like amphotericin-B [9, 10].Thus there is an increased need for the development of alternative antipathogenic substances. One possible approach is to screen local medicinal plants in search of suitable chemotherapeutic antibacterial and antifungal substances. The herbalists prescribed various preparations of medicinal plants in treating ailments such as itch, eczema, scabies and skin diseases [11, 12, 13]. Skin diseases amount to as high as 34% of all occupational diseases [14]. Recently the practice of herbal medicine has been declining in the very places where it has been once developed and nurtured by oral tradition. This may in future lead to the loss of valuable information about the plants used [15]. The demand for herbal medicines is increasing rapidly due to their lack of side effects. Further as health care costs continue to escalate, the attraction for low-cost remedies has stimulated consumers to re-evaluate the potential of alternatives [16]. According to WHO, herbal medicines serve the health needs of about 80% of the world's population, especially for millions of people in the vast rural areas of developing countries [17]. In Ethiopia, traditional remedies represent not only part of the struggle of the people to fulfill their essential drug needs but also they are integral components of the cultural beliefs and attitudes [18]. The Ethiopian flora is estimated to contain between 6500 and 7000 species of higher plants of which about 12% are endemic. Ethiopia is also a home for many languages, cultures and beliefs that have in turn contributed to the high diversity of traditional knowledge and practice of the people, which, among others include the use of medicinal plants. More than 95% of traditional preparations in the country are of plant origin [19, 20]. Some of the common uses of the medicinal plants sold in markets include fumigation, vermifuge, pain relief and treating skin infections. Antimicrobial and wound healing plants are among some of the major medicinal plants that are commonly available in markets [21]. The classical systems of Indian Medicine especially Ayurveda, Siddha and Unani employed a large number of medicinal plants for treatment of skin diseases which includes cuts, wounds and burns. Medicinal plants have been used since time immemorial for treatment of various ailments of skin and dermatological disorders especially cuts, wounds and burns.

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MEDICINAL PLANTS USED IN THE HEALING OF SKIN DISEASE BY PEOPLE OF VARIOUS REGIONS

In our previous review Ethno-potential of medicinal herbs in skin diseases: An overview we considered all the medicinal plant which is widely used in the treatment of skin disease in the various countries including India. It is very tuff job to summarize all the medicinal plant of different region of India which have potentially used to treats various skin disorder. Present review is an effort to put collectively all the medicinal plants of different region of India which have potential in the healings of numbers of skin disorder or in the dermatology.

1.Description of the medicinal plants used by people of Eastern Ghats, Andhra Pradesh, India for healing skin diseases.[22]

R R Venkata Raju et *al.* were studied on ethno pharmacological and antimicrobial properties of certain medicinal plants used by adivasi tribes of the Eastern Ghats of Andhra Pradesh, India. Ethanolic extracts of 23 crude drug samples used for various skin diseases. **(Table no. 1)**

Table-1.

Botanical name	Family	Part used	Common name	Major cure
Andrographis paniculata	Acanthaceae	Whole plant	Nees Nelavemu	Warts
Semecarpus anacardium	Anacardiaceae	Stem bark	Nallazeedi	Eczema
Pimpinella tirupatiensis	Apiaceae	Root tuber	Kondakotimeera	Abscess
Aristolochia indica	Aristolochiaceae	Root	Tellaeswari	Rash
Acanthospermum hispidum	Asteraceae	Whole plant	Seemapalleru	Skin diseases
Pentanema indicum	*Asteraceae*	*Whole plant*	*Chiruchamanti*	*Skin diseases*
Sphaeranthus indicus	Asteraceae	Leaf	Bodataramu	Scabies
Terminalia pallid	Combretaceae	Fruit	Tellakaraka	Inflammation
Fluggea leucopyrus	Euphorbiaceae	Leaf	Tella pali	Sores
Phyllanthus reticulates	Euphorbiaceae	Leaf	Pulicheru	Psoriasis
Crotalaria ramosissima	Fabaceae	Flower	Kottelimokka	Eczema
Entada rheedei	Fabaceae	Stem	Spreng	Scabies
Rhynchosia beddomei	Fabaceae	Leaf	Kondakandi	Skin diseases
Ammannia baccifera	Lythraceae	Leaf	Agnivendramu	Skin diseases
Cipadessa baccifera	Meliaceae	Leaf	Adavikarivepa	Wounds
Syzygium alternifolium	Myrtaceae	Fruit	Mogi	Wounds
Plumbago zeylanica	Plumbaginaceae	Root	Chitramulamu	Ringworm
Canthium dicoccum	Rubiaceae	Wood	Nallabalusu	Dandruff
Gmelina asiatica	Verbenaceae	Fruit	Gummudu	Eczema
Premna latifolia	Verbenaceae	Stem bark	Nelli chettu	Ringworm
Vitex altissima	Verbenaceae	Stem bark	Nemaliadugu	Wounds
Globba marantina	Zingiberaceae	Root	Kalingadumpa	Leucoderma
Zingiber roseum	Zingiberaceae	Rhizome	Adavi allamu	Skin diseases

2. Description of the medicinal plants used by people of Assam for healing skin diseases [23].

Bora Utpal et *al.* Were studied on Ethno botany of medicinal plants used by Assamese people for various skin ailments.They reported that 85 plants belonging to 49 families have been documented for their therapeutic use against skin diseases and as herbal care. **(Table no. 2)**

Table-2

Botanical name	Family	Part used	Common name	Major cure
Acacia farnesiana	Mimosaceae	extracted gum	Tarua kadam	Skin burns
Aegle marmelos	Rutaceae	Leaves	Bel	Abscess
Allium sativum	Alliaceae	Bulb	Naharu	Leprosy, Ringworm
Aloe barbadensis	Aloaceae	Leaves	Chaal kuwari	Skin burns
Alstonia scholaris	Apocynaceae	Bark	Satiyana	Leprosy
Amaranthus spinosus	Amaranthaceae	Whole plant	Kaata khutara	Eczema
Aquilaria agallocha	Thymelaeaceae	Leaves	Agaru	Leprosy
Azadirachta indica	Meliaceae	Leaves	Neem	Eczema
Basella rubra	Basellaceae	Leaves	Puroi shaak	Skin burns
Brassica juncea	Brassicaceae	Seeds	Sariyah	Scabies Pimples
Cajanus cajan	Fabaceae	Seeds	Arahar dail	Scabies
Canarium resiniferum	Burseraceae	Seeds	Dhuna	Skin burns
Capsicum spp.	Solanaceae	Fruit	Khud jalakia	Scabies
Carica papaya	Caricaceae	Fruit	Amita	Skin burns Pimples
Centratherum anthelminticum	Asteraceae	Seeds	Sumraj	Leprosy
Citrus limon	Rutaceae	Fruit	Gulnemu	Dry skin Pimples
Citrus medica	Rutaceae	Fruit	Sumthiratenga	Wrinkled skin
Citrus odorata	Rutaceae	Fruit	Nemu	Eczema
Clitoria ternatea	Fabaceae	Flower	Aparajita	Leprosy
Cocos nucifera	Arecaceae	Fruit	Narikal	Scabies
Curcuma longa	Zingiberaceae	Roots	Haladhi	Wrinkled &Dry skin Scabies
Datura stramonium	Solanaceae	Leaves	Dhatura	Eczema
Daucus carota	Apiaceae	Roots	Gajar	Skin burns, Scabies
Emblica officinalis	Euphorbiaceae	Fruit	Amlokhi	Scabies Dry & Wrinkled skin
Foeniculum vulgare	Apiaceae	Seed	Chauf	Scabies
Jatropha curcas	Euphorbiaceae	Leaves	Bongali ara	Wrinkled skin
Justicia adhatoda	Acanthaceae	Leaves	Baahak	Leprosy
Lawsonia inermis	Lythraceae	Leaves	Jetuka	Wrinkled skin
Lens esculenta Moench	Leguminosae	Seed	Masoor dail	Pimples
Lycopersicon esculentum	Solanaceae	Fruit	Bilahi	Scabies Wrinkled skin
Musa spp.	Musaceae	Fruit peel	Bhim kal	Leprosy, Skin
Osbeckia nepalensis	Melastomataceae	Leaves	Baga futkala	Leprosy
Saraca indica	Leguminosae	Wood	Ashok	Skin burns
Solanum tuberosum	Solanaceae	Roots	Alu	Skin burns
Swertia chirata	Gentianaceae	Leaves	Siretta	Leprosy, Scabies
Thevetia nerifolia	Apocynaceae	Roots	Baga karabi	Leprosy
Tinospora cordifolia	Menispermaceae	Leaves	Gulancha	Leprosy
Trigonella foenum	Fabaceae	Seeds	Methiguti	Skin burns
Vitex negundo	Lamiaceae	Leaves and roots	Pasatiya	Eczema

3. Description of the medicinal plants used by people of Karnataka for healing skin diseases [24].

Hegde G.R. *et al.* were studied on Ethnobotany of medicinal plants used as herbal remedies for skin diseases in Uttara Kannada district of Karnataka. In present study 52 herbal preparations from 31 plants belonging to 21 families have been recorded. **(Table no. 3)**

Table-3

Botanical name	Family	Part used	Common name	Major cure
Graptophyllum hortense	Acanthaceae	Root paste	Daasapatre	Skin diseases
Alangium salvifolium	Alangiaceae	Root paste	Ankole	Scabies
Ervatamia heyneana	Apocynaceae	Root paste	Maddarasa	Skin allergies
Aristolochia indica	Aristolochiaceae	Root	Eeshwari	Skin allergies
Cassia fistula	Caesalpiniaceae	Leaves	Kakke	scabies, warts and ringworm
Caesalpinia crista	Caesalpiniaceae	Seed paste	Gaijuga	skin allergies and Scabies.
Abrus precatorius	Fabaceae	Seed powder	Gulagunji	Scabies and Eczema.
Coleus amboinicus	Lamiaceae	Leaf juice	Sambar soppu	Skin allergies
Ocimum sanctum	Lamiaceae	Leaf juice	Tulasi	Scabies and other Skin diseases.
Lawsonia inermis	Lythraceae	Leaf paste	Madarangi	Scabies on head
Tinospora cordifolia	Menispermaceae	Whole plant or stem	Amrutaballi	Ringworm and Scabies
Ficus exasperata	Moraceae	Root paste	Garagatti	Eczema.
Naravelia zeylanica	Ranunculaceae	Stem paste	Talevadatada balli	Itches, Scabies, Allergies
Aegle marmelos	Rutaceae	Leaves	Patre	Scabies
Holoptelea integrifolia	Ulmaceae	Bark	Tapasi	Eczema.
Clerodendrum infortunatum	Verbenaceae	Root	Taggi	Eczema.

4. Description of the medicinal plants used by people of Maharashtra for healing skin diseases [25].

Jagtap S. D. *et al.* were studied on the some unique ethnomedicinal uses of plants used by the Korku tribe of Amravati district of Maharashtra, India. Traditional uses of 66 plant species belonging to 40 families are described under this study. The documented ethnomedicinal plants were mostly used to cure skin disorders, diarrhea, jaundice, tuberculosis, stroke, migraine, menstrual problems, fertility problems, urinary problems, piles, wounds and poison bites. Out of them only few species are used in the treatment of skin disease. **(Table no. 4)**

Table-4

Botanical name	Family	Part used	Common name	Major cure
Ailanthus excelsa	Simaroubaceae	Bark powder	Maharukho	Body swelling
Buchanania cochinchinensis	Anacardiaceae	Dry seed	Torab	Skin diseases
Ipomoea pes-tigridis	Convolvulaceae	Whole plant	Kidamari	Wound healing
Pueraria tuberose	Fabaceae	Root powder	Bharda	Wound healing

5. Description of the medicinal plants used by people of Kanyakumari district, Southern India for healing skin diseases [26].

Kannan D. *et al.* were studied on the Plant species used in the treatment of skin diseases among the indigenous communities of Kanyakumari district of Tamil Nadu. Thirty plant species belonging to 29 genera and 22 families were found to be used specifically in the treatment of various 11 skin diseases dandruff, eczema, impetigo, leprosy, parasite, psoriasis, rash, scabies, swellings, tinea cruris and tinea versicularis. **(Table no. 5)**

Table no. 5

Botanical name	Family	Part used	Common name	Major cure
Acorus calamus	Araceae	Rhizomes	Vasampu	Eczema.
Aegle marmelos	Rutaceae	Fruits	Vilvam	Scabies
Anacardium occidentale	Anacardiaceae	Powdered bark	Kollamaram	Leprosy
Andrographis paniculata	Acanthaceae	Leaf juice	Nilavembu	Tineacruris.
Argemone Mexicana	Papaveraceae	Pounded seeds	Premathandu	Skin diseases
Asparagus racemosus	Liliaceae	Tuber	Thannervittan-kizhangu	Sskin diseases
Azadiracta indica A. Juss	Meliaceae	Flowers	Vembu	Dandruff
Cassia alata	Fabaceae	Pounded leaves	Seemai Agathi	Tinea versicularis
Cassia auriculata	Caesalpiniaceae	Dry leaf	Avarai	Skin disease
Clerodendron inerme Gaertn	Verbenaceae	Leaf juice	Changukuppy	Skin diseases.
Crinum defixum	Amaryllidaceae	Pounded bulbs	Vishanarayani	Tinea cruris.
Curcuma aromatica	Zingiberaceae	Rhizomes	Kasturimanjal	Cure impetigo.
Cynodon dactylon	Poaceae	Pounded leaves	Arukampullu	Skin diseases.
Datura metel	Solanaceae	Leaf juice	Ummattai	Inflamation
Glycyrrhiza glabra	Fabaceae	pounded stem	Atimaturam	Leucoderma & skin diseases
Hygrophila auriculata	Acanthaceae	Dried leaf	Neermulli	Skin diseases.
Indigofera aspalathoides	Fabaceae	Bark	Sivanarvembu	Leprosy.
Lawsonia inermis	Lythraceae	Leaf	Maruthani	Cure impetigo
Madhuca longifolia	Sapotaceae)	Seeds	Eluppai	Skin diseases.
Ocimum tenuiflorum	Lamiaceae	Leaves	Tulaci	Tinea versicularis.
Phyla nodiflora	Verbenaceae	leaf juice	Poduthalai	Dandruff
Pongamia pinnata	Fabaceae	Bark	Punkumaram	Skin diseases
Saraca asoca	Caesalpiniaceae	dried flowers	Asogam	Scabies
Terminalia bellerica	Combretaceae	seeds	Tanrikkai	Against rash.
Trichosanthes lobata	Cucurbitaceae	Whole plant	Peppudal	Leprosy
Wrightia tinctoria	Apocynaceae	Pounded leaves	Veppalai	Psoriasis.

6. Description of the medicinal plants used by people of Tamilnadu, for healing skin diseases [27].

Mohan V. R. *et al.* were reported in his studied the wild plants found in this region that are used especially for treating skin diseases. **(Table no. 6)**

Table-6

Botanical name	Family	Part used	Common name	Major cure
Abrus precatorius	Fabaceae	Root	Kundumani	Dandruff.
Abutilon indicum	Malvaceae	Leaves	Tutti	Ringworm infection.
Acalypha indica	*Euphorbiaceae*	*Leaves*	*Kuppaimeni*	*Skin diseases*
Aegle marmelos	Rutaceae	Leaves	Vilvam	Itches
Aerva lanata	Amaranthaceae	Whole plant	Kannupeelai	Eczema.
Amaranthus spinosus	Amaranthaceae	Inflorescence	Mullukkirai	Eczema and other skin diseases
Andrographis paniculata	Acanthaceae	Leaves	Nila Vembu, kiriuatlhi	ringworm infection
Andrographis rothii	Acanthaceae	Epidermal peel of stem	kaya patchilai	Healing
Argemone Mexicana	Papavaraceae	Leaves	Ponnumathai	Wounds healing.
Aristolochia indica	Aristolochiaceae	Vegetative Part	Thalaisurulivaer	Dandruff.
Asparagus racemosus	Asparagaceae	Root-tuber &root.	Thanneervittan kizhangu	Lumbago andLeucorrhoea.
Azadirachta indica	Meliaceae	Leaves &seed oil	Veppu	Skin infection, eczema.
Begonia malabarica	Begoniaceae	Leaves	Malaipulichi	Ringworm infection.
Boerhavia diffusa	Nyctiginaceae	Leaves	Vethalamai	Ringworm infection.
Calotropis gigantean	Asclepiadaceae	Leaves and latex	Erukku	Eczema
Canthium parviflorum	Rubiaceae	Leaves	Kattikarai	Ringworm infection.
Cassia alata	Caesalpiniaceae	Leaves	Yanaithavarai	Ringworm infection
Cassia fistula	Caesalpiniaceae	Leaves	Konnei	Skin injuries.
Cassia tora	Caesalpiniaceae	Root	Tagarai	Skin diseases
Cissampelos pareira	Menispermaceae	Whole plant	Malaithanki pachilai	Ringworm infection
Clerodendrum inerme	Verbenaceae	Leaves	Changukuppi	Ringworm infection
Clitoria ternatea	Fabaceae	Root & Leaves.	Shangupuspam	Inflammation, Scabies
Commelina benghalensis	Commelinaceae	Leaves	Valaipachai	Scabies, wounds healing
Curculigo orchioides	Hypoxidaceae	Fresh leaves	Nilapanai	Ringworm infection
Cynodon dactylon	Poaceae	Tuber	Arugampullu	Leucorrhoea
Datura metel	Solanaceae	Leaves	Yumattai	Pimples.
Eclipta prostrata	Asteraceae	Leaves	Karisalankanni	Dandruff, ringworm infection
Elephantopus scaber	Asteraceae	Leaves & Rhizome	Yanaichavattadi	Ringworm infection
Erythrina variegate	Fabaceae	Leaves	Mullumurukku	Ringworm infection
Evolvulus alsinoides	Convolvulaceae	Whole plant	Vishnukarandi	Leprosy
Ficus benghalensis	Moraceae	Stem Latex	Aal	Lumbago.
Ficus racemosa	Moraceae	Stem Latex	Atthi	Cracks in the feet
Ficus religiosa	Moraceae	Stem Latex	Arasu	Cracks in the feet
Hemidesmus indicus	Periplocaceae	Root	Nannari	Heal the fissures in the foot
Hiptage bengalensis	Malpighiaceae	Leaves & Flowers	Mattavirkodi	Eczema, scabies, Ringworm infection
Indigofera tinctoria	Fabaceae	Whole plant	Vannan avuri	Ringworm infection.
Ipomoea staphylina	Convolvulaceae	Stem latex	Adhathodai	Leucorrhoea.
Ixora coccinea	Rubiaceae	Flower	Thumbai	healing the cracks
Jatropha curcas	Euphorbiaceae	Leaves	Thottasurungi	Eczema.
Justicia adhatoda	Acanthaceae	Leaves	Adhathodai	Ringworm infection
Leucas aspera	Lamiaceae	Flower, Leaves	Thumbai	Ringworm infection
Mimosa pudica	Mimosaceae	Root, Leaves	Thottasurungi	Ringworm infection
Mirabilis jalapa	Nyctaginaceae	Tuber	Anthimantharai	Cuts and wounds
Mollugo pentaphylla	Molluginaceae	Whole plant	Pappadai	Sebaceous cysts and polyps
Morinda pubescens	Rubiaceae	Fresh Leaves.	Manjanatti	Eczema
Mukia maderaspatana	Cucurbitaceae	Leaves.	Kattuvellari	Wounds
Ocimum tenuiflorum	Lamiaceae	Fresh leaves	Tulsi	Wound
Phyllanthus emblica	Euphorbiaceae	Fruits	Nellikai	Scabies
Piper nigrum	Piperaceae	Leaves.	Nallamilagu	Ringworm infection
Plumbago zeylanica	Plumbaginaceae	Leaves.	Venkodivete	Ringworm infection
Pongamia pinnata	Fabaceae	Bark	Pongan	Eczema, psoriasis, rashes,
Rubia cordifolia	Rubiaceae	Root	Koduvilli	Healing the injury.
Saraca asoca	Caesalpinaceae	Flower	Asokam	Eczema and scabies
Tephrosia purpurea	Fabaceae	Whole plant	Kolingi	Skin injuries
Tribulus terrestris	Zygophyllaceae	Fruits	Sirunerinji	Leucorrhoea
Trichopus zeylanicus	Dioscoriaceae	Leaves	Arokyapachilai	Ringworm infection
Tridax procumbens	Asteraceae	Fresh Leaves	Mookutthielai	Eczema
Vernonia cinerea	Asteraceae	Leaves	Kucharipoo	Leprosy and scabies
Wrightia tinctoria	Apocynaceae	Leaves	Vetpalai	Skin infections.

CONCLUSION

The findings of the study envisage that the herbal medicine have great potentiality to cure different kinds of skin diseases. The indigenous rural community depends on traditional healthcare system. About 80% of human population in India is using herbal medicine to cure

different kinds of diseases. This study investigated the use of traditional remedies in managing various skin conditions by people of different Regions of India. It is very tuff job to summarize all the medicinal plant of different region of India which have potentially used to treats various skin disorder. It is an effort to put collectively all the medicinal plants of different region of India which have potential in the treatment of numbers of skin disorder or in the dermatology. The medicinal wealth of the region is not yet explored desirably. There is an generous scope of such kind of studies to gather the information on medicinal plants of different region of India. In addition to this, the ecologists should also pay much attention towards research studies on conservation status and population behavior of such species. Undoubtedly, this will help in developing an appropriate strategy for conservation of important plant species of the region, and also to preserve genetic diversity.

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