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Review on Ethno-medicinal Plants Used for Healing Skin Ailments in Madhya Pradesh, India

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***Abstract*:** Skin diseases are common among the rural population due to inadequate sanitary conditions, insufficient hygiene, and contaminated water. Traditional herbal medicines are effective in curing many skin diseases which are used by several local communities. Plants are also an important source of the world's pharmaceuticals medicine, which are widely used in the treatment of various skin diseases. Ethno-botany is the study of the direct relationship between humans and plants. In Madhya Pradesh, tribes and forest dwellers make up a significant portion of the population. A large number of indigenous peoples live in the most remote and inaccessible parts of the forests. The majority of these tribal groups rely primarily on plant species to treat their diseases. The aim of this paper is to enumerate the plants used to treat skin diseases in Madhya Pradesh based on reported ethnobotanical data from various districts for future studies, as well as to identify areas where similar studies have not yet been conducted.

***Keywords*:** Ethnobotany, Traditional medicines, Skin diseases, Tribal community, Madhya Pradesh

India has a long tradition of using medicinal plants and herbal medicines to cure human illnesses. For the majority of our population in rural and tribal areas, medicinal plants are the only readily accessible health care option. Tribal life, tradition, and culture have remained nearly unchanged for hundreds of years. The tribal's experience acquired over decades reflects an in-depth understanding of forest resources (Choudhary et al 2011). Ethno-botany is the study of direct relationship between man & plants, plants continue to be a major source of world pharmaceuticals and folk-lore medicines, which are widely used to treat a number of skin diseases. Due to poor sanitary conditions, insufficient sanitation, and polluted water, skin diseases are widespread among the rural population. Traditional herbal medicines, which are used by various cultures, are effective in treating certain skin diseases. They are safe, reliable, and accessible, and in many situations, they are the only choice for care (Buragohain and Konwar 2007). Tribes and forest dwellers make up a significant portion of the population in Madhya Pradesh. A significant number of tribal peoples live in the forests' most isolated and inaccessible areas. The majority of these tribal groups depend on plant species to treat their ailments. These tribal's have gained special information about the use of wild flora as a result of their near proximity to nature. According to Census of India 2011, the population of Scheduled Tribal's (ST) is 21.1% of the state population, major tribal's communities in Madhya Pradesh are Bhil, Gond, Kol, Korku, Sahariya ,Baiga followed by Pradhan, Saur, Bharia, Majhi, Mewasi, Panika (Census of India 2011). Approximately 34% of occupational skin disorders are treated with conventional herbal medicines used by various communities (Kadam and Sharma 2013). The aim of this paper is to enumerate the plants used to treat skin diseases in Madhya Pradesh based on reported ethnobotanical data from various districts for future studies, as well as to identify areas where similar studies have not yet been conducted.

Common skin diseases: Skin diseases are a widespread ailment that affects people of all ages, from newborns to the elderly, and can affect them in a variety of ways. There are thousands of disorders that can affect the skin, but the majority of them can be classified into nine groups (Marks et al 2006).

Rashes: A rash is a red, inflamed patch of skin or a series of individual spots. Irritation, allergy, infection, an underlying disorder, as well as structural defects such as pores or malfunctioning oil glands, can cause these. Acne, dermatitis, eczema, hives, pityriasis, and psoriasis are examples of rashes.

Viral infections: These occur when a virus penetrates the stratum corneum and infects the inner layers of the skin. Examples of viral skin infections are herpes simplex, shingales, and warts. Some systemic viral infections such as chicken pox and measles, may also affect the skin. Viral infections cannot be cured by antibiotics.

Bacterial infections: Such infections are caused by a

variety of bacteria, the most common types being Staphylococci and Streptococci. Bacteria may infect the topmost layer of the skin, the follicles, or the deeper layers of skin. Bacterial infections are better treated with antibiotics.

Fungal infections: Harmless fungi are always present on surface the skin. Infections occur when these organisms enter into the body. These infections are usually superficial, affecting the skin, hair, nails and include athlete's foot, lock itch and ring worm.

Parasitic infections: These infections occur after exposure to parasites such as lice and scabies.

Pigmentation disorders: The amount of pigment in the skin is determined by the amount of melanin being produced by the body. Loss of pigment (hypo pigmentation) can be caused by absence of melanocytes, malfunctioning of cells, exposure to cold or chemical, or some type of infection. An increase in pigment (hyper-pigmentation) may be caused by skin irritation, hormonal changes, aging, metabolic disorders etc.

Tumors and cancer: Skin cells replicate at a higher rate than normal, resulting in these growths. Not all skin tumours are cancerous. Some tumors are non-cancerous and do not spread.

Trauma: Trauma describes an injury to the skin caused by a blow, a cut, or a burn. Whenever the surface of the skin is broken, the body becomes more susceptible to infections and disease.

Others conditions: Wrinkles, rosacea, spider veins and varicose veins are among those conditions that cannot be neatly categorized.

Studies Already Done

For the present review, information regarding ethnomedicinal plants and their uses for skin diseases was gathered via searching books and scientific databases including Pubmed, Elsevier, Google Scholar, Springer, etc. These searches were exclusively on ethnobotanical published data from Madhya Pradesh only. A scrutiny of literature reveals that several research papers on ethnomedicinal plants to treat skin ailments of various regions and districts of Madhya Pradesh have been published (Anis et al 2000, Kumar & Khanna 2000, Sahu & Sahu 2004, Jadhav 2006, Vijendra & Kumar 2010, Choudhary et al 2011, Kapale 2012, Srivastava et al 2012, Jitin Rahul and Singh 2013, Kadam and Sharma 2013, Jeetendra and Sudip 2014, Quamar and Bera 2014, Wagh and Jain 2014, Sandiya and Sandiya 2015, Singh 2015, Das et al 2016, Ks et al 2016, Rai 2016, Ahirwar 2017, Kumhar et al 2017, Singhal et al 2017, Jaiswal and Jain, 2018, Ahirwar 2020, Shrivastava et al 2020).

The aforesaid literature reveals that still there are many more districts in Madhya Pradesh where the studies on ethnomedicinal plants and their uses have not done yet. But enumeration of these published data will be helpful for future perspective.

Enumeration: The plants used as ethnomedicine for healing skin diseases in Madhya Pradesh, here enumerated from published data alphabetically by scientific name, followed by common name, family, parts used, skin diseases and methods of preparation are given below in (Table 1). It is found that local of Madhya Pradesh are using approximately 97plants species belonging to 50 families for their skin ailments. They can be classified according to their habit. A graphical representation for this has been presented (Fig. 1). It is found that according to habit those plant species are used in skin ailments herbs are 41, trees are 27, shrubs are 19 followed by climbing shrub 4, climbing herb 3, creeping herb 2 and epiphytic herb 1 in number.

CONCLUSIONS

While recent ethnobotanical studies have identified these medicinal as well as ethnomedicinal values of plants, not all of them have been tested, and many species used by Madhya Pradesh tribes for skin diseases have yet to be investigated for their ethnomedicinal value and to isolate the active principle constituents. The rate with which skin diseases like eczema, wart, psoriasis, chicken pox, tumor, ring worms etc., are progressing it appears to have an immediate and reliable solution for ensuring the human population's safety in the face of such diseases. As a result, there is a strong need to investigate plants that have therapeutic efficacy against such diseases. As a result, an attempt has been made to enumerate plants with such uses, but their claimed activities must still be investigated.

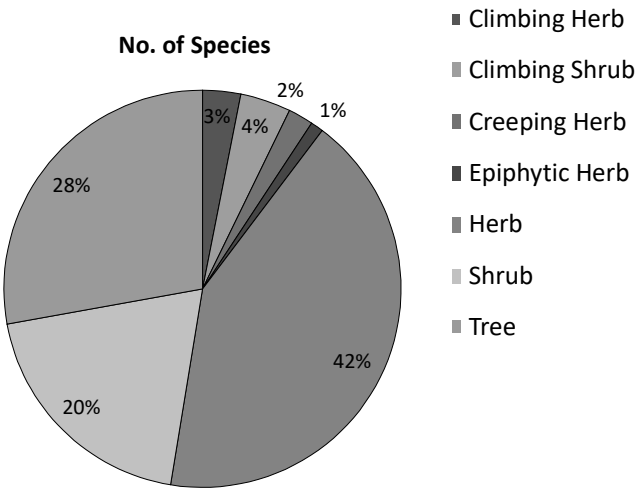

Fig. 1. Graphical representation of habit of ethnomedicinal plants

Table 1. List of ethnomedicinal plants used as skin ailments

Scientific name	Common name	Family	Habit	Parts used	Skin diseases	Methods of preparation
Abelmoschus moschatus Medik.	Kasturi Bhindi	Malvaceae	Herb	Leaf, seeds	Cuts, Wounds	A paste of leaves is applied on the cuts,wounds and sprains. Seeds are also used for same purpose.
Abrus precatorius L.	Ratti	Fabaceae	Climbing shrub	Root	Ringworm Spot	The juice of root, mixed with the half the amount of the juice of *Allium sativum* is applied on ringworm spot.
Acacia sinuata (Lour.) Merr.	Satala	Mimosaceae	Shrub	Pods	Ringworm Spot and Wound	The pods along with *Emblica officinalis, Curcuma longa* and *Rubia cordifolia* are recommended for skin ring worm and wound.
Acanthospermum hispidum DC.	Gokharu	Asteraceae	Herb	Whole Plant	Skin infections, wounds etc.	Paste of whole plants is used to treat skin disease.
Achyranthes aspera L.	Chirchita	Amaranthaceae	Herb	Leaf	Skin infections	Leaf juice with a pinch of salt is applied to cure skin infection
Adiantum philippense Linn.	Hansraj	Adiantaceae	Herb	Rhizome	Dog bites, snake bites	Powder of rhizome applied on area of snake bites and dog bites.
Ailanthus excelsa Roxb.	Adu, Mahaneem	Simaroubaceae	Tree	Leaf	Skin infections	The leaf powdermixed with whole plant of *Solanum xanthocarpum* is used for skin infection
Allium sativum L.	Lahsun	Amaryllidaceae	Herb	Leaf, Roots, Bulb	Wounds ,Bacterial, Viral or on fungal infections leisons.	Boil garlic in mustard oil than apply in affected lesion. Garlic in treating wounds. Antiviral, antibacterial, antifungal,antiparasitic.
Allium tuberosum Roxb.	Ban lahsun	Amaryllidaceae	Herb	Leaf and bulb	Insect bites , wounds etc.	The leaves and bulbs are applied to insect bites, cuts, and wounds.
Aloe vera (L.) Burm.f.	Gwarpatha	Liliaceae	Herb	Leaf	Dry skin, Rash etc.	Leaf pulp is used as a moisturizer
Alternanthera sessilis (Linn.) R.Br. Ex DC.	Gudari shak	Amaranthaceae	Herb	Whole Plant	Burning sensation	The whole plant is used for burning sensation and other skin diseases.
Alternenthera pungens Kunth.	Katua sak	Amaranthaceae	Herb	Leaf	Gonorrhea	Decoction of its leaves is taken to treat gonorrhea.
Amaranthus spinosus Linn.	Chaulai	Amaranthaceae	Herb	Leaf	Scorpion stings and snake bites	Traditionally, leaves are used to treat scorpion sting and snake bite.
Andrographis paniculata (Burm. fil.) Nees	Kalmegha, kirayat	Acanthaceae	Herb	Leaf	Tineacruris,Cut etc.	Leaf juice mixed with cow milk is taken orally twice a day for six to eight days to cure tinea cruris.
Antidesma zeylanicum Lam.	Amti	Euphorbiaceae	Shrub	Leaf	Snake bites	Leaves are used as an antidote for snake bite.
Antigonon leptopus Hook. & Arn.	Antigonum	Polygonaceae	Climbing shrub	Leaf	External skin infections.	Paste of fresh leaves applied externally in skin disorders.
Argemone mexicana L.	Satynasi	Papavaraceae	Herb	Whole Plant	All kinds of skin diseases	Pounded seed along with rhizome of Curcuma aromatica made in to paste are applied on all kinds of skin diseases twice a day till recovery.
Argyreia nervosa (Burm. fil.) Bojer.	Vidhara	Convolvulaceae	Herb	Leaf	Wound	Leaf paste is applied topically on wounds.
Azadirachta indica A. Juss.	Neem	Meliaceae	Tree	Leaf,Bark, young stem.	Wounds, Cuts, Ringworms, Scabies etc.	1 spoon of powder mixed with water/orally thrice in a day/3 days.Effective against skin diseases like ringworms,scabies,wounds.
Bacopa monnieri (L.) Pennell	Brahmi	Plantaginaceae	Herb	Whole Plant	Psoriasis, Eczema etc.	Whole plant juice taken orally to reduce such problems.
Bambusa bambos (L.) Voss	Bans	Poaceae	Shrub	Stem	Wounds	Paste of stem applied on wounds.
Butea monosperma (Lam.)Taub.	Palas	Fabaceae	Tree	Seeds	General wounds and infections.	Seed paste is used to cure skin diseases.
Calotropis procera (Aiton) R. Br.	Arka, Mudar	Asclepiadaceae	Shrub	Root, Latex, Flower, Leaves	Boils, Wounds etc.	The leaves and flower are crushed together, made in to pest and applied tropically on boils.
Carica papaya L.	Papita, Papaya	Caricaceae	Tree	Fruits	Dull skin	Clean and attractive fresh in skin

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Scientific name	Common name	Family	Habit	Parts used	Skin diseases	Methods of preparation
Cascabela thevetia (L.) H. Lippold	Kaner	Apocynaceae	Shrub	Leaf, Root	Skin ailments and Ring worm	Oil is used externally for skin ailments, and ring worm treatment.
Cassia alata L.	Dadukapatta	Fabaceae	Shrub	Leaf	External skin infections.	Leaf paste mixed with seed oil of *Pongamia pinnata* applied externally on skin diseases.
Cassia fistula L.	Amaltas	Fabaceae	Tree	Bark	Fungal skin problems.	Bark is used for fungal diseases.
Cassia tora L.	Charota	Fabaceae	Shrub	Leaf	External skin infections.	Paste of leaf is applied over skin to cure infections.
Centella asiatica (L.) Urb.	Brahmi,Thankuni	Apiaceae	Creeping Herb	whole Plant	Wound, UV damage.	Treatment of wound, and protection of skin ageing damage,UV damage.
Cicer arietinum L.	Gram, Chana	Fabaceae	Herb	Fruits, Roots.	Skin freshener, Ring worms.	Powder paste is applied for skin fresheners and also for cure ring worm.
Clerodendrum infortunatum L.	Pumiyau, Bhant	Verbenaceae	Shrub	Leaf	Common Skin Diseases	The paste of leaf is applied in all types of skin diseases.
Coccinia grandis (L.) Voigt	Kunduru	Cucurbitaceae	Herb	Leaf	Bacterial infections and ring worm.	The leaf paste is used as antibacterial and in treatment of ring worm.
Commiphora wightii (Arn.) Bhandari	Gugul	Burseraceae	Tree	Gum, Leaf	Wrinkles, wound,colour improvement	The paste used in wrinkles and aged skin, skin colour improvement, Wound treatment.
Crotalaria retusa L.	Khunkuniyan, Devil bean	Fabaceae	Shrub	Root, leaf, Seed	Hairfall, external skin problems.	Seed oil is used to treat hair problems, leaf and root paste applied to external skin problems.
Cucumis sativus L.	Khira	Cucurbitaceae	Climbing Herb	Fruits	Skin fresh	Fruits are used as skin fresh.
Curcuma aromatica Salisb.	Van haldi	Zingiberaceae	Herb	Rhizome	Eczema	The Paste of the rhizome with a 50% of Neem leaves powder is applied on the skin against eczema.
Curcuma caesia Roxb.	Kali haldi	Zingiberaceae	Herb	Rhizome	Wounds, Cuts, Ringworm	Grind fresh Rhizomes and put on affected area. Paste is mixed with Neem oil is applied Ring worms control.
Curcuma longa L.	Haldi, Turmeric	Zingiberaceae	Herb	Whole Plant	Stimulation, expectorant, ring worm	Used as stimulative, expectorant, face cream in ring worm etc.
Cuscuta reflexa Roxb.	Amarbel	Convolvulaceae	Herb	Whole Plant	Common skin problems	Paste is applied on affected area.
Dalbergia sissoo DC.	Sheesham	Fabaceae	Tree	Wood, Leaf	Skin diseases	Decoction of bark and heartwood are useful in Skin diseases.
Datura metel L.	Dhatura	Solanaceae	Shrub	Whole Plant	Swelling of gums, Swelling base of ear	Leaf juice is mixed with a little opium and applied to the affected area to reduce swelling of gums or base of ears.
Diplocyclos palmatus (L). C. jeffrey	Shivlingi	Cucurbitaceae	Climbing herb	Whole Plant	Skin Diseases	The seed oil and coconut oil in equal preparation is applied on body in skin disease.
Dryopteris cochleata (D. Don) C. Chr.	Jatashankari	Dryopteridaceae	Herb	Rhizome	Leprosy, Fungal infections, Insect bites etc.	Rhizomes are used as antifungal and antidotes to insect bites. It is also used in epilepsy, leprosy, wounds etc.
Eclipta prostrata (L.) L.	Bhringraj	Asteraceae	Herb	Whole Plant	Eczema, Hair problem	Leaf juice is given in eczema and as hair tonic.
Euphorbia hirta L.	Dudhi	Euphorbiaceae	Herb	Whole Plant	Wound, eczema, ring worm	The latex of the plant is applied topically on wounds. Latex is also applied on eczema. The pest of whole plant applied topically on
Ficus hispida L. f.	Gobla	Moraceae	Tree	Leaf, fruits	Leucoderma	Fresh leaf juice is applied externally for skin disorders like Leucoderma and fruit juice is given internally for 3 days.
Ficus racemosa L.	Gullor	Moraceae	Tree	Latex	Boils	The latex is applied topically on boils.
Ficus religiosa L.	Peepal	Moraceae	Tree	Bark	Skin Diseases	Paste of powdered bark is good for skin diseases
Hedyotis corymbosa L.	Davnapatta	Rubiaceae	Herb	Whole plant	Ring worm	Leaf paste used on ring worm.

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Table 1. List of ethnomedicinal plants used as skin ailments

Scientific name	Common name	Family	Habit	Parts used	Skin diseases	Methods of preparation
Hemidesmus indicus (L.) R. Br.	Anantmool	Apocynaceae	Climbing shrub	Root	Gout, syphilis, wound	Skin diseases gout, syphilis and non- healing wound, soft skin.
Hordeum vulgare L.	Jow	Poaceae	Herb	Grain	External skin infections.	Apply floor of barley with linseed oil & butter milk.
Ipomoea carnea Jacq.	Beshram	Convolvulaceae	Herb	Leaf	Cuts, Wounds	The leaves are fried in mustard oil and tied topically on cuts and wound.
Jasminum angustifolium (L.) Willd.	Chameli, Jasmin	Oleaceae	Herb	Root, Leaf	Dry skin, Rash etc.	The oil used help moisture in the skin to naturally reduce dryness.
Jatropha gossypiifolia L.	Lal ratanjot	Euphorbiaceae	Shrub	Latex	Burn	Latex of plant is applied on burn part of body.
Kalanchoe pinnata (Lam.) Pers.	Patharchata	Crassulaceae	Herb	Leaf	Boils, Insect bites, Wounds etc.	Tender leaves are crushed and mix with wheat husk,coconut oil to apply on the affected part.
Lablab purpureus (L.)Sweet	Semi, Sem	Fabaceae	Herb	Leaf	Dull skin	Leaves paste used bleaching cream, and skin cool.
Lantana camara L.	Machhimudhi	Verbenaceae	Shrub	Leaf	Wounds, Cuts	Leaf paste is an externally applied to wounds and cuts.
Lawsonia inermis L.	Mehendi	Lythraceae	Shrub	Whole Plant	Dry skin, Mud infections	The leaf paste is applied on cracked heels in rainy season due to mud infection.
Leea macrophylla Roxb. ex Hornem.	Hathikana	Vitaceae	Shrub	Root	Cuts, Swelling	Root paste is applied topically on cuts and swelling.
Lens culinaris Medik.	Masoor, Lentil	Fabaceae	Herb	Whole Plant	Skin Diseases	Seed pest is known to cure skin diseases.
Linum usitatissimum L.	Alsi	Fabaceae	Herb	Whole Plant	Wounds	The paste of whole plant is applied topically on wounds.
Madhuca indica J.F.Gmel.	Mahua	Sapotaceae	Tree	Leaf	Wounds	Leaves paste is used topically on wounds.
Mallotus philippensis (Lam.) Müll.Arg.	Kamala, Sindoori	Euphorbiaceae	Tree	Whole Plant	Parasitic infection, wounds	All parts are used in treat parasitic infection of the skin. Wounds treatment.
Mangifera indica L.	Aam	Anacardiaceae	Tree	Gum	Scorpion stings	The gum of the plant is mixed with salt thoroughly and the formed paste is applied on bitten area in scorpion bite.
Melia azedarach L.	Bakayan	Meliaceae	Tree	Leaf	Boils, Eczema, Wounds	Paste of leaves is applied on Boils,Eczema and Wounds.
Moringa oleifera Lam.	Munga, Sahajan	Moringaceae	Tree	Leaf	Skin Diseases	Plant powder is taken internally to treat skin diseases.
Murraya koenigii (L.) Spreng.	Meethi neem, Kadipatta	Rutaceae	Tree	Root	Wounds	Roots are used to curing of wound.
Musa paradisiaca L.	Banana, Kela	Musaceae	Shrub	Fruits	Skin diseases, smooth muscle	Fruits wall used to treat skin diseases and smooth muscle.
Ocimum tenuiflorum L.	Tulsi	Lamiaceae	Herb	Leaf	Skin infections, Insect bites	Leaf juice is applied topically on the affected area.
Origanum vulgare L.	Sathhra, Dounpatti	Lamiaceae	Herb	Whole Plant	Fungal and bacterial skin problems	Whole plant is used as antibacterial and antifungal.
Oxalis corniculata L.	Amrit sak, Amrul	Oxalidaceae	Creeping Herb	Whole Plant	Allergy	The juice of the whole plant is gently rubbed on the skin against allergies for 2-5 days.
Phyllanthus acidus (L.) Skeels	Shri Amla, Harfaauri	Phyllanthaceae	Tree	Bark	Skin diseases	Bark is heated with coconut oil skin diseases treatment.
Phyllanthus emblica L.	Amla, Amlaki	Phyllanthaceae	Tree	Fruits , Leaf	Skin infections	Fruits juice, leaf powder, with Neem leaf and honey is taken for skin infection.
Piper nigrum L.	Kalimirch, Ushan	Piperaceae	Climbing herb	Seeds	Wounds	Seeds are used in wound healing.
Plumbago zeylanica L.	Chitrak, Chita	Plumbaginaceae	Herb	Root	Fungal and bacterial skin problems	Root paste is used as antibacterial and antifungal.

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Table 1. List of ethnomedicinal plants used as skin ailments

Scientific name	Common name	Family	Habit	Parts used	Skin diseases	Methods of preparation
Psidium guajava L.	Amrood, Guava	Myrtaceae	Tree	Fruits , Leaf	Skin complaints, Ring worm, Wounds	The leaves and bark is taken externally as a lotion for skin complaints, ring worm, wound.
Ricinus communis L.	Arandi	Euphorbiaceae	Shrub	Seeds	Inflammatory skin disorder	Seed pest to the skin as a poultice for inflammatory skin disorders.
Saraca asoca (Roxb.)Willd.	Ashok, Sita Ashok	Fabaceae	Tree	Bark	Skin problems	Powder on skin problem by making paste.
Semecarpus anacardium L. f.	Bhilwa, Gheru	Anacardiaceae	Tree	Seeds, Fruits	Face ring worm	Boil the fruit in Rar oil & apply on face ring worm.
Sesamum indicum L.	Til, Safed til	Pedaliaceae	Herb	Seeds	Leprosy, Boils	The oil of seed is applied topically in leprosy. Seed paste is applied on boils.
Smilax fluminensis Steud.	Chobchini	Smilacaceae	Climbing Shrub	Tuber	Skin problems	Powders mixed with coconut oil and apply.
Solanum lycopersicum L.	Tomato, tomator, Bilayti	Solanaceae	Herb	Fruits	Ring worm	Fruit pulp is applied on the area of infection.
Solanum nigrum L.	Makoi	Solanaceae	Herb	Leaf	Skin diseases	Leaves are used as poultice for skin diseases.
Solanum tuberosum L.	Alu, Potato	Solanaceae	Herb	Tuber	Ring worm, Blackish skin	Tuber paste applied topically on ring worm, black skin.
Soymida febrifuga (Roxb.) Juss.	Rohni	Meliaceae	Tree	Bark	Wound	The paste of bark is used for wounds.
Sphaeranthus indicus L.	Murmuriya, Bhuikadam	Asteraceae	Herb	Whole Plant	Common Skin Diseases	Plant powder is taken internally to skin disease.
Strychnos nux-vomica L.	Kuchila, Bilewa	Loganiaceae	Tree	Leaf	Common Skin Diseases	Leaf paste is applied on common skin diseases.
Tephrosia purpurea (L.)Pers.	Meghapati, Sarpankha	Fabaceae	Shrub	Aerial part	Burn wound	Paste of aerial part used to treat burn wound.
Terminalia arjuna (Roxb.) Wight & Arn.	Kahuwa, Arjun	Combretaceae	Tree	Bark, Leaf	Wound	Leaves are used to wound healing.
Terminalia chebula Retz.	Harra, Hartaki	Combretaceae	Tree	Fruits	Boils	Fruits of Harra along with mustard oils are applied on affected area.
Vanda tessellata (Roxb.) Hook. ex G. Don	Mai ki bagia, Rashna, Venda	Orchidaceae	Epiphytic herb	Root, Leaf	Inflammation, Cuts, Wounds	Leaf paste is applied on the affected area for immediate relief.
Vernonia cinerea (L.) Less.	Sahadevi, Sadodi	Asteraceae	Herb	Whole Plant	Eczema, Ringworm, Tumer	Leaf juice is useful for amobiasis, eczema, ring worm and other skin tumors.
Withania somnifera (L.) Dunal.	Aswagandha	Solanaceae	Shrub	Whole Plant	Common skin problems	Small pieces of plant are mixed with cow's urine and applied on the affected skin.
Woodfordia Fruticosa (L.) Kurz.	Dhawa	Lythraceae	Tree	Stem, Leaf	Scabies, Common skin diseases	Stems are pounded, mixed with curds and applied to scabies. Leaf paste are used many other skin diseases.
Xanthium indicum Koen.	Gokharoo	Asteraceae	Shrub	Fruits	Common skin problems	Fruit oil is applied externally on skin diseases for three days.
Zingiber officinale Roscoe.	Adrak, Ada	Zingiberaceae	Herb	Rhizome	Swollen skin	Rhizomes are ground into a fine paste and applied on the skin.
Ziziphus nummularia (Burm. f.) Wight & Walk.-Arn.	Jharbery	Rhamnaceae	Tree	Leaf	Boils, Wound, Cut	Leaf paste is applied on boils, wounds and cuts.

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