



Ethnobotanical Plants used for the treatment of Skin Ailment in North Maharashtra region, Maharashtra, India

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ABSTRACT

Tribes are known for their close proximity with the nature all over the world. They use natural resources as part of their survival while protecting these as part of their duties and obligations. Thus the concept of nature-man-spirit is very ancient as both biological diversity and cultural diversity are directly related to the origin of many tribes in India. The present authors investigated 46 plant species for skin diseases belonging to 30 families. The knowledge and wisdom of aborigines of this region will be certainly helpful for human welfare.

Key words : Ethnobotany, Skin Ailment, North Maharashtra

INTRODUCTION

The state of Maharashtra is about 800 Km. east-west and 700 Km. north-south, an irregular dentate pentagon, lying between 22° 1' - 16° 4' north Latitude and 72° 6' - 80° 9' East Longitude, having an area of 307762 Sq. Km. The North Maharashtra region is also known as Khandesh. It is limited by Madhya Pradesh and Gujarat. The main river of this region is Tapi, which is started its flowing from Multai of Madhya Pradesh. The valley of Tapi lies on the North Maharashtra. They constitute uniform system of the Tapi lying to the North Maharashtra. The North Maharashtra region consists of three districts Jalgaon, Dhule and Nandurbar. Nandurbar district has 70 % population belongs to tribal community. They are Padvi, Tadvi, Bhill, Mavchi, and Pawara. These aborigines are living in Satpuda Mountain and depend on plants for their food, shelter, medicine and other requirements. They used plants and plant parts for various ailments from their forefathers.

MATERIALS AND METHODS

Extensive as well as Intensive ethnobotanical forays were conducted during the year 2016-2018 visits were paid in different seasons encompassing every nook and corner of the North Maharashtra region. The information on

plants used for treating skin disorders of folklore origin were obtained from local medicine men and elderly people whose empirical knowledge was respected by everyone in the area were interviewed. After obtaining their consent, information regarding their knowledge of medicinal plants is recorded with the help of questionnaire-based interviews, open-ended field discussions and also by observation of their actual treatment practices. Data on local name of folk medicinal plants, parts used method of preparation and dosages recommended were recorded for each medicinal claim. Botanical specimens of all folk medicinal plants were collected, identified and deposited at the herbarium of the Department of Botany, P S G V P Mandal's Arts, Science and Commerce College, Shahada, Dist- Nandurbar, Maharashtra. Herbarium specimen were prepared using flora of Dhule and Nandurbar District by Patil (2003), Kshirsagar and Patil (2008) and state/regional floras by Cooke (1958) Singh and Karthikeyan (2000 and 2001) etc.

Enumeration:

- 1) *Acacia leucophloea* (Roxb) Willd.,**
Family- Mimosaceae
Local Name -Hivar, Shamdi.
The bark paste is applied for scabies and itchy skin.
- 2) *Alangium salvifolium* (L. f.) Wang. ,**
Family -Alangiaceae
Local Name -Akkal, Akali, Akkul, Aklad, Budryakkal.
The leaves are used for the treatment of leprosy, gastric ulcers, wound healing and scabies.
- 3) *Aloe vera* L.,**
Family- Liliaceae
Local Name- Korphad.
The aloe gel is applied on burn skin, wrinkles, stretch marks and pigmentation.
- 4) *Alstonia scholaris* (L.) R.Br.,**
Family- Apocynaceae
Local Name - Saptaparni.
The leaves and the latex are applied externally to treat tumors and moles.
- 5) *Argemone mexicana* L.,**
Family- Papaveraceae
Local Name -Pivla- dhotra.
The pounded seeds mixed with mustard oil and applied externally to treat itchy skin.
- 6) *Azadiracta indica* Juss.,**
Family- Meliaceae
Local Name- Neem.
Neem oil is applied on burn skin, rashes, and infected skin. Leaf extract is applied on boils and blisters. The paste of bark is applied on infected skin like melasma.
- 7) *Boswellia serrata* Roxb. ex. Coleb.,**
Famil -Burseraceae
Local Name -Salai, Dhupali, Goradu, Sayphal.
A paste made of the gum resin, combined with coconut oil or lemon juice is applied to indolent swellings, ringworm, scabies and psoriasis.
- 8) *Butea frondosa* Koen.. Roxb.**
Family- Fabaceae (Papilionaceae)
Local Name- Pivala
The seeds are crushed with coconut oil and applied in ringworm and hives.
- 9) *Butea monosperma* (Lamk.) Taub.,**
Family -Fabaceae (Papilionaceae)
Local Name -Palas, Khakra, Pahav, Palvho, Payas.
The seeds are ground into a paste with honey, are used for their antifungal and antibacterial properties. The seed paste, mixed with lemon juice, are used in actinic keratosis and wounds
- 10) *Butea superba* Roxb.,**
Family- Fabaceae (Papilionaceae)
Local Name - Palasvel.
The seed paste is applied on burn and itching skin.
- 11) *Cadaba sepiaria* L.,**
Family- Capparidaceae
Local Name -Karand-Pacholi, Karanj- pachal.
The paste of leaves is applied on skin to cure eczema.
- 12) *Calendula officinalis* L.,**
Family -Asteraceae (Compositae)
The flower are crushed into a paste, the paste is applied on face for skin fairness.
- 13) *Callicarpa tomentosa* (L.) Murr.,**
Family- Verbenaceae
Local Name - Aisar, Hesar.
An extract of the bark is used in the treatment of skin diseases like blister.
- 14) *Calophyllum inophyllum* L.,**
Family -Clusiaceae (Guttiferae)
Local Name - Undi.
The bark is used to treat orchitis.

15) *Calotropis gigantea* (L.) R.Br.,

Family - Asclepiadaceae

Local Name –Rui, Ruchki.

The latex mix with turmeric powder and boil with Sesame oil then kept for normal temperature, and then apply this paste on skin diseases. The young leaves are slightly warm and kept on swelling.

16) *Calotropis procera* (Ait.) R.Br.,

Family- Asclepiadaceae

Local Name-Rui, Ruchki.

The bark and root bark decoction is used for parasitic infections including elephantiasis and worms. The young leaves are slightly warm and kept on swelling.

16) *Cassia alata* L.,

Family -Caesalpiniaceae

Local Name-Shimai-agase.

The seeds are crushed with water and made in to a paste. The paste is effective in acne and ringworm. The leaf paste also applied in ringworm.

17) *Cassia fistula* L.,

Family -Caesalpiniaceae

Local Name - Bahava

The ripe fruit paste is applied on skin rashes.

18) *Cassia tora* L.,

Family - Caesalpiniaceae

Local Name –Tarota, Dukkarsheng, Powadya.

The seeds and leaves paste is used to treat melasma.

20) *Centella asiatica* (L.) Urb.,

Family -Apiaceae

Local Name -Brahmi.

The paste of entire plant or leaves for treating itchy skin and heal wounds.

21) *Crotalaria retusa* L.

Family - Fabaceae (Papilionaceae)

Local Name - Khulkhula, Ghagri.

The leaves are crushed with Coconut oil and the mixer applies in scabies.

22) *Crotalaria verrucosa* L.

Family - Fabaceae (Papilionaceae)

Local Name- Khulkhula, Tirat.

The roots decoction is used to cure cold store. The seed gum and flower paste is applied in scabies.

23) *Curcuma longa* L.,

Family- Zingiberaceae

Local Name - Halad.

The paste of rhizome is applied near about all types of skin diseases. The rhizome powder paste also applies on face for fairness of skin.

24) *Desmodium dichotomum* (Willd.) DC.,

Family - Fabaceae (Papilionaceae)

Local Name - Chikta.

The seeds are crushed with Mustard oil, and then slightly warm paste is applied on wounds and skin diseases.

25) *Echinops echinatus* Roxb.

Family -Asteraceae (Compositae)

Local Name - Ukattya, Ukharya, Utanti.

The powdered roots are applied to wounds in order to destroy maggots.

26) *Entada rheedei* Spreng

Family- Mimosaceae

Local Name - Garud vel.

The seeds are crushed into a paste, it is cure scabies and itching skin.

27) *Euphorbia heyneana* spren.

Family- Euphorbiaceae

Local Name -Lahan Nayti.

The leaves have anti-fungal properties. The leaves powder or paste cures wounds and fungal skin diseases.

28) *Hemidesmus indicus* (L.) R. Br.,

Family- Apocynaceae

Local Name - Anantmul , Dudhali, Dudhwel, Umzali.

The root or leaves paste is applied on burn skin.

29) *Holigarna arnottiana* Hook.f.

Family- Anacardiaceae

Local Name - Hulgeri bibbo.

The seeds are crushed into a paste and the paste is applied on scabies and worms.

30) *Ipomoea carnea* Jacq. Subsp. *fistulosa*.,

Family - Convolvulaceae

Local Name -Besharmi, Nilajari, Chandar- pan.

The leaves or flower paste is applied in scabies and ringworm.

31) **Hydnocarpus pentandrus (Buch.Ham.) Oken,**
Family - Flcourtiaceae (Achariaceae)
Local Name - Kadu -kavath.
The fruit pulp apply on skin in leprosy and skin conditions.

32) **Lactuca remotiflora DC**
Family - Asteraceae (Compositae)
Local Name - Pithari.
The latex is applied on skin to cure scabies, hives and ringworm.

33) **Lawsonia inermis L.,**
Family-Lythraceae
Local Name- Mehandi, Mendhi.
Leaf paste is applied on burning skin and impetigo.

34) **Lepidagathis mitis Dalz.,**
Family- Acanthaceae
Local Name - Gundra.
The flower ash mixed with coconut oil and used for external application for inflammation, wound healing and itchy skin affections.

35) **Leonotis nepetifolia (L.) R. Br.,**
Family - Lamiaceae (Labiatae)
Local Name-Dipmal, Fungana.
The flowers are cooked in an infusion which is drunk to treat itches and skin diseases.

36) **Litsea glutinosa (Lour.) C. Robinson.,**
Family - Lauraceae
Local Name -Maidalkadi
The pounded seeds are applied externally against burn skin.

37) **Merremia emarginata (Burm.f.) Hall.f.,**
Family - Convolvulaceae
Local Name- Undirkani
The entire plant paste is applied in blister, hives and eczema.

38) **Mitragyna parivifolia (Roxb.) Korth.,**
Family -Rubiaceae
Local Name -Kalam, Kolamba, Kolam, Konba, Koham.
The bark and roots paste are used to treat burning sensation of skin.

39) **Pentapetes phoenicea L.**
Family - Sterculiaceae
Local Name - Dupari
It is a component of a multi-herbal traditional medicine used for treating exfoliative dermatitis type of drug reaction.

40) **Pongamia pinnata (L.) Pierre. ,**
Family - Fabaceae (Papilionaceae)
Local Name - Karanj
Seeds are made into a paste and paste is used to cure psoriasis and melasma. Seed oil also used to cure ringworm.

41) **Rademachera xylocarpa (Roxb.) K.Schum.,**
Family- Bignoniaceae
Local Name -Kharshing, Kadshing
The resin of this plant applies for the treatment of skin diseases, such as moles and blisters.

41) **Rhinacanthus nasutus (L.) Kurz.,**
Family -Acanthaceae
Local Name - Gazkarn
The roots and leaves are applied externally as a remedy for certain skin disorders such as ringworm, eczema, scurf and herpes.

42) **Schleichera oleosa (Lour.) Oken.,**
Family - Sapindaceae
Local Name - Kusum, Kosimb, Kuhum, Kathara, Khatamba.
The seed oil is applied externally to cure itching. The bark is used against leprotic ruptures, skin inflammations and ulcers.

43) **Thespesia populnea (L.) Soland. Ex Corr.,**
Family - Malvaceae
Local Name - Bhendi
The leaf sap and decoctions of most parts of the plant are used externally to treat various skin diseases. Local healers used the milky juice for skin diseases like leucoderma.

44) **Ventilago denticulata Willd.,**
Family - Rhamnaceae
Local Name - Adsisi, Archhichhi, Arshishi, Aswel.
The stem bark powder mixed with coconut oil and applied to skin diseases, such as itch and cutaneous eruptions. Bark powder is used for injuries.

45) **Zingiber purpureum Rosc.**
Family- Zingiberaceae
Local Name - Malbari haldi
The rhizome powder mixed with mustard oil and applied in scabies.

DISCUSSION

Skin is the outer most layer of all living organism. It protects the internal parts of the body against various pathogens and changes of environment. Skin diseases

are common ailment and it effects in all ages. Skin diseases such as rashes, viral infections, bacterial infections, fungal infections etc. are commonly found in peoples (Tabassum and Hamdani, 2014). Skin health is fundamental to entire health. It is susceptible to microbes that influence human health. Plants have traditionally served as man`s important weapon against pathogens (Panda *et al.* 2016). Allopathic medicines are available for skin diseases but sometimes side-effects are observed. The aborigines of North Maharashtra usually used plant and plant parts for skin diseases for long time. These plants have great potential to cure skin diseases without side-effects. A total 46 plant species belonging to 30 families are reported, seven plant species belonging to the family Fabaceae (Papilionaceae) with four genera, three plant species each belonging to the family Caesalpiniaceae and Asteraceae (Compositae), two plant species each of the families Mimosaceae, Apocynaceae, Asclepiadaceae, Acanthaceae, Convolvulaceae and Zingiberaceae and single plant species of the twenty one families useful for skin diseases. The entire plant, root, bark, leaves, flower, fruit and seed are the parts useful for skin diseases. The members of family Fabaceae (Papilionaceae) are dominant with seven species of four genera i.e. *Butea*, *Crotalaria*, *Desmodium* and *Pongamia* for skin diseases. Further, pharmacological research is required to evaluate biochemical constituent such as lipids, alkaloids, tannins, resins, proteins, anti-oxidants, polysaccharides, essential oils etc. for the benefit of mankind.

Conflict of Interest

The author declares that there is no conflict of interest.

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