



## Study of Medicinal Plants Used in Dermatological Problems with Special Reference to Sahariya Tribe of Shivpuri District of Madhya Pradesh

## KEYWORDS

Ethno-botany, Taxonomy, Dermatology

## Ramdayal Jatav

Research scholar Govt. Narmada P.G.College,  
Hoshangabad, M.P.

## Rakesh Mehta

Department of Botany, Govt.M.G.M. P.G.College, Itarsi  
M.P.

**ABSTRACT** Medicinal plants are a rich source of active ingredients in gradients of herbal medicine and provide a safer and cost effective way to treat diseases. An ethno-botanical survey was carried out among the ethnic groups of Shivpuri District. The Sahariya tribal communities of Chitorikala (Satanwara) have natural knowledge about medicinal plants and its uses. Therefore, we have done ethnobotanical survey in this area. In this present investigation, it has been observed that the tribal's use 50 valuable plant species belonging to 35 families. These plants were identified and documented in this paper. Botanical name, local name, family and plant part used by the local tribal people for different human ailments were recorded. The common diseases treated by the herbal practitioner were asthma, digestive problem, skin diseases and diabetes. Ethno dermatological data was collected from the Satanwara people of Shivpuri district between February 2011 to August 2011. The data were gathered from 10 randomly selected traditional healers with the aid of a structural questionnaire.

## Introduction

Many plants have been used in traditional medicine for several thousand years. During the last few decades there has been an increasing interest in the study of medicinal plants and their traditional use in different parts of India. A vast knowledge of how to use the plants against different illnesses may be expected to have accumulated in areas where the use of plants is still of great importance.

Indigenous people throughout the world possess knowledge of their surrounding flora and fauna. Tribal people are the ecosystem people who live in harmony with the nature and maintain a close link between man and environment. Plants are the basis of life on earth and are center to people live hoods. Moreover, an increased emphasis is being placed on possible economic benefits especially of the medicinal use of tropical forest products instead of pure timber harvesting (Pimbert and pretty 1995). During last few decades there has been an increasing in the study of medicinal plants and their traditional use in different parts of the world (Lev, 2006).

Dermatology is the branch of medicine dealing with the skin and its diseases, a unique specialty with both medical and surgical aspects. A dermatologist takes care of diseases, in the widest sense, and some cosmetic problems of the skin, scalp, hair, and nails.

A ethno-dermatological survey was undertaken to collect information from traditional healers on the use of medicine plants in Shivpuri district of M.P. during February 2011 to August 2011. The indigenous knowledge of local traditional healers and local tribe and the native plants used for medicinal purpose were collected through questionnaires and personal interview during field trips.

In the past, there have been increase in the study of plants and their traditional use in different parts of the world. Plants have been a major source of medicines and the presence of plant secondary metabolites has been implicated for most plants therapeutic activities ( Gill 1992; Vesilada, 2005; Aibimu, 2006 ; Iduet al 2009). The tropical forest of Shivpuri has been described by Kaushik (1984). Nature has bestowed on us a very rich botanical wealth and a large number of diverse plants grow in different parts of the continent (Gbbile 1985).

## Material and Methods

Study area-The study was carried out in Chitorikala and Satanwara village in the Shivpuri district M.P. The area is situated between latitude 24.60 to 25.60 North and longitude 77.00 to 77.00 East (Fig: 1). the district is situated 521.5 meters above sea level. rict Map



## Ethno dermatological Information

Ethno dermatological data were collected between February 2011 to August 2011, using a structured questionnaire. 10 randomly selected traditional healers/ Herbalists were interviewed regarding the type of plant used for skin treatment and beautification. The local plant names, useful plant part, method of preparation, mode of application, purpose of application and duration of application were document.

Species Identification- Some of the plant specimens were identified by the herbalists and later confirmed with the help of "Taxonomy of plants" by Sexena and Sexena. Plant species were also identified using Kaushik, J.P. (1996), (1983), Sati (2004), (2001) and Jain (1978).

## Table-01

## Plants used for skin diseases

S. No.	Botanical Name	Local Name	Family
01	Acacia catechu	Khair	Leguminosae
02	Achyranthes aspera	Apamarg	Amaranthaceae
03	Adhatoda vasica	Adusa	Acanthaceae
04	Aegle marmelos	Bel	Rutaceae
05	Allium sativum	Lahsun	Liliaceae

06	Aloe verra	Garvapat	Lilaceae
07	Amaranthus spiniosus	Katali	Amaranthaceae
08	Ananas comosus	Ananas	Bromeliaceae
09	Arachis hypogea	Mungphali	Fabiaceae
10	Argemone Mexicana	Peeli kateri	Papaveraceae
11	Azadiracta indica	Leem	Meliaceae
12	Bauhinia variegeta	Kachnar	Caesalpiniaaceae
13	Bomber ceiba	Semar	Bombacaceae
14	Brassica oleracea	Bandgobhi	Brassicaceae
15	Butea monosperma	Chhola, Teshu	Fabaceae
16	Calotropis proccera	Aak	Asclepiadaceae
17	Carica papaya	Papita	Caricaceae
18	Cassia tora	Puanr	Caesalpinaceae
19	Citrus paradisi	Angoor	Rutaceae
20	Citrus sinensis	Santara	Rutaceae
21	Cucos nucifera	Nariyal	Arecaceae
22	Cucumis sativus	Kaddu	Cucurbitaceae
23	Curcuma angustifolia	Haldi	Zingiberaceae
24	Cynodon dactylon	Hari doob	Graminae
25	Datura metel	Kala Datura	Solanaceae
26	Daucus carota	Gajar	Apiaceae
27	Ficus benqaalensis	Bat	Moraceae
28	Ficus recemosa	Gular	Moraceae
29	Ficus religiosa	Pipal	Moraceae
30	Gloriosa superb	Calihari	Liliaceae
31	Jatropha gossypifolia	Ratanjot	Euphorbiaceae
32	Lantana whitiana	Bhoomdi	Verbanaceae
33	Lycopersicon esculentum	Tamatar	Solanaceae
34	Malcus pumila	Sebphal	Rosaceae
35	Mangifera indiaca	Aam	Anacardiaceae
36	Mentha piperita	Piparment	Labiatae
37	Mimosa pudica	Laiwanti	Mimosaceae
38	Monordica charantia	Karela	Cucurbitaceae
39	Musa sapientum	Kaila	Musaceae
40	Phyllanthus emblica	Avla	Euphorbiaceae
41	Ricinis communis	Arandi	Euphorbiaceae
42	Santalum album	Chandan	Satalinaceae
43	Shorea robusta	Saal	Dipterocarpaceae
44	Sphaeranthus indicus	Gorkhmundi	Compositae
45	Swertia chiraita	Chiraita	Gentianaceae
46	Tamarindus indica	Emli	Leguminosae
47	Terminalia bellarica	Baheda	Combretaceae
48	Terminalia cattapa	Badam	Combretaceae
49	Terminalia chebula	Harra	Combretaceae
50	Zea mays	Makka	Poaceae

Arge-mone Mexicana	Latex	Latex of the plant is applied topically in the site of boils.
Azadirecta indica	Leaves	Leaf extract is applied on face twice daily against pimple and wound, bark powder used in boils.
Bauhinia variegeta	Buds and Root	It is used to cure asthma and ulcers. The buds and roots are good for digestive problems and skin diseases.
Bomber ceiba	Root	Root paste is applied externally in case of pimple.
Brassica oleracea	Leaves	Paste of leaf is used to treat on skin diseases.
Butea monosperma	Flower	Flower mixed are used on boils.
Calotropis proccera	Latex	The latex is used on infected diseases area.
Carica papaya	Fruits	A paste of ripe papaya fruits with on unflavored gelatin and egg is used as a facial mask.
Cassia tora	Leaves	Fresh leaves are pounded into a paste and are applied in case of ringworm.
Citrus paradisi	Leaves	The squeezed leaf extract mixed with shea-butter and olive oil is used against skin wrinkle.
Citrus sinensis	Fruit	A fine paste of the blended fruit peelings with olive oil is used to remove blemisher form the skin.
Cucos nucifera	Fruit oil	The extracted fruit oil is applied to athlete's foot.
Cucumis sativus	Fruit	A large cucumber fruit with evaporated milk mixed with few drops of lime are used as a cleansing lotion.
Curcuma angustifolia	Tuber	The paste of the rhizome with few neem leaf pastes is applied on eczema.
Cynodon dactylon	Root	Root paste is applied externally to cure ulcers and boils.
Datura metel	Seed	Seeds are crushed and cooked in mustard oil. It is applied to cure scabies.
Daucus carota	Root tuber	A paste of large carrots boiled to soft and mashed with 2-3 table spoon of honey is applied to the skin to beautify it.
Ficus bengaalensis	Bark	Bark powder is used externally to cure scabies.
Ficus recemosa	Bark	Bark powder is used externally in case of pimples, itches and scabies.
Ficus religiosa	Leaves	Green leaves are pounded in water and the juice applied to treat scabies.
Gloriosa superba	Root and Tuber	Extract of whole plants is spasmolytic useful in leprosy.
Jatropha gossypifolia	Leaves	Leaf paste applied externally in skin diseases.
Lantana whitiana / Lantana camera	Leaves	The leaf is ground with Cipadessa baccifera root, leaf and bark & applied topically to treat Psoriasis skin diseases.
Lycopersicon esculentum	Fruit	2 table spoons of the juice plus 4 table spoons of evaporated milk is used to treat sun burns.
Malcus pumila	Fruit	1 table spoon of the juice with ¼ table spoons of lime juice is used to remedy wrinkle.
Mangifera indiaca	Fruit	Boiled 3 unripe fruit mashed with sheabutter to from a paste is used to treat skin rashes.
Mentha piperita	Fruit	The juice from the mint is topically applied twice daily to treat pimples.
Mimosa pudica	Leaves	Root and leaf infusion is applied on the wound.
Monordica charantia	Fruit	The mashed fruit with few drop mustard oil is topically applied to treat dry skin.
Musa sapientum	Fruit	A cream of mashed of banana with few drops lime and water is used to tone the skin.
Phyllanthus emblica	Leaves	Leaf power and oil mixed together and the paste is applied to cure burn wound.

**Table-02**  
**Enumeration of plants commonly used by the Chitorikala (Satanwara) people for skin diseases.**

Botanical Name	Parts Used	Methods and Uses
Acacia catechu	Leaves	Paste of leaf mixed with mustard oil is applied externally in case of skin diseases. And flower powder used in ear diseases.
Achyranthes aspera	Leaves	Paste of leaf with onion is applied externally on the bitten site of dog and to cure skin diseases
Adhatoda vasica	Root and Leaves	Root paste used in wound and leaf extract has been used for treatment of asthma and skin diseases.
Aegle marmelos	Leaves	Leaf extracted is applied to treat wounds and skin diseases.
Allium sativum	Bulb	Extracted juice from the bulb mixed with olive oils is applied twice daily to skin diseases.
Aloe verra	Leaves	Flashy leaves used with Haldi powder in Skin disease.
Amaranthus spiniosus	Leaves	A paste of the leaf juice with a pinch of turmeric power is applied on the face twice daily against pimples.
Ananas comosus	Leaves and Fruit	The fruit and leaf juice with honey is rubbed on burn area and wrinkle.
Arachis hypogea	Seed	Mashed seed with milk and honey is used to remedy dry skin.

Ricinis communis	Seed	Seed paste is applied to treat skin cracks paste of leaves and flower is applied on leprotic wound.
Santalum album	seed	Seed oil applied for all kinds of Skin disease
Shorea robusta	Bark	Bark paste is used externally to cure cut, wound and ulcers.
Sphaeranthus indicus	Leaf, flower, seed	Leaf, Flower and seed are ground into paste and applied teat tropically to treat skin diseases.
Swertia chiraita	Whole plant	Dried whole plant, Roots, Stem and flower are used in leprosy and leucoderma.
Tamarindus indica	Bark	Dry bark powder mixed with oil is applied on burn wound; seed paste is applied externally to cure scabies.
Terminalia bellarica	Bark and root	The bark and root are grind & took extract, which is applied topically to treat unnecessary peelings on the skin diseases.
Terminalia cattapa	Leaves and bark	The powder of the leaves and bark mixed with Shea butter can be applied twice daily to remedy itching and rashes.
Terminalia chebula	Fruits	The fruits powder are used in old wounds and Skin disease.
Zea mays	Seed	A paste of the extracted starch diluted with vinegar water is used in treating diaper rash.

### Result and discussion

The present investigation comprises 50 plants belonging to 35 families for each specimen botanical name, Local name, Family, Parts used method of preparation, administration and ailments treated are given in the table.

The use of traditional medicine for dermatological condition is not uncommon among the Satanwara tribal people of Shivpuri district (M.P.). It was observed that most of the medicinal plant species used were collected from within the vicinity of the traditional healers, while the ones not readily available were either purchased from the market or collected from the forest, this is however not in agreement with similar studies conducted by (Nisha and Sivadasan 2007). Common health ailments in the study area were skin diseases problems. The tribal people of western Madhya Pradesh of India used 13 plants for the treatment of Jaundice (Samvatsar and Diwanji, 2000). Several studies have enumerated the plants used for wound healing and skin diseases in various parts of the world (Chah et al., 2006; Ayyanar and Ignacimuthu, 2005; Harsha et al., 2003).

Nagariya A.K, Meena A.K, Jain D, Gupta B.P, Yadav A.K., Gupta M.R.(2010). Reported a review on the medicinal plants used in the healing of skin diseases in different regions of India. As per this study it was stated that different plant species

are found to be useful in the treatment of skin diseases like eczema, psoriasis, rashes, leprosy, wound, scabies and dandruff. Number of plants extracts, decoctions and pastes are helpful for curing of skin diseases. They compiled the uses medicinal herbs as traditional remedies in treating various skin problems related to different regions of India.

The parts of the plant used for medicinal purpose are leave, root, stem, fruits, the complete aerial parts the whole plants barks and flower. However, leaves were found most frequently used parts. The implication of this observation is that the medicinal plants used by the healers were cultivated consciously or unconsciously as home garden plants within their vicinity. Tree and herbs were the most dominant growth forms for remedy preparation in the study area.

Tribal population has good knowledge about the use of many plants. Traditional healers, use their eyes, skin, nose and hands to diagnose the diseases.

The way of diagnose is interesting because they live in interior areas and lack the use of modern scientific equipment for treatment they however treat diseases using medicinal plants (Santhya et.al 2006). The finding of this study revealed that most of the remedies were prepared from a single plant sources but combination with other ingredients (honey, olive oil, shed butter) and few common plants. The administrations of the plant were all tropical in the form of juice, paste and ointment.

### Conclusion

The result of the present study revealed that wild plants and their part are widely used for skin diseases in the study village of Satanwara and Chitorikala of Shivpuri district (M.P.) local people have remarkable detailed knowledge of plant species identification and characteristic. As more than 60 percent of plant species useful for skin diseases treatment appear to be restricted to shaded forest habitats in the forest. The anthropogenic unsustainable activities such as deforestation, habitat destruction, urbanization etc. is against the forest resources.

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