



## Indigenous Knowledge of using Medicinal Plants in Treating Skin deceases by Tribal's in Central Narmada Valley of Madhya Pradesh (India)

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### ABSTRACT

*The present study mainly focuses on the study of Indigenous Herbal Remedies used to cure of skin by Tribal's from Central Narmada Valley of Madhya Pradesh. The present study is based upon the ethnobotanical studies on four tribal communities of Bhil, Bhilala, Gond and korku. Tribal healers utilize several local available plants in ethno-medicinal practices. Present paper reports the use of 29 species of plants variously used by the tribal communities incurring skin diseases.*

**Key words:** Medicinal Plants, Central Narmada valley, Skin disease, Tribal's,

### INTRODUCTION

India has century's old heritage of medicinal plants and herbal medicines for curing human illness. Medicinal plants form the only easily accessible health care alternative for the most of our population in rural and tribal areas. The life, tradition and culture of tribal's remained almost static since last several hundreds of years. The knowledge accrued by the tribal's through generation's shows the in-depth understanding of the forest resources. The interaction of tribal people with the nature can normally be seen in Central Narmada valley.

Central Narmada valley is situated between Vidhya and Satpura hills of Central India. This region lies between 21°54 to 22°59E longitudes and 76°46 to 78°42 N latitude The average height of this region is ±331 meters form sea level. This region has rich biodiversity and two tribal communities residing therein. These tribal communities are Bhilala and Gond. These tribal communities live close to nature; the tribal people have acquired knowledge on the natural resources that exists around their habitat in the forest ecosystem. These people have unique knowledge on use of different plant parts and their use in cure general ailment. These communities are using different formulations made out of plant parts in their primary health care. Keeping in view of vastness of forest area and richness of tribal knowledge, systematic efforts have been made to document the ethnobotanical knowledge before it vanishes unknown. Review of available literature on Madhya Pradesh on traditional health care shows several works on ethnomedicine such as Samwatsar [1] , Shukla *et al* [2] and Abhyankar and Upadhyay [3].The present study is subjected to scientific study mainly focuses on use of herbal plants in cure of skin by Bhil,Bhilala , Gond tribeand Korku of Central Narmada region of Madhya Pradesh.

### MATERIALS AND METHODS

The present study is the outcome of exhaustive field survey under taken for the period of two year from 2009 to July 2011. In the selected villages of Bhil, Bhilala, Gond and Korku tribes of Central Narmada region to record floristic diversity and their ethnomedicinal uses. Field trips were conducted in Hoshangabad, and Sehore districts. The tribal villages were surveyed through periodical tours in tribal localities. Special attention was paid to record information from local voids, ojhas and traditional herbal healers. The information was documented involving field study by contacting and interviewing voids, ojhas for plants used to cure of Skin.

Knowledgeable persons of tribal communities and traditional herbal healers were contacted and information was collected through interviews, observations and discussions held during field survey. The discussions revealed local name of species, plant part used by traditional healers and tribal communities.

The species were scientifically identified with their botanical names and author index. The identified record plants from local taxonomist and herbarium prepared were further verified with flora. The information recorded in field was further screened in laboratory as per work pertaining to Indian ethnobotany and plants recorded by Chopra *et.al.* [4], Jain [5,6], Rai *et al.* [7] to distinguish the information already known, reported and published by taxonomists and ethno-botanist and little known and hither unknown and unpublished work. The information recorded in the present investigation is presented below.

## RESULT

The study that a total of 29 species belonging to 26 families and 29 genera were identified. For each species the botanical name, family name, local name, plant part used, habit, preparation of remedy and usage were recorded. In the present study was used for the treatment of skin diseases. The results of the present study provide evidence that medicinal plants continue to play an important role in the healthcare system of this tribal community.

### Enumeration:

1. ***Allium sativum* L. Local Name - Lahsoon, (Liliaceae)** Extracted juice from the bulb is applied twice daily to athletes. (Habit: Herb).
2. ***Amaranthus spinosus* L. Local Name - Cholai (Amaranthaceae)** The paste of the leaf juice with a pinch of turmeric powder is applied on the face twice daily for curing pimples.(Habit: Herb.).
3. ***Anana scomosus* L., Local Name - Sitaphal (Broeliaceae)** The fruit and leaf juice heated over boiling water with honey is rubbed on burn area and wrinkle.(Habit: Small tree).
4. ***Arachis hypogeal* L., Local Name - Moong phali (Fabaceae)** Mashed peanut with butter and honey is used as remedy of dry skin. (Habit: Herb).
5. ***Argimon maxicana* Linn., Local Name - Satyanashi (Papavaraceae)** Latex is applied on skin against ringworm (Habit: Herb).
6. ***Aristolochia indica* L., Local Name - Ishwarmul (Aristolochiaceae)** A Paste of leafs with coconut oil applied on skin infected area.(Habit: Herb).
7. ***Azadirachta indica* Juss., Local Name - Neem (Amaranthaceae)** The mixture of leafs, barks and coconut oil applied for all skin disease (Habit:Herb).
8. ***Brassica oleracea* L., Local Name - Sarso (Brassicaceae)** Decoction of the leaves is used to treat an open wound on skin. (Habit:Herb).
9. ***Calotropis procera* Br., Local Name - Madar ( Asclepiadaceae)** Latex direct applied on infected skin areas. (Habit: Shrub).
10. ***Careya arborea* Roxb., Local Name - Kumbhi (Barringtoniaceae)** A Paste of bark with coconut oil area applied on infected areas of skin. (Habit: Tree).
11. ***Carica papaya* L., Local Name - Papita (Caricaceae)** The latex is applied to treat ringworm and intcheing. (Habit: Shrub).
12. ***Cassine glauca* (Rottb.) Ktze, (Celastraceae)** The Paste of whole plant parts are applied on skin against wounds and cuts. (Habit: Shrub).
13. ***Citrus reticulate* Blanco., Local Name - Neebu (Rutaceae)** The fruit juice mixed with olive oil is used to manage rough skin. (Habit: Shrub).
14. ***Clerodendrum viscosum* Vents., Local Name - Pumiaya (Verbinaceae)** The Paste of leaf is applied against all type skin diseases. (Habit: Herb).
15. ***Cucumis sativus* L., Local Name - Khira (Cucurbitaceae)** Cucumber fruits with evaporated milk mixed with few drops of lime are used as a cleaning lotion. (Habit: Climber).
16. ***Curcuma angustifolia* L., Local Name - Haldi (Zingiberaceae)** The Paste of the rhizome with a 50% of Neem leafs powder is applied on the skin against eczema and psoriasis.(Habit: Herb).
17. ***Daucus carota* L., Local Name - Gajar (Apiaceae)** A Paste of root with honey is applied on skin against face pimple. (Habit: Herb).
18. ***Leea alata* Edgew., Local Name - Dokarbel (Leeaceae)** The tuber Paste mixed with Neem bark and coconut oil applied on all skin infection (Habit: Climber).
19. ***Lycopersicon esculentum* L., Local Name - Tamatar (Solanaceae)** The juice of the fruit with milk is used to treat sun burn. (Habit: Herb).

20. ***Mangifera indica* L., Local Name – Aam (Anacardiaceae)** Boiled unripe fruit mashed with butter is used to treat skin rashes. (Habit: Tree).
21. ***Mentha piperita* L., Local Name – pudhina (Labiataea).** The leaves juice is topically applied twice daily to treat of pimples. (Habit: Herb).
22. ***Momordica charantia* L., Local Name - Karela (Cucurbitaceae)** The mashed fruit with few drops of vegetable oil is topically applied to treat dry skin.(Habit: Climber).
23. ***Oroxylum indicum* (L.) Venten., Local Name - Sheonak (Bignoniaceae)** Root and bark Paste used for Burning maturation. (Habit: Tree).
24. ***Plumbago zeylanica* L., Local name - Safed chitrak (Plumbaginaceae)** A Paste of leafs with Neem bark and coconut oil applied on skin infected area (Habit: Herb).
25. ***Soyamida ferbrifuga* (Roxb.) Juss, Local Name - Rohni (Meliaceae)** The paste of bark is used for skin against wound. (Habit: Tree).
26. ***Spheranthus indicus* L., Local Name – Gorakhmundi (Asteraceae)** Dry powder of whole plant mixed with cow milk applied on wound on skin. (Habit: Herb).
27. ***Terminalia cattapa* L. Local Name - Badam (Combrataceae)** The powder of the leaves and bark crushed with milk can be applied twice daily for itching and rashes. (Habit: Tree).
28. ***Ventilago denticulate* Roxb., Local Name – Kevti (Rhamnaceae)** The Paste of leaf is used in all type skin disease. (Habit: Climber).
29. ***Zea mays* L., Local Name - Makka (Poaceae)** The Paste of grains extracted starch diluted with is treating diaper rash. (Habit: Herb).

## DISCUSSION

The world health organization estimates that about 80% of the population of most developing countries relies on herbal medicines for their primary healthcare need. The finding of the study envisage that the herbal medicine have great potentiality to care different kind of skin diseases. The indigenous rural community depends on traditional healthcare system. About 80% of human population in India is using herbal medicine to care different kind of diseases Farsworth [8]. Some species used by the tribal's of central Narmada valley are also used by the tribals from other places as it is evident from earlier works of Khatri, *et. al.* [9] is reported the Traditional knowledge on ethno-medicinal uses prevailing in tribal pockets of Chhindwara and Betul Districts. Arun jain *et.al.* [10] observed Ethnobotanical Studies on Plant Resources of Tahsil Multai, District Betul. An ethnobotanical study of medicinal plants of Rewa district Madhya Pradesh by Purohit *et al.* [11] Ehnobotanical studies of some medicinal plants used in skin diseases from Raath (Pauri) Garhwal Himalaya The tribal people of Western Madhya Pradesh of India used some plants for the treatment of skin problem Samvatsar and Diwanji, [1]. Plant such as *Asparagus racemosus*, *Azadiracta indica*, *Argimon maxicana* and *Datura metel* are used in similar purpose in Uttar Pradesh [12-14]. Kanitribals in Tirunelveli Hills of Tamil Nadu were using 14 plants for the treatment of skin problems [15]. Tribals of Uttar Karnataka district used 52 herbal preparations from 31 plants for skin diseases, a nearest state of Tamil Nadu [16]. People of Eastern Cape Province, South Africa used 38 plant species for the treatment of wounds [17]. Ethnobotany of medicinal plants used by assamese people for various skin ailments and cosmetics Saikia *et al* [18]. Ethnobotanical study of skin treatment uses of medicinal plants of Bihar Upadhyay *et al.* [19].

The information generated from the present study regarding the medicinal plant use by the Bhil, Bhilal, Gond and Korku tribes need a thorough phyto-chemical investigation including alkaloid extraction and isolation along with few clinical trials. This could help in creating mass awareness regarding the need for conservation of such plants and also in the promotion of ethno-medico-botany knowledge within the region besides contributing to the preservation and enrichment of the gene bank of such economically important species before they are lost forever. Unsustainable use of land resources has serious negative effect on the flora of this region. Sometime, over exploitation of a particular species can also lead to the incidental disappearance of other non-targeted species. People of that region realize on ethnomedicine and in most problems they gone to local vaid, ojhas and traditional herbal healers because of the poor health care condition. There are a lot to be done in this promising field with the active support of village people so

that importance of these economically important plants could be rejuvenated for the benefit of our future generations and also need to improve health care condition.

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#### REFERENCES

1. Samwatsar S & Diwanji VB (2001). Plants used for skin disease cut, wound and bruises by tribles of western MP. *J Econ Tax Bot, Add serries*,12: pp 122-131
2. Shukla A.N., Shrivastav S. & Rawat A.K.S. (2010). An ethnobotanical study of medicinal plants of Rewa district Madhya Pradesh. *Indian journal of traditional knowledge* vol.9(1), pp 191-202.
3. Abhayanker R. and Upadhyay R. (2006) Ethno-medico-botanical observed on korku tribe of Kesla block of district Hoshangabad (MP), *Advances in Biological Sciences* Voi.-5 (5-8).
4. Chopra RN.Chopra IC, Handa KL, Kapur LD.(1982). *Indigenous Drugs of India*. Second edition (Reprinted) Academic Publishers, New Delhi.
5. Jain SK. 1991. *Dictionary of Indian Folk Medicines and Ethnobotany*. New Delhi: Deep Pub
6. Jain SK (edited). (1981). *Glimpse of Indian Ethnobotany*. New Delhi: Oxford and I.B.H Pub
7. Rai R, Nath V, Shukla, PK. (2004). Characteristics and Ethnobotanical studies on Primitive tribes of Madhya Pradesh" In Govils (edited) *Recent progress in Medicinal Plants*. Chapter Ethno- medicine and Pharmacognosy. New Delhi : Researcho Book Centre, p : 8 (37) : 543– 552
8. Farsworth NP, (1993). Ethnobotanical and future in drug development: the North American experience, *J Ethnopharmacol*, Vol.16; pp 93-97.
9. Nath V. and Khatri P. K. (2010). Traditional knowledge on ethno-medicinal uses prevailing in tribal pockets of Chhindwara and Betul Districts, Madhya Pradesh, India, *African Journal of Pharmacy and Pharmacology* Vol. 4(9). pp. 662-670, September, 2010
10. Dahare D. K. and Jain A. (2010). Ethnobotanical Studies on Plant Resources of Tahsil Multai, District Betul, Madhya Pradesh, India, *Ethnobotanical Leaflets* 14:694-705, 2010
11. Purohit VP,Silas RA & Gaur RD (1985). Ethnobotanical studies of some medicinal plants used in skin diseases from Raath (Pauri) Garhwal Himalaya, *J.Sci Res Plant Med*, 6; pp 39-47
12. Siddiqui MB, Alam MM and Husain W, (1989) Traditional treatment of skin diseases in Uttar Pradesh, India *J Econ Bot*, 43; pp 480-486
13. Singh KK & PrakashA (1996). Traditional medicinal plant therapy used for skin care by the tribal's of Uttar Pradesh, India, *J. Non Timber Forest Prod*, 3(1&2); pp 51-55.
14. Suseela Bai & Nesamoni (2005). Traditional treatment of Psoriasis, *J. Scott Res. Forum*, 1(1); pp 10-13.
15. Ayyanar, M. and Ignacimuthu, S. (2005). Traditional knowledge of Kanitribals in Kouthalai of Tirunelveli hills, Tamil Nadu, India. *Journal of Ethnopharmacology* 102: 246-255
16. Harsha, V.H., Hebber, S.S., Shripathi, V.and Hedge, G.R., (2003). Ethnomedicobotany of Uttat Kannada District in Karnataka, India-plants in treatment of skin diseases. *Journal of Ethnopharmacology* 84(1): 37-40.
17. Grierson, D.S. and Afolayan, A.J. (1999). An ethnobotanical study of plants for the treatment of wounds in the Eastern Cape, South Africa. *Jounal of Ethnopharmacology* 67: 327-
18. Saikia AP, Ryakala VK, Sharma P, Goswami P. bora U.(2005). Ethnobotany of medicinal plants used by assamese people for various skin ailments and cosmetics. *Journal of Ehtnopharmacology*.106:149-157.
19. Upadhyay O.P., Kumar K., Tiwari R.K. (1998). Ethnobotanical study of skin treatment uses of medicinal plants of Bihar. *Phytochemical society of Noth America*. Vol.36; pp 167-172.