

Ethnomedicinal Study of Plants Used in Skin Diseases at Niwari District of Madhya Pradesh, India

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Abstract: Skin diseases represent a significant global health burden, acting as the fourth leading cause non-fatal diseases burden worldwide. A total of 20 plants species belonging to families were found useful and here with described along with Vernacular name, parts used and mode of administration. These disorders and range from mild and self-limiting Conditions, such as acne and dermatitis, to Severe and chronic diseases like psoriasis eczema vitiligo and skin infections. The aetiology Skin diseases is multi-factorial, involving genetic pre disposition immune dysfunction, infection (bacterial, Viral, fungus and parasitic) environmental factors and lifestyle Influences. Clinical manifestations vary widely and may include itching redness, Scaling pigmentation changes pain and disfigurement, often leading significant psychological and social impact early diagnosis and appropriate. Management are essential to prevent complications and Improve quality of life. Increased awareness proper hygiene and access to dermatological care play a crucial role in the burden of skin diseases.

Keywords: Biodiversity, Skin diseases Ethno-botany Traditional medicine Niwari District.

1. Introduction

Skin diseases are conditions that affect the skins structure, appearance or function. The skin is the largest organ of the human body and acts as a protective barrier against infectious, chemicals and environmental damage. skin disorders can be caused by various factors such as infections (bacterial viral, fungal), allergies autoimmune reactions, genetic Conditions, hormonal imbalance, poor hygiene or environmental influences. These diseases may present with symptoms like itching, redness, rashes, pain, Swelling, dryness. Some skin diseases are temporary and mild while others can be chronic and significantly affect a person physical Comfort, mental health and quality of life. Early diagnosis proper treatment and preventive care are important to manage skin diseases effectively and to maintain healthy skin. Ethno-botanical studies have also revealed a wealth of information. about the traditional use of plants in treating various skin diseases. such findings point to the critical Mole preserving and understanding of preserving understanding indigenous knowledge, as it may hold the key to Unlocking new avenues for medical and ethno-botanical research. As human societies evolve in response to shifting environmental and social conditions, "the significance of indigenous Knowledge remains profound". As the field of

Human-plant Interaction continues to evolve, researchers, must remain vigilant in their efforts to protect the Intellectual Properly rights of Indigenous communities, ensuring that their traditional knowledge is not exploited without proper acknowledgment and consent. As the world faces the challenges of an aging population and the rise of chronic diseases, the insights gleaned from ethno-botanical research could prove invaluable. By Studying the cultural plants Utilization and its potential therapeutic properties, ethno-botanists. Can contribute to the development of new and more effective treatments, ultimately improving the lives of individual and communities, according to *Saxena et al (1982)*.The real world implication the medicinal knowledge found in these ancient texts has fostered a closer connection between human and plants resulting in the emergence of a Scientific discipline known as ethno-botany' both 'ethno-botany and ethno-medicine seek to understand traditional plant knowledge and link it to the overall health and advancement of human civilization. In central India, Niwari district is the 52 districts of Madhya Pradesh it is separating from Tikamgarh district of Madhya Pradesh. The total area of Niwari district covering 1,170sq.km. it is the smallest district of Madhya Pradesh with the population of approximately 404,807.



Figure 1: Dermatological conditions: A clinical overview for research



Figure 2: Dermatological conditions: A clinical overview for research

Common Symptoms of skin diseases→

- Nail changes
- Hair loss or dandruff
- Peeling of skin
- Swelling (inflammation)
- Dryness and Scaling
- Rashes
- Redness
- Itching
- Monkey pox
- Measles
- Chickenpox.

2. Review of Literature

Bhattacharje et al (1978) The world Health organization (WHO) has estimated That as many as 80% of the world population dependent on the traditional medicine for their primary health needs. According to **Akarm et al (2024)** 20 medicinal plant species worldwide are used in the traditional medicine as a treatment for skin diseases caused by bacteria, fungi and Viruses. various types of skin diseases are occurring, such as Acne, Dermatitis, Eczema ,Herbs, According to **(Kyndu et al 2022)**The ethno-medicinal plants which are used to treat skin diseases are safe, effective and inexpensive for the revival of traditional herbal medicine according to **Uysal.f. et al (2013)**Ethno-botanist from all over the world has been actively working to collect document of the indigenous medicinal plants. ethno-botanical studies on medicinal plants were done by various workers. **Jain et al(1991)** over the centuries, the people have experimented and made use of several plants. Importance of ethno-

medicines in the treatment of various human ailments is well recognized amongst these people. The study of human-plant relationship explores the direct connection between plants and people. While it is sometimes associated with economic botany or traditional medicine, each of these fields has a district focus. The study of Ethno-botany is not known from earlier times. So many researchers have separately done Ethnomedicinal work. Some as them viz, **Toledo (1987), Patton (1993) and Ghimire et al (2001)**. **Recently Townsend (1995) Ponet Johanson (1995), and folk (1990)** gave some information, about Ethno medicinal and Socio-cultural practices.The majority of Ethno-medicinal work have involved indigenous populations assuming that the indigenous environmental knowledge could play an important role for conservation (**Hanazaki et al 2000**) And **Bhattacharjee (2000)** has described nomenclature, distribution, of 560 medicinal plants from all over the world. **Maheshwari (2000)** has compiled a number of research reports on ethno botanical studies on folklore medicinal plants of Indian sub-continent. Herbal Indian medicine standardization, are discussed by **Kamboj (2000)**, medicinal plants of India, their distribution, resources and Ethno medicinal user of medicinal plants have been given by **Joshi (2001)**. Ethno-medicinal work has been done by **Arjariya et al (2005) (2009) (2010) (2012) (2013) (2014) (2015)** at Chhatarpur district of Madhya Pradesh.

Aims and Objective

The present work focused on Ethno-medicinal and uses of the plants During the study period work have been done by Questionnaire method.

- Taxonomic identification of plants.

- To Study which diseases is very Common in Niwari district.
- Survey of disease in the study area by Questionnaire.
- Ethno-medicinal importance of plant parts in different Skin diseases.

3. Methodology

The study was conducted during 2024-2026 cover the area of major tribes' villages to identify the plants with the medicinal properties against the skin disease. The method adopted in the Study was interviewing and observation of plant use. The specific questions based upon preformed designs were asked and the information were recorded In the ethno-botanical field work. Base on the investigation plants with their local name, botanical name family part of plant used and ethno-botanical uses are reported (*Hooker 1872*). India's Indigenous communities collectively known as Adivasi or Scheduled Tribes, represent a significant and integral part of the country's cultural fabric. Data collection for this study conducting semi-structured interview with informants Knowledgeable about or using plants for medicinal purpose During survey of Niwari District collected necessary information regarding medicinal uses of plants, their Local names etc. The plants collected were processed in customary way and deposited in the Regional Herbarium of India, Necessary photographs of general vegetation and useful plants along with tribal's were also taken. Stress had been given for medicinal plants used to cure various diseases of human beings. These tribal villages were surveyed through periodical tours, field observation. All Study Sites are most effective Information and Ethano-medicinal data will be recorded on the spot along with careful documentation of cultural and biological aspects of local knowledge. field work for ethano-medicinal uses after careful observations, Information on of relevant questionnaire were given in the field Performa. Discussion were made about the use of plants at different times different with various groups. Questionnaire helped greatly in assessing the authenticity of information. In most of the cases some addition and alterations about the medicinal uses and the mode of administration of plant were noted. Tribal and rural groups have their own name of every plant as they recognize. An effort was made during field survey to record the local name exactly as the people pronounce it. The detail about the mode ay administration of drug the dosage and

preparation of medicine was based process of on the information given by local Vadiya, Ojha and Hakim.

4. Study Area

Niwari district located at central part of Bundelkhand region at 23°10 to 25° 20 North latitude and 78°59 to 80°26 east longitude belonging at 150 to 300msL. The river Betwa Surrounded boundary of Niwari District. The state is known for its rich biodiversity and cultural heritage, as well as natural attract like national parks and wildlife Sanctuaries. The district is known as for the **Shree RamRaja Temple in Orchha** which is popular Hindu pilgrimage site. The collected specimen information and photographs were further used in the Interviews to recheck the information with other informants as well (*Rahman et al; 2019 and Iqrbal 2019*).

Field Questionnaire

The following format was utilized during the field study to collect data from informants:

(i) Informant Profile

- Name: _____
- Sex: _____ Age: _____
- Locality/Village: _____
- Occupation: _____
- Education: _____

(ii) Plant & Treatment Data

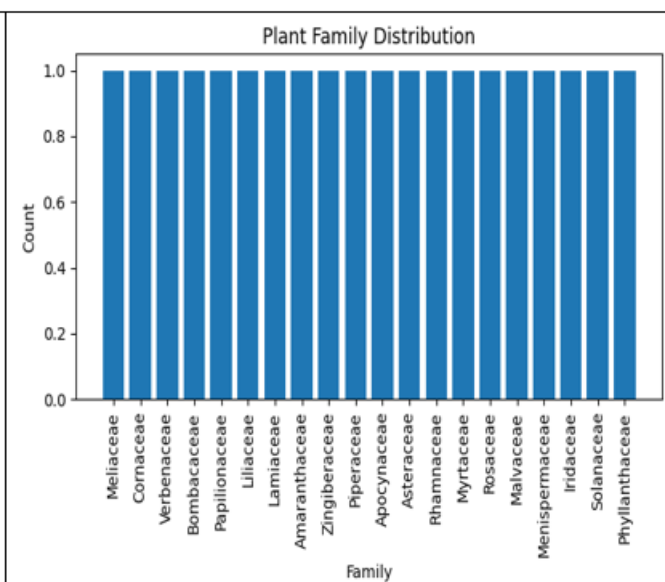
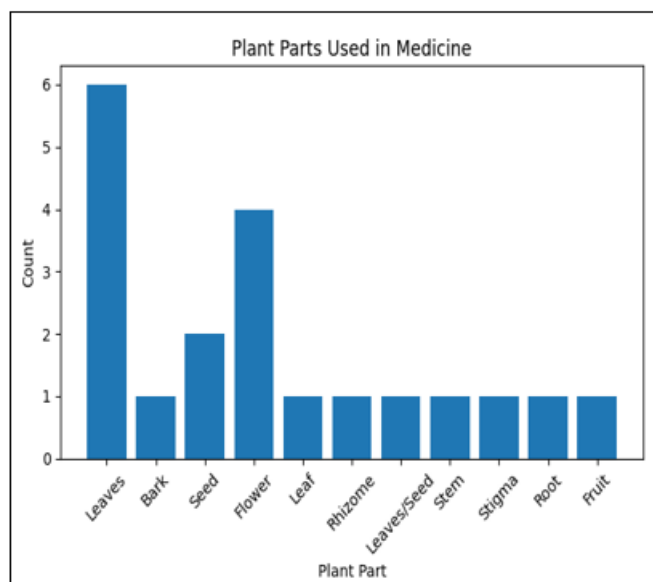
- Botanical Name: _____
- Local Name: _____
- Family: _____
- Plant Habitat: _____
- Plant Part Used: _____
- Name of Disease: _____
- Route of medicine: _____
- Plant part use as medicine: _____
- Mode of Administration: _____
- Dosage: _____
- Observed Effects: _____

5. Observation

Tabulation of plants use in Skin Disease.

S. No	Dominant plant/ Family Name	Part Used/ Route of medicine	Symptoms	Allopathic Medicine	Side effect	Ethno-medicinal Uses
01	<i>Azadirachta-indica (Neem)</i> (Meliaceae)	Leaves / Bark +water/Honey	Redness, Swelling, Itching	Steroid Creams (Clobetasol)	Stress on Liver	Leaf paste/oil applied externally for antibacterial/antifungal properties; Bark powder mixed with honey for acne.
02	<i>Alangium-salviifolium</i> (Akola) (Cornaceae)	Bark powder +Rose water	Redness /Allergy	Hydrocortison cream	Dryness/ peeling	Bark powder applied with Rose water for skin irritation and use as face pack.
03	<i>Vitex-nirgundo</i> (Nirgundi) (Verbenaceae)	Seed powder + Rose water	Reashes	Retinoid benzoyl	Redness	Seed Powder applied externally as paste with rose water or with oil to treat skin irritation.
04	<i>Bombax-ceiba</i> (Semul) (Bombacaceae)	Flower+ Rose water	Acne, Pimples	Antifungal cream (Ketoconazole)	Infection / skin irritation	Flower paste applied for pimples and skin irritation or rashes.
05	<i>Pongamia-pinnata (Karanj)</i> (Papilionaceae)	Seed+ oil	Itching	Autifungal cream (Terbinafine)	Dryness / Photosensitivity	Seed oil used for skin disease treatment.
06	<i>Aloevera</i>	Leaf gel	Rashes,	Antibiotic cream	Allergic reaction	Leaf gel used for cooling, healing,

	(Liliaceae)		Itching	(mupirocin)		anti-inflammatory and anti-microbial properties.
07	<i>Ocimum-sanctum</i> (Tulsi) (Lamiaceae)	Leaves	Swelling, Rashes	Steroid cream (Betamethasone)	Dryness	Fresh leaf paste applied on affected areas. like pimples / Rashes.
08	<i>Achyranthus-aspera</i> (chirchita) (Amaranthaceae)	Leaves+Multani mitti	Skin irritation swelling	Antihistamine tablets.	Dryness	Leaves paste pss applied on fungal infection
09	<i>Curcuma-longa</i> (Haldi) (Zingiberaceae)	Rhizome	Itching	Mupirocin	Dryness Yellow staining	Haldi powder mixed with mustard/coconut oil applied externally.
10	<i>Piper-betle</i> (Pan) (Piperaceae)	Leaves / Seed + coconut oil	Swelling, Itching, Rashes	clotrimazole	Skin irritation	Leaf extract mixed with coconut oil; Seed powder applied as paste.
11	<i>Butea-monosperma</i> (Palash) (Fabaceae)	Leaves+ coconut oil	Itching/ Redness	Mupirocin	Allergic reaction	Leaf / Bark paste+ coconut oil is used for fungal-infection.
12	<i>Calotropis-gigantea</i> (Aak) (Asclepiadaceae)	Leaves + Mustard oil	Redness swelling	Cetirizine	Dry mouth	Leaf paste with mustard oil is use for Itching
13	<i>Tagetes-erecta</i> (Merigold) (Asteraceae)	Flower + Turmeric powder +curd	Redness	Cetirizine	Allergy	Flower paste and curd use for Herbal Facepacks.
14	<i>Ziziphus-mauritina</i> (Ber) (Rhamnaceae)	Leaves+ Turmeric powder	Itching and Redness	Povidoneiodine	Dryness	Leaf paste + curd is use to Itching and Redness
15	<i>Rosa</i> (Gulab) (Rosaceae)	Flower paste + Honey	Redness	Clindamycin	Allergy	Flower paste is use for redness and preparing of Rose water.
16	<i>Hibiscus-rosa</i> (gurhal) (Malvaceae)	Flower+Honey	Redness and Itching	Clindamycin	Redness, irritation	Flower Paste + honey is use For Pimples, Dead skin cells removing.
17	<i>Tinospora-cordifolia</i> (Giloy) (Menispermaceae)	Stem + Water	Redness, rashes	Calamine lotion	Allergy	Stem paste is use for Pimples and fungal infection
18	<i>Lawsonia-inermis</i> (Mehndi) (Lythraceae)	Leafs	Wound Healing	Saptron Tablet	Dryness and allergy	Leaf paste is applied on cut mark and infected area
19	<i>Withania-somnifera</i> (Ashwagandha) (Solanaceae)	Root + Water	Burning, redness	Benzoyl peroxide gel	Cooling effect/ Allergy	Root powder and water is use for face pack and pimples.
20	<i>Phyllanthus-emblica</i> (Amala) (Phyllanthaceae)	Fruit + Honey	Pimples, dryness	Calamine lotion	Dryness/ Redness	Fruit powder + honey is used for pimples and Infection



6. Conclusion

This study was conducted on the topic Ethno-medicinal study of 20 plants used in Skin diseases in Niwari District of M.P India. The current study examined the usage of ethno-medical plants by men and women in the past, as well as the adverse effects of allopathic medications, using a questionnaire. The latter findings highlight the need for careful conservation of indigenous knowledge and a

sustainable harvesting procedure. The prominence of stems, leaves, fruit, and roots as medicinal parts demonstrates the profound traditional understanding of their therapeutic benefits. It is crucial to preserve ethno-medical plants and indigenous knowledge of plants utilised in conventional medicine. In this regard, recording every manifestation of the oral tradition and preserving them for appropriate scientific research on therapeutic herbs (35)

7. Result and Discussion

The present work based on Ethno-medicinal study of 20 medicinal plants used in skin diseases at Niwari District (M. P). The study provides significant insights into the inter-relationship between traditional Knowledge and modern scientific validation. The region rich in floral diversity and in habited by Various tribal and rural communities including the Kol, Gond, and Baiga tribes holds a wealth of Indigenous knowledge that has been passed down orally through generations. These Communities have developed a deep Understanding of their local environment and rely heavily on plant-based remedies for primary healthcare, especially in remote areas with limited access to modern medical facilities according to (Reddy, A.M, Babu, M. V. S. & Rao, R. R et al (2019). There are some Plants belonging to some families have been given here. some plants used as whole for medicine, while other only parts like Leaves, stem, Root, Pulp, Seeds Used in present paper Tabulation only have been given. The recorded plant species belonging to 20 families- Meliaceae cornaceae Bombaceae, papilionaceae Liliaceae Lamiaceae Zingiberaceae Verbenaceae, Amaranthaceae, fabaceae menispermaceae, Solanaceae phyllanthaceae Rosaceae, malvaceae, menispermaceae were predominant.

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