



## ORIGINAL RESEARCH ARTICLE

## Ethno medicinal plants used in the treatment of skin diseases by the tribals of topchanchi wild life sanctuary area, Dhanbad, Jharkhand, India.

Anamika and Kamini Kumar\*

University Department of Botany, Ranchi University, Ranchi, Jharkhand, India.

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**Abstract:** Topchanchi Wild Life Sanctuary, Dhanbad is less studied and investigated, as this area is far from town. Ethnic and non-ethnic communities of this area are using medicinal plant for the treatment of many ailments. An ethnomedicinal plant survey was conducted among vaidyas of this area. A list of plants was prepared which they use for skin diseases. A total of 12 plants of various species were documented in curing various types of skin diseases like eczema, cellulites, swellings and sores.

**Key words:** Ethnomedicinal; skin disease; tribal; Wild Life Sanctuary.

### Introduction

Jharkhand is a treasure of medicinal plants. People of Jharkhand literally (bushland) and symbolically are associated with forests. Various ethnic groups like Munda, Oraon, Ho, Santhal, Paharia etc. have symbiotic relations with forests. Topchanchi Wild Life Sanctuary is very rich in flora and fauna. It is situated on Parasnath hill at 18,625.99 hectare. The area is covered by forest and is 8,135.19 hectare. This area is very interior and naxal affected. Local people still thrives on local vaidyas as their primary treatment or ailments.

Skin diseases are infection on skin. The skin covers the organ tissue, bones and muscles of the body. An important function of the skin is to protect the body from infections. Skin infections can be caused by a wide variety of germs and symptoms can vary in severity. The three main causes of a skin infection are bacteria, viruses and fungi. Many types of bacteria can cause skin infections. According to New York State Department of Health, the two most common bacteria are *Staphylococcus aureus* and *Streptococcus*. Viral skin infections are most often caused by three groups of viruses. Poxvirus, human papilloma virus and herpes simplex virus. Skin infection can also be caused by fungi most commonly yeast. In addition, fungi often grow in warm, moist environments. Wearing sweaty or wet cloths increases a chance for skin infections. A break or cut may allow bacteria to get into the deeper layer of the skin.

The symptoms of skin infection can vary depending on its type. A common symptom includes redness of the skin, a rash may also develop. Cellulites, swellings, sores blisters lesion and itching can also be symptoms of certain skin infections.

People of rural area cannot pay much attention on cleanliness. They often remain in wet cloth for long time as they have to go to forest with cattle or collection of some forest material for their

livelihood. So they are very prone to various types of skin diseases. Almost everyone in those areas can become allergic to skin diseases<sup>1</sup>.

### Objective Research

Documentation of traditional knowledge of Wild Life Sanctuary, Topchanchi.

### Materials and Methods

Frequent survey tours were conducted to Topchanchi Wild Life Sanctuary area during the year 2013 – 2014. Many vaidyas of that area were interviewed and visited for information on the use of medicinal plants. Questionnaire were prepared which contain the information regarding social economical condition of vaidyas. Details of medicinal plants which they use for medicine like parts used, its proper dose, availability and duration of treatment were recorded.

### Results and Discussion

The ethnomedicinal plants with their local name, botanical name, family and parts used in table 1 were used for the treatment of skin diseases in Topchanchi Wild Life Sanctuary.

Generally herbal healers or vaidyas of Topchanchi area use these plants for the purpose of skin treatments. They either use parts of the plant with some oil or make their dried powder and mix them with some oil for the convenience of use. In herbal system of treatment, it takes long time to get cured. But in some cases it was seen that application of the drug for 2 or 3 times give tremendous relief in case of Eczyma.

Now a day there are a few vaidyas practicing in the remote area of Topchanchi region. New generations are not much interested in knowing these traditions. Usually people learn the medicine system from generation to generation by words of mouth or by practice. New generations hardly

### \*Corresponding Author:

Dr. (Mrs.) Kamini Kumar,  
University Professor,  
University Department of Botany,  
Ranchi University, Ranchi, Jharkhand, India.

show their interest in ethno medicine. Main reason of this might be modern appliances. Proper steps towards conserving the traditional knowledge, natural and traditional practices are required. Our work confirms earlier findings<sup>2,3</sup>. People of different area use different plants for skin diseases. *Ammannia baccifera* Linn of family Lythraceae has been used against skin diseases in Chotanagpur<sup>4</sup>. The indigenous people of Ranchi district use bark of *Melia azadiracta* for skin diseases which is in conformity with our work<sup>5</sup>. Root powder of *Gloriosa superba* L. is used to cure leprosy by the rural communities of Panchmarhi forest Madhya Pradesh<sup>6,7</sup>. The tuber grinded and applied as

bandage with leaves of *Calotropis procera* for the treatment of skin eruptions are used by the tribals of Nallamalais, Andhra Pradesh<sup>8</sup>. Medicinal plants used by the tribals of Tirunelveli hills, Tamil Nadu for poisonous bites and skin diseases have been reported<sup>9</sup>. The twigs of *Annona squamosa* L. family Annonaceae has been used against Eczema by the some tribals of Jharkhand<sup>10</sup>. The traditional herbal practitioners of Ranchi, Jharkhand have used *Babunia variegata* L. along with *Celosia cristata* L. Pers and *Pongamia pinnata* L.<sup>12</sup>. The Birhotes of Topchanchi area used the leaf paste of *Dendrophthoe falata* to cure skin diseases<sup>12</sup>.

**Table 1:** List of plants used for skin diseases in Wild Life Sanctuary, Topchanchi, Dhanbad.

Sl. No.	Local Name	Botanical Name	Family	Parts used
1.	Kanout	<i>Koeleria ramosissima</i> (Wall.) Janch	Scrophulariaceae	Roots
2.	Aloe	<i>Aloe vera</i> (L.) Brum F.	Liliaceae (B & H) Xanthorrhoeaceae (APG III)	Whole Plant
3.	Kochila	<i>Strychnos nuxvomica</i> L.	Loganiaceae (B & H, APG III)	Leaf
4.	Gokhura Kanta	<i>Tribulus terrestris</i> L.	Zygophyllaceae (B & H, APG III)	Whole Plant
5.	Semal	<i>Bombax ceiba</i> L.	Malvaceae (B & H, APG III)	Bark
6.	Palash	<i>Butea monosperma</i> (Lamb.) Taub.	Fabaceae (B & H, APG III)	Bark
7.	Brahmi	<i>Bacopa monnieri</i> (L.) Wett st <i>Centella asiatica</i> (L.) Urb	Plantaginaceae (B & H, APG III) Apiaceae (B & H, APG III)	Leaf
8.	Karanj	<i>Pongamia pinnata</i> (L.) Pierse	Fabaceae (B & H, APG III)	Bark, Extract Oil
9.	Neem	<i>Azadiracta indica</i> A. Juss.	Meliaceae (B & H, APG III)	Bark, Extract
10.	Dhatura	<i>Datura stramonium</i> L.	Solanaceae (B & H, APG III)	Whole Plant
11.	Ak	<i>Calotropis procera</i>	Asclepiadiaceae	Latex And Leaf
12.	Haridra	<i>Curcuma longa</i>	Zingiberaceae (B & H, APG III)	Bark

B & H : Benthom and Hooker's system of classification.

APG III : Angiosperm Phylogeny Group III System 2009

## Conclusion

On the basis of above observations, it may be concluded that the plants in the list may be used for skin diseases.

## Research Highlights

Investigation revealed that twelve plants used for skin disease were documented. Some of the plants are being reported for the first time for skin infection

## Limitations

The plants documented in the table were

## Recommendations

The survey analysis gives authentic data for documentation.

## Funding and Policy aspects

Documentation of medicinal plants from Wild Life Sanctuary, Dhanbad.

## Justification of Research

Documentation of traditional knowledge is essential as per biological diversity act.

## Authors Contribution and Competing Interests

The article is the original research work.

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