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Study On Ethnomedical Plants Used By Santal Tribes For Health Care

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Abstract: The present study shows that the medical plant is important in tribal health care. A study was conducted among the Santal people of two villages in the Paschim Medinipur district of West Bengal. During this study, information was collected through interviews method from senior Santal tribe peoples of this village, Ojha,kabiraj and local medical plants seller. The study reveals that 29 different plant species belong to 21 families and are used by the Santal tribe to cure different diseases. while leaves were noted as the most used plant part, followed by roots, bark, whole plant, flowers, latex and stem etc., most medicinal plants are used single or combined with other plants and ingredients.

Keywords: Santal, Tribe, Medical Plants, Health Care.

Introduction:

The World Health Organization has estimated that over 80% of the population in developing countries depends directly on plants for medicine[1]. Medicinal Plants are an important resource to traditional societies' health care systems. It is estimated that 70–80% of the rural population in developing Asian nations depends on traditional medicine for primary health care today, even though allopathic medicine is available in many places in the region. In rural societies of the region, food, health care, and wood-derived energy meet the basic needs. Still, there are no alternative resource options to ensure the survival of these traditional rural communities[2]. Medicinal plants are an important element of the medical system. These resources are usually regarded as part of cultural and traditional knowledge[3]. Over 9500 wild plant species are used by the tribal communities in India for meeting their various requirements, as has been recorded so far, out of which about 7500 wild plant species are used by them for medicinal purposes, about 950 are found to be new claims and worthy of scientific investigations. Many of these species are also used in various traditional medicine systems like Ayurveda, Unani, Siddha etc[4].[5] .Traditional knowledge has been documented through an ethnobotanical study of medicinal plants in the Palamalai region of Eastern Ghats, India. A total of 118 plant species have been documented[6]. Investigated 72 plant species belonging to 43 families of 66 genera used by the local people for primary health care in the northern part of Malda district, West Bengal, India[7].documented 52 species of medicinal plants belonging to 39 families and 51 genera for treating different diseases in rural people of Murshidabad district in West Bengal[8].Documented 31 ethnomedicinal plant species belonging to the 29 genera of 23 families giving their botanical, local and family names, therapeutic uses, parts used, mode of administration etc., used by different tribal-dominated parts of Hooghly district, West Bengal[9].recorded 25 plants which are used by the santal people living in and around Susunia hill of Bankura for treatment of 27 types of diseases[10]. The objective of the present work is to explore the medical remedies of some medicinal plants used by the Santal tribe of Bulanpur and Pitli villages of Paschim Medinipur district, West Bengal, India.

Study Area:

This study was conducted in two Santal living villages named Bulanpur and Pitli, known as the part of Jangalmahal, which are situated in Patharpara gram panchayat under Garhbeta II block of Medinipur district, West Bengal, India.

Materials and Methods:

An Ethnomedical study was undertaken in a different part of these villages. The field study was conducted for six months duration (July 2022 to December 2022). Information of ethno- medicinal data were collected by structured questionnaire-based interviews method from senior Santal tribe peoples of these villages, ojha,kabiraj and local medical plants seller. Collected plant specimens were identified following standard taxonomic methods[11], [12].

Result and Discussion:

during this survey, work found 29 medical plant species, which belong to 21 families that have been documented along with their local names, which are partly used in medicine, preparation procedures etc(Table 1). These plants are used to cure 30 types of diseases. These plants are used for white discharge, bleeding, bronchitis, acidity, dysentery, piles, haemorrhoids, blood dysentery, hypertension, diarrhoea, blood dysentery, liver, menstruation problems, diarrhoea, asthma, stomach pain, haemorrhages, jaundice, hair fall, skin disease, sleeping problems, leucorrhoea, ringworm, dental and gum problems, cough, arthritis, cold fever, insect bites, constipation and digestive problems.

Most of their ethnomedical knowledge is transferred from one generation to the next. Tribal peoples of this study area used different parts of medicinal plants as medicine, mostly leaves followed by roots, bark, whole plant, flowers, latex and stem etc. Most medicinal plants are used single or combined with other plants and ingredients.

Table 1: An enumeration of the medicinal plants and their uses.

Sl. NO	Botanical Name	Family	Local Name	Parts Used	Medicinal Uses
1	*Achyranthes Aspera*	Amaranthaceae	Apang	Whole Plant	**White discharge**- the whole plant and black pepper are pasted together and consumed on an empty stomach in the morning, curing white discharge. **Bleeding**- leaves paste applied to the cut area to stop bleeding.
2	*Adhatoda vasica*	Acanthaceae	Basak	Leaves, Bark	**Bronchitis**- fresh leaves extract with honey is used for the treatment of Bronchitis and cough. **Acidity**- boiling 7 to 8gm of bark in 6 cup water and straining it to one cup are taken daily. **Piles and haemorrhoids**- the bruised leaves are slightly heated and applied to the anus to relieve pain and swelling.
3	*Alstonia scholaris*	Apocynaceae	Chatim	Bark	**Dysentery**-boiled bark is used for the treatment of Dysentery and other abdominal diseases.
4	*Amaranthus spinosus*	Amaranthaceae	Kanta notey	Roots	**Blood dysentery**- Roots and black pepper extract are taken to cure blood dysentery.
5	*Andrographis paniculata*	Acanthaceae	Kalmegh	Leaves	**liver and menstruation problems**- leaves extracts are taken every morning in an empty stomach for healthy liver and regulate menstruation problems.
6	*Bryophyllum calycinum* *Salisb*	Crassulaceae	Pathar kuchi	Leaves	**Diarrhoea**- leaves extract with 3 grams of cumin seeds and 6 grams of ghee taken for curing diarrhoea. **Piles**- leaf extract with black pepper gives relief from piles.
7	*Cynodon dactylon*	Poaceae	Durba	Leaves	**Bleeding**- leaves paste to the cut area to stop bleeding. **Blood dysentery**- 5 grams of durba leaves and 2 *Syzygium cumini* leaves mixed together, strain the juice, heat it a little, mix it with milk, and consume it twice daily.
8	*Catharanthus roseus*	Apocynaceae	Nayantara	Roots, Leaves	**Hypertension and menstrual disorders**- leaves and root extract are beneficial for cure hypertension and regulating the menstrual cycle.

9	*Calotropis Procera*	Asclepiadaceae	Acanda	Roots, Leaves, Latex	**Asthma:** First, powder the root, soak in the latex, and then dry it; then, make a cigarette and smoke it and feel better. **Stomach pain-** applying mustard oil on the leaves, heating it a little and placed on the stomach to stop stomach pain.
10	*Clitoria ternatea*	Fabaceae	Aparajita	Roots	**Bronchitis-** Take root extract with honey is to cure bronchitis.
11	*Dalbergia sissoo*	Fabaceae	Sisu	Roots	**Diarrhoea, dysentery-** Take two spoonfuls of root extract and one spoonful of honey to cure diarrhoea and dysentery.
12	*Ficus bengalensis*	Moraceae	Bot	Leaves, Aerial Roots.	**Diarrhoea and other intestinal disorder-**take leaves and aerial roots twice a day cure diarrhoea and intestinal disorders.
13	*Ficus religiosa*	Moraceae	Aswattha	Leaves, Latex.	**Haemorrhages-** latex used to cure haemorrhages and inflammation. **Jaundice-** take leaves extract with sugar cane to cure jaundice.
14	*Hemidesmus indicus*	Asclepiadaceae	Anantamul	Roots, Leaves	**Asthma-**taken 2 grams of crushed leaves are beneficial for asthma. **Skin Disease-** taken 3 grams of root powder after meals twice daily. **Dysentery-** taken root past with honey cure dysentery. **White discharge** - take root juice with cow milk.
15	*Hibiscus rosa-Sinensis*	Malvaceae	Jaba	Flowers	**Menstrual disorder-** taken crushed floral buds with water and Molasses every morning for seven days during menstruation to cure the menstrual disorder. **Alopecia-** flowers are heated with coconut oil applied on the head for hair growth.
16	*Marsilea quadrifolia*	Marsileaceae	Shusuni	Leaves	**High blood pressure and sleeping problems-** Taking cooked leaves is beneficial for high blood pressure and sleeping problems.
17	*Heliotropium Indicum*	Boraginaceae	Hanti sund	Leaves and Roots	**skin infection-** leaves paste is applied on the infected skin area. **Ringworm-** apply root paste to cure ringworm
18	*Melia Azadirachta*	Meliaceae	Neem	Leaves, Stem, Bark	**Skin diseases-** the past of leaves with turmeric is beneficial for skin disease. **Dental caries-** stem used as a toothbrush(datan) to prevent dental caries. **Dysentery-** take leaves and bark past with honey to cure dysentery. **Anaemia-** take tender leaves cure deficiency anaemia.
19	*Shorea robusta*	Dipterocarpaceae	Sal/Sarjom	Fruits, Stem	**Dental care-** stem is used as a toothbrush(datan) to prevent toothache and gum bleeding. **Dysentery-** take fruit to cure dysentery.

20	*Mahua longifolia*	Sapotaceae	Mohua/Matkom	Flowers, Leaves	**Skin diseases**- leaves and bark past applied to the affected area. Flowers extract also helpful in curing wounds, burns etc. **Hypertension and cough**- taking fresh flower juice reduces hypertension and cough.
21	*Enhydra fluctuans*	Asteraceae	Hincha	Whole Plants	**Digestive problems**- the whole plants consumed in the morning on an empty stomach cure all gastrointestinal problems. This is used as a liver tonic.
22	*Datura stramonium*	Nightshade	Dhutra	Leaves	**Hair fall**- leaves extract is applied on the scalp to hair fall will be cured. **Arthritis**- mix well leaves extract and mustard oil and heat it. then massage the painful area in a slightly warm state; the pain will subside.
23	*Ocimum sanctum*	Lamiaceae	Tulsi	Leaves	**Cough and cold**-leaves juice with honey given to children to cure colds and cough **Cold fever**- leaves juice with ginger to cure cold fever. **Insect bites**, **skin diseases** - applied leaves extract to the affected area to cure insect bites and skin diseases.
24	*Jatropha gossypifolia*	Euphorbiaceae	veranda	Stem	**Gum bleeding**- stem is used as a toothbrush(datan) to prevent toothache and gum bleeding.
25	*Centella asiatica*	Apiaceae	Thankuni	Whole Plant	**Stomach pain**- four whole plants with roots, a small amount of mango bark, one pineapple leaf, and raw turmeric juiced and consumed on an empty stomach cure stomach pain. **Dysentery**- take 5-6 leaves every morning to cure dysentery.
26	*Aegle marmelos*	Rutaceae	Bel	Fruit, Leaves	**Constipation**-taken one glass of ripe fruit juice every morning its relieving constipation **For cold fever**- take one teaspoon of leaves extract in the morning.
27	*Bombax ceiba*	Bombacaceae	Shimul	Flowers, Bark	**White discharge**- frying flowers with ghee, spread a little salt and take 2 grams of it twice a day. **Blood dysentery**- 2grms crushed bark mixed with goat's milk and consume twice a day.
28	*Mimosa pudica*	Legumes	Lojjaboti	Leaves, Root	**White discharge** - taken leaves extract with sugar in the morning. **Piles**-- leaves and root extract give relief from piles
29	*Paederia foetida*	Rubiaceae	Gandal Pata	Leaves	**Digestive problems**- The leaves are cooked with vegetables, which are taken to cure the digestive disorder.

Conclusion:

This study indicated that santal people in the study areas have a sound knowledge of herbal medicine. This ethnomedical knowledge is transferred from generation to generation in santal society. This traditional knowledge of Santal peoples on medical plants should be conserved through its documentation and has to be used in modern medicine by further pharmacological studies.

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