

Plants Used In the Treatment of Skin Diseases in Harapanahalli Taluk, Karnataka, India

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Abstract: An ethno-botanical survey was conducted to unveil the knowledge treasure of folk medicine in Harapanahalli taluk of Davanagere district, Karnataka state, India. The indigenous knowledge of local traditional healers and the native plants used for the treatment of skin diseases were collected through questionnaire and personal interviews. A total of twenty one plant species were found to be used in the treatment of various skin diseases by the rural and folk people in Davanagere district. Out of these, plant species like *Aloe vera* (L.) N. Burm., *Aristolochia indica* L., *Azadirachta indica* A. Juss., *Curcuma longa* L., *Thespesia populnea* (L.) Soland and *Erythrina indica* Lam. were found to be most effective against skin diseases. The scientific, local and family names of all these medicinal plants along with the habit, part used and mode of their administrations were recorded. Importance was also given in creating awareness among the rural people for the protection and conservation of these valuable medicinal plants.

Keywords: Traditional knowledge, Medicinal plants, skin diseases, Karnataka

1. INTRODUCTION

Human beings were dependent on medicinal plants for the treatment of various ailments since thousands of years. Even after the induction of 200 years of modern system of medicine, about 90% people in rural India take the help of local health practitioners for the treatment of various diseases [1]. The present paper reveals the properties of medicinal plants used by traditional herbal healers for the treatment of skin diseases in Harapanahalli taluk of Davanagere district of Karnataka state, India. Skin diseases like eczema, leucoerma, ringworm, scabies, and many other conditions are treated completely with herbal drugs. Hundreds of medicinal plant species worldwide are used in the traditional medicine as a treatment for skin diseases caused by bacteria, fungi and viruses [2]. Harapanahalli, one of the taluks in Davanagere district of Karnataka state is located at 14.8° North latitude and 75.98° East longitude (Fig. 1). It has an average elevation of 633 meters above the sea level. The population in Harapanahalli taluk is 3, 02,003 as per the survey of census during 2011 by Indian Government. There are 1, 54,289 males (51%) and 1, 47,714 females (49%) in the taluk. The total geographical area of the study area is 143024 ha. Major part of the taluk lies in Krishna basin and is drained by Tungabhadra River. The taluk enjoys dryness in the major part of the year and hot summer. In general south west monsoon contributes

58% of total rain fall and north east monsoon contributes 22% of rain fall. The remaining 20% rain fall is received as sporadic rains in summer months. Normal annual average rainfall is 656 mm. Major part of taluk is covered by Red sandy loam soil and followed by black soil. Major crops cultivated in this region are Maize, Jowar, Ragi, Sunflower, Groundnut and Cotton. People of the study area exhibit a vast diversity in their culture, tradition and living system.

Fig. 1- Location map of the study area.



II MATERIALS AND METHODS

Field trips were undertaken in the study area at different seasonal conditions of the year to gather the traditional knowledge on medicinal plants used in the treatment of skin diseases. The information was gathered by direct interaction with herbal healers, tribal people and knowledgeable farmers at field. The information recorded includes local name of the plant, parts used, method of drug preparation and its administration, Probable dosage and duration of treatment [3]. The collected plant species were identified by referring them to the available flora and Herbarium collections maintained in the department of Botany, A.D.B. first grade college, Harapnahalli [4, 5].

III RESULTS AND DISCUSSION

The results of the ethno-botanical survey are compiled in Table 1. A total of 21 plant species were identified for the treatment of various skin diseases in the study area. These plants are arranged in alphabetical order of their scientific name along with family followed by local name of the



plant; parts used and form of drug prepared. The collected data was compared with the available literature and found many of the usages are not recorded earlier. In some cases, the plants are reported to be used for skin diseases, but the part used, mode of administration and drug preparation recorded were different. Some of these plants are also used for treating certain other human diseases. *Calotropis procera* R.Br. is used for elephantiasis, pneumonia and tuberculosis in Andhra Pradesh [6]. *Aloe vera* (L.) N. Burm. and *Azadirachta indica* A. Juss. are used for treating diabetes in north Karnataka[7]. *Momordica charantia* L is used to cure jaundice in North Maharashtra[8]. It is found that, different plant parts were used to cure skin diseases. Among these, leaves were highly utilized, followed by whole plant, roots, fruits, buds and bark.

IV CONCLUSION

The present study revealed that the local healers are possessing good knowledge of herbal drugs. Now a day, conservation of traditional knowledge is greatly menaced by a lot of factors related to modernization of the region and lack of interest in traditional healers in transferring it to the next generation. It is therefore essential to document the traditional knowledge of medicinally useful plants. Such studies may provide some valuable information to phytochemists and pharmacologists in screening of individual plant species and assessing active substances against skin diseases.

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Table 1. Medicinal plants used in the treatment of skin diseases in Harpanahalli taluk of Davanagere district, Karnataka, India

Sl. No.	Plant species	Family	Local name	Parts used	Preparation
1	<i>Aloe vera</i> (L.) N. Burm.	Liliaceae	Lole sara	Leaves	Gel
2	<i>Aristolochia indica</i> L.	Aristolochiaceae	Eshwari balli	Root	Decoction
3	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Bevina mara	Leaves	Paste/Juice
4	<i>Calotropis procera</i> R. Br.	Asclepiadaceae	Bili ekkae	Buds	Paste
5	<i>Croton bonplandianus</i> Bail.	Euphorbiaceae	Sanna oudala	Leaves	Paste
6	<i>Curcuma longa</i> L.	Zingiberaceae	Harishina	Rhizome	Paste
7	<i>Echinops echinatus</i> Roxb.	Asteraceae	Brahma dande	Whole plant	Paste
8	<i>Erythrina indica</i> Lam	Fabaceae	Alwana	Bark	Paste
9	<i>Gloriosa superba</i> L.	Liliaceae	Gouri balli	Tuber	Paste
10	<i>Hibiscus cannabinus</i> L.	Malvaceae	Pundegida	Leaves	Paste
11	<i>Lawsonia inermis</i> L	Lythraceae	Madhrangi	Leaves	Paste
12	<i>Mangifera indica</i> L.	Anacardiaceae	Mavu	Leaves	Ash



13	<i>Momordica charantia</i> L.	Cucurbitaceae	Hagala balli	Leaves	Juice
14	<i>Nicotiana tabacum</i> L.	Solanaceae	Tambaku	Leaves	paste
15	<i>Ocimum sanctum</i> L.	Lamiaceae	Sri Tulsi	Leaves	Juice
16	<i>Santalum album</i> L.	Santalaceae	Sri gandha	Wood	Paste
17	<i>Sapindus laurifolia</i> Vahl	Sapindaceae	Antuvala	Fruits	Powder
18	<i>Tamarindus indica</i> L.	Caesalpiniaceae	Hunse mara	Leaves	Paste
19	<i>Thespesia populnea</i> (L.) Soland. ex Correa	Malvaceae	Boguri Gida	Leaves	Paste
20	<i>Thevitia neriifolia</i> Juss. ex Steud	Apocynaceae	Gante huvina gda	Roots	Paste
21	<i>Xanthium strumarium</i> L.	Asteraceae	Marul matangi	Leaves	Paste