

## Traditional knowledge on medicinal plants used for the treatment of skin diseases in Bidar district, Karnataka

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A survey of medicinal plants of different rural and forest areas of Bidar district was conducted. It was found that the drug preparations of plant origin are commonly used by tribals, local inhabitants and folk practitioners for the treatment of skin diseases. About 26 plant species of 25 genera belonging to 16 families are described along with the method of drug preparation, mode of administration, probable dosage and duration of treatment. The aim of the study is not only to prescribe the remedies for skin diseases in human beings but also an endeavor to draw attention for the need of a detailed study on medicinal plants of the area, which could provide better and efficient remedies for many other dreadful diseases.

**Keywords:** Medicinal plants, Traditional medicine, Skin diseases, Tribals, Folk medicine, Ethnomedicine, Karnataka

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Medicinal plants are commonly used in traditional medicine for treating and preventing ailments and diseases and are generally considered as healthcare resource. The World Health Organization (WHO) has estimated that as many as 80% of the world population is dependent on traditional medicine for their primary health needs<sup>1</sup>. The traditional system of medicine have a heritage of community acceptance, and the experience and knowledge of local herbalists, who can utilize enormous diversity of plants, which is much sought after patronised<sup>2</sup>. India is a repository of medicinal plants. The herbal treasure of nation is rich in its floristic wealth. Since ancient times, exploitation of plants continues till the day for the benefit of mankind<sup>3</sup>. At present, about 65% of the Indian population is dependent on the traditional system of medicine<sup>4</sup>. Many hundreds of medicinal plant species world wide are used in the traditional medicine as a treatment for skin diseases caused by bacteria, fungi and viruses. Skin diseases include several conditions like eczema, leucoderma, ringworm, scabies and many not with distinctly specified conditions. In order to know the herbal remedies to these stubborn skin conditions, the present investigation has been carried out. The district comprises five *talukas* namely,

Aurad, Basvakalyan, Bhalki, Bidar and Humnabad, situated in the northeastern part of Karnataka, covering an area of 5,448 km<sup>2</sup> within 17°35 and 18°25 N latitude and 76°42 and 77°39 E longitudes (Fig. 1). It has a very rich heritage of herbal medicinal plants. The rural population prefers it more than allopathic medicine. They use herbal medicine for an effective cure with a confidence as the herbal medicine does not have any side effect at the optimum level. There are reports on traditional knowledge on medicinal plants of many regions<sup>5-9</sup>. However, extensive and systematic work on medicinal plants is yet to be done in Bidar district.

### Methodology

During the period from 2003 to 2004, a detailed survey was undertaken to identify the plants with their medicinal properties against the skin diseases. Fifteen villages were identified from different areas of Bidar district namely, Eakamba, Chimegaon tanda, Chintaki, Dongergoan, Kushnoor and Santapur (Aurad *taluka*), Rajola, Koudayal, Narayanpur (Basvakalyan *taluka*), Ganeshpur wadi Dhannur tanda (Bhalki *taluka*), Kamtana, Bavagi (Bidar *taluka*), Mangalagi, and Madargaon (Humnabad *taluka*).

The information on the use of medicinal plants was gathered by direct interaction with *Vaidhya*,

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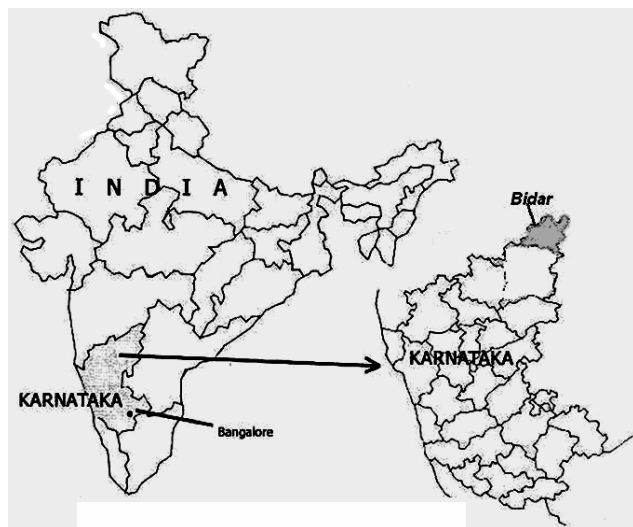


Fig. 1—Location map of study area

*Kadukurubas*, *Lambani* folk practitioners, local healers, and villagers at field. The information recorded includes local name of the plant, parts used, method of preparing the drug, its mode of administration, probable dosage and duration of treatment. These plant species were identified with the help of International Code of Botanical Nomenclature and also by referring them to the herbarium collections maintained in the postgraduate department of Botany, Gulbarga University, Gulbarga<sup>10-11</sup>. Preliminary data was recorded by observing the plants in field. Standard methods were followed with regard to the collection of plant materials, drying, mounting, preparation and preservation of herbarium sheets. Herbarium specimens have been deposited in the department of Botany, Gulbarga University, Gulbarga.

Table 1—Medicinal plants used against skin diseases by rural population of Bidar

Plant name	Family	Local name	Uses
<i>Abrus precatorius</i> Linn.	Fabaceae	<i>Kemp gulugungi</i>	Equally mixed root and fresh rhizome of turmeric paste is applied on the wound until it cures. A paste made of the seed and <i>Plumbago</i> root is applied as a stimulant dressing.
<i>Achyranthes aspera</i> Linn.	Amaranthaceae	<i>Uttarani</i>	Root paste is applied on the affected area till it cures.
<i>Allium sativum</i> Linn.	Liliaceae	<i>Balegaddi</i>	Bulb paste is applied on the infected area of skin for 2-3 days; acts as antiseptic. Bulb paste is applied on the body; bath is given with lukewarm water to remove worms.
<i>Aloe vera</i> Linn.	Liliaceae	<i>Lolesara</i>	Leaf juice has antibacterial, antiviral, antifungal, and wound healing properties; reduces scars, lesions and useful in acne vulgaris.
<i>Argemone mexicana</i> Linn.	Papaveraceae	<i>Peevala Dhatura</i>	Whole plant paste is applied on affected area for 3-4 days.
<i>Azadirachta indica</i> A. Juss.	Meliaceae	<i>Mavinamara</i>	Leaf paste is applied to the affected area about 2-3 times a day till it cures. of leaf decoction bath is taken daily for 15 days.
<i>Bucahnania lanzan</i> Spreng.	Anacardiaceae	<i>Chironjiv</i>	Decoction of bark (100 ml) is taken internally once in a day for 3 days. Seed paste is applied on burn till it cures.
<i>Calotropis giganteam</i> (L.) R.Br.	Asclepiadaceae	<i>Kempu yekke</i>	Root bark powder soaked in buttermilk is applied on dark patches for 21 days. Leaf paste is applied on swelling portion till it cures. Latex is applied for treating leprosy.
<i>Cassia fistula</i> Linn.	Fabaceae	<i>Kakke gida</i>	Root bark decoction is taken internally twice a day for 15-20 days. Leaf paste is applied on the affected area till it cures.
<i>Celosia argentea</i> Linn.	Amaranthaceae	<i>Karada</i>	Seeds paste is applied on the affected part till it cures.
<i>Curcuma longa</i> Linn.	Zinziberaceae	<i>Halad</i>	Rhizome paste is used externally for septic and wounds for 5-6 days.
<i>Cyperus rotundus</i> Linn.	Cyperaceae	<i>Jaqqadda</i>	Paste of tuber and 2-3 beetle leaves is applied for 3-4 days on the affected parts.
<i>Datura stramonium</i> Linn.	Solanaceae	<i>Pandra Dhatura</i>	Paste of equally mixed flowers of the plant and <i>Tylophora indica</i> leaves is applied on the affected part for 11 days.
<i>Hyptis suaveolens</i> Linn.	Lamiaceae	<i>Beejabandha</i>	Leaf paste is applied on sores and fungal infection.

Contd—

Table 1—Medicinal plants used against skin diseases by rural population of Bidar—Contd

Plant name	Family	Local name	Uses
<i>Indigofera linifolia</i> Linn.	Fabaceae	<i>Lal baric phulara</i>	Whole plant paste is applied at the affected portion till it cures.
<i>Lantana camara</i> Linn.	Verbenaceae	<i>Hunnigida</i>	Leaf paste is applied on cuts and wounds for 7-8 days.
<i>Lawsonia inermis</i> Linn.	Lythraceae	<i>Mehndi gida</i>	Leaf decoction is drunk to smooth face skin. Leaf paste is also applied on cuts and wounds for 7-8 days.
<i>Leonotis nepetifolia</i> (L.) R.Br.	Lamiaceae	<i>Lamani bonda</i>	Seed paste in <i>Koronji</i> oil is applied on head sores till it cures.
<i>Mangifera indica</i> Linn.	Anacardiaceae	<i>Amba</i>	Gum resin mixed with coconut oil is applied on the affected part for 7-8 days.
<i>Oscimum sanctum</i> Linn.	Lamiaceae	<i>Tulasi</i>	Leaf paste is applied on the skin to cure ringworm.
<i>Ricinus communis</i> Linn.	Euphorbiaceae		Seed paste is applied on wounds and itch for 4-5 days.
<i>Tamarindus indica</i> Linn.	Fabaceae	<i>Chinchacha zada</i>	Leaf paste is applied on the swelling on hands and legs till it cures.
<i>Tephrosia purpurea</i> Linn.	Fabaceae	<i>Koggigida</i>	Leaf decoction is used for bath everyday for 10-15 days.
<i>Tephrosia villosa</i> Linn.	Facabaeae	Niligida	Crushed leaves are taken internally once in a day early in the morning for 51 days.
<i>Tribulus terrestris</i> Linn.	Zygophyllaceae	Nuggemullu	Leaf paste is applied on the affected parts for 3-4 days.
<i>Tirdax procumbens</i> Linn.	Asteraceae	Kach	Leaf paste is applied on wounds and scabies for 4-5 days.

## Results and discussion

Present study includes information on 26 plant species belonging to 25 genera and 16 families, which are used very commonly as remedies for skin diseases. These plants are arranged in alphabetical order of their scientific name along with family followed by local name, name of the plant, parts used, method of preparing the drug, its mode of administration, probable dosage and duration of treatment<sup>12-13</sup> (Table 1).

The present investigation brought in light 26 medicinal plants used against skin diseases by rural population in different rural and forest areas of Bidar district. Data was compared with the available literature and found that many of the usages listed are not recorded earlier<sup>14-18</sup>. However, for a few plants namely, *Aloe vera* leaves used for burns, acne and dermatitis; *Curcuma longa* rhizome used for septic and wounds; *Azardirachta indica* leaves used for septic, wounds and scabies; *Tridax procumbens* leaves used for wounds and scabies, are some of the usages recorded in the literature. In Karnataka, ethnobotanical studies on medicinal plants were conducted in Kodago, Uttar kannada, Chikmangalur, South canara and Tumkur districts<sup>19-25</sup>. However, in Bidar district, no detailed study on ethnobotany of medicinal plants is conducted. The study represents a contribution to the existing knowledge of folk remedies that are in current practice for the treatment of skin diseases, which happens to be the most

common ailment amongst rural population because of their unhygienic living conditions. It is hoped that, this information will be a useful lead for phytochemists and pharmacologists for further study. Once the efficacy of these herbal drugs in treating skin diseases is scientifically established, the popularisation of these remedies can be recommended in Indian healthcare system for wider application, since these plants are well within the reach of rural masses.

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