



SOME ETHNOMEDICINAL WEED PLANTS OF BUNDELKHAND REGION, INDIA

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ABSTRACT

An ethnomedicinal study was carried out in various rural and tribal areas of Bundelkhand region during November 2011 to October 2012. The information related to medicinal uses of weed plant species which are used to cure various ailments, was gathered by personal interviews with the local medicinemen, experienced local villagers and tribal people. A total of 20 plant species of weed plants belonging to 12 families are listed here in this paper, which are locally used to cure various ailments.

KEYWORDS: Ethnomedicinal study, Bundelkhand region, Medicinal uses, Ailments, Tribal people, Weed plants.

INTRODUCTION

The traditional medical practices based on plants are an important part of the primary healthcare system in the developing world.^[1] According to the World Health Organization (WHO) as many as 80% of world's population depends today on traditional medicine for their primary health care needs.^[2] Safe, effective and inexpensive indigenous remedies are frequently used from the ancient time by the people of both the urban and the rural areas, especially in India and China.^[3] In India, tribal people as well as rural people still depend on local medicinal plants for the treatment of different diseases using the knowledge of folk medicine which they gain from their forefathers and their own experience. Today, not only this vast knowledge of traditional medicinal practices but medicinal plant species are also depleting at an alarming rate due to availability of modern medical facilities and some other socioeconomic factors.^[4] However, a carefully ethnomedicinal investigation become very important to conserve this knowledge in imminent danger of being lost and to find out new valuable bioactive compounds in plants.^[5]

A weed is a plant out of place not intentionally sown; whose undesirable qualities outweigh its good points. Some crop plants even can become weeds when they grow where they are not wanted. Man tries to grow only the sort of plants that he wants and the original inhabitants of the soil become useless to him are called as weeds. The recognition of plants as weeds is perhaps as old as agriculture itself. When land is cultivated to

raise crops, weeds spring up naturally along with the crop plants.^[6] In contrast, a number of plants usually thought of as weeds may actually be helpful in controlling erosion or serving as food for wild animals and birds and as well as may also be an important source of medicines.

Bundelkhand region covers 7 districts of Uttar Pradesh and 6 districts of Madhya Pradesh. It is located 23°8-26°31 latitude and 78°11-81°31 E longitude. The region is characterized as hot semi arid eco region along with growing period of 90-150 days. The annual rainfall ranges from 838.6-1251 mm over the region which is often erratic.^[7,8]

MATERIALS AND METHODS

An attempt has been made to under taken to document the weed plants used by local and tribal population of the study area for the treatments of various ailments. Several field trips were made between November 2011 to October 2012 and the information on uses of plants was collected through the personal interviews with the experienced villagers, medicinemen and local healers.^[9,10] Information is crosschecked with the information given by the other informants. The identity of plants was confirmed by matching two plants with the flora of region.^[11-15] With botanical name, family and local name of plant, information on ailments, part used, doses, prescribed time and days of administration of doses etc. gathered from local people have been enumerated in the Table – 1.

RESULTS AND DISCUSSION

Table 1: Enumeration of weed plant species medicinally used by the people of Bundelkhand region.

Botanical Name	Family	Local Name	Local use and doses
<i>Achyranthes aspera</i> L.	Amaranthaceae	Azzajharo	1 teaspoon root powder is taken orally with one cup of cow's milk twice a day in flatulence. Pounded leaves are applied externally in scorpion bite. Leaves are pounded and applied in cuts and wounds also.
<i>Ageratum conyzoides</i> L.	Asteraceae	Sahdevi	Leaf paste is externally applied once a day to cure cuts and wounds. Leaves are crushed and filtered. Take 10 ml. of filtrate along with water twice a day for 8-10 days in the treatment of jaundice.
<i>Alysicarpus vaginalis</i> (L.) DC.	Fabaceae	Dudhia chitar	Whole plant is dried and powdered. 50 g. of powder mixed with 250 g. of Marsh (Dalia) and given twice a day for one week to increase lactation in women.
<i>Argemone mexicana</i> L.	Papaveraceae	Peeli Katai	2-3 flowers are taken orally twice a day for 2-3 days to cure cough. Roots are crushed and filtered. 10 ml. of filtrate is taken orally with water twice a day for two days in the treatment of eczema.
<i>Calotropis procera</i> (Willd.) R.Br.	Asclepiadaceae	Akaua	Crushed the roots with roots of Andaua (<i>Ricinus communis</i>) in equal amount and fried it in Sarson (<i>Brassica campestris</i>) oil then it massaged on rheumatic joints in the treatment of rheumatism. Yellow leaf is taken, crushed and filtered with cloth. 1 drop of filtrate is applied in ear to get relief from ear pain. 2-3 flowers are taken orally with water to cure piles.
<i>Cassia tora</i> L.	Caesalpiniaceae	Pamar	Leaves are crushed with little water and externally applied on eyes in eye trouble. 8-10 ml. decoction of seeds are given twice a day for 4-5 days with water to cure malarial fever.
<i>Celosia argentea</i> L.	Amaranthaceae	Kamini	10 g. dry root powder is taken with 250 ml. of warm milk at evening for 8-10 days to cure spermatorrhoea.
<i>Cleome viscosa</i> L.	Capparaceae	Kuber	20-25 g. flowers are crushed, filtered and given to children with whey twice a day to cure stool. Leaves are crushed and make in paste form and externally applied for 8-10 days to get relief from rheumatic pain.
<i>Datura metel</i> L.	Solanaceae	Dhatura	Leaf paste is applied externally in scorpion sting.
<i>Evolvulus alsinoides</i> L.	Convolvulaceae	Shankhahuli	20-25 leaves are crushed and mixed in 200 ml. whey and taken orally twice a day for 2 days in gripping.
<i>Launaea asplenifolia</i> (Willd.) Hook. f.	Asteraceae	Gobi	10 g. root powder is taken with 250 ml. cow's milk for 15 days to cure spermatorrhoea.
<i>Oxalis corniculata</i> L.	Oxalidaceae	Khatti buti	Leaves are rubbed on the affected part of body thrice a day for 4-5 days in ringworm. 10 ml. of plant juice is taken orally twice a day along with water or whey to cure dysentery.
<i>Solanum nigrum</i> L.	Solanaceae	Makuia	Twigs are boiled in water and then boiled twigs are externally applied on the swelling part of body for 2-3 days to reduce swelling.
<i>Solanum xanthocarpum</i> Schard & Wendl.	Solanaceae	Bhat-kataia	100 g. roots are washed and cuts into small parts then boiled with 8-10 leaves of Tulsi (<i>Ocimum sanctum</i>) in 200 ml. water till the water remains half then cool down it and taken orally twice a day to cure cough. 2-3 flowers are taken orally twice a day for at least 3 days in cough. Seeds are heated in iron pot, and a clay pot having hole put upon iron pot and then inhale the steam in mouth to take out teeth worms. Leaves are crushed with black pepper and filter, take 10 ml. of filtrate in the rheumatism.
<i>Tephrosia purpurea</i> (L.) Pers.	Fabaceae	Sarpankha	10 ml. of root decoction is given twice a day for 3-4 days to cure fever. 20-25 leaves are crushed and make paste. This paste is taken along with water twice a day for 7-8

			days in dog bite.
<i>Tribulus terrestris</i> L.	Zygophyllaceae	Gokhru	Roots are ground with the roots of Ghomchi (<i>Abrus precatorius</i>) in equal amount and make pills. 1 pill takes twice a day for 4-5 days in the removal of kidney stone
<i>Tridax procumbens</i> L.	Asteraceae	Ghamra	10 ml. leaves juice is mixed in 10 ml. of water and add 5 g. sugar in it, then taken orally twice a day for 8-10 days in urinary problems. Leaves sap is externally applied to check bleeding in injury.
<i>Volutarella ramosa</i> (Roxb.) Santapau.	Asteraceae	Choti Katai	10 g. dry root powder is taken with water twice a day in urinary problems.
<i>Xanthium strumarium</i> L.	Asteraceae	Andasi	Paste of roots is externally applied on the boils and pimples.
<i>Ziziphus nummularia</i> (Burm. f.) Wight & Arn.	Rhamnaceae	Daria	Roots are crushed with the roots of Chieule (<i>Butea monosperma</i>) in equal amount and filter it. Take 1 teaspoon of filtrate orally with water thrice a day to cure stool. Roots are crushed and filtered. Take 5 ml. of filtrate thrice a day for three days to cure fever.

The present study includes the medicinal values of 20 plant species of weeds belonging to 19 genera of 12 families. Among 12 families Asteraceae is of the most medicinal value with 5 plant species of weeds which is followed by Solanaceae with 3 plant species. Amaranthaceae and Fabaceae are next in the line with 2 plant species each, while the rest 8 families are with single plant species. The study is also indicated that the roots and leaves are used most of 11 species each where as flowers are used of 4 species, seeds and whole plant of 2 species each. Twigs are reported to use from single species.

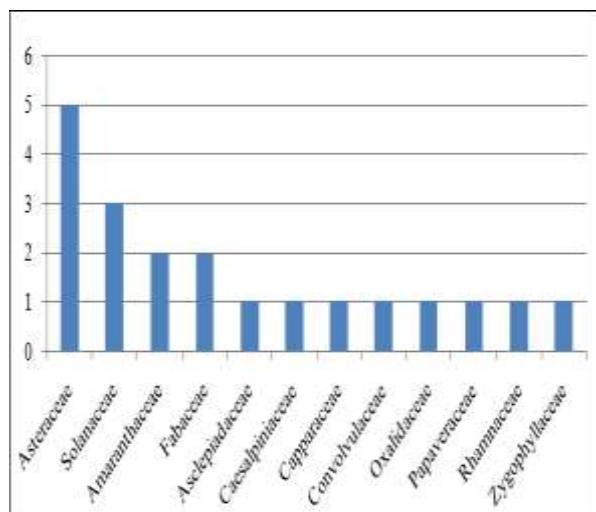


Fig. 1: Number of plant species representing families.

The common diseases for which instant traditional remedies have been practiced include fever, cough, jaundice, rheumatism, spermatorrhoea, cuts and wounds, boils and pimples, scorpion sting, stool, eczema, piles etc.

The study revealed that the maximum number of 3 species (*Cassia tora*, *Tephrosia purpurea* and *Ziziphus nummularia*) used to cure fever. 3 species (*Calotropis procera*, *Cleome viscosa* and *Solanum xanthocarpum*)

are used to cure rheumatism. It is followed by 2 species, *Argemone mexicana* and *Solanum xanthocarpum* to cure cough; *Acyranthes aspera* and *Ageratum conyzoides* to cure cuts and wounds; *Achyranthes aspera* and *Datura metel* to cure scorpion sting; *Celosia argentea* and *Launea asplenifolia* to cure spermatorrhoea; *Cleome viscosa* and *Ziziphus nummularia* to cure stool and *Tridax procumbens* and *Volutarella ramosa* to cure urinary problems.

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