

Chapter

Medicinal Plants and Traditional Practices of Baiga Tribe in Amarkantak Region of Eastern Madhya Pradesh

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Abstract

The present ethnobotanical study was carried out in Amarkantak region eastern part of Madhya Pradesh during January 2018 to January 2019 to document the medicinal plants used by the Baiga tribes. Traditional medicinal plants used by the Baiga tribes of 37 plant species belonging to 35 genera and 28 families used to menstrual disorder, piles, sore throat, respiratory disorder, haematuria, miscarriage, jaundice, fever, insanity, leucorrhoea, bleeding during pregnancy, spermatorrhea, infertility in women, motiabind, scorpion bite, wounds of animals, stomach disorder, intestinal worms, diabetes, leukoderma, rheumatism, scabies, wart and easy delivery etc. and other various unreported medicinal plants are reported here.

Keywords: Ethnomedicine, Baiga tribe, Madhya Pradesh

1. Introduction

The district Anuppur in Madhya Pradesh located between 23°15' to 24°N Latitude and 81°0' to 81°45'E Longitude, covering an area of 3701 sq. km. The district is surrounded by Korea district (Chhattisgarh) in the East, Dindori district in the West, Shahdol district in North and Northwest district in Umaria (**Figure 1**). This region is popularly known as the Plateau of Beghel-Khand for its rich and diverse flora. The Pushprajgarh block of Anuppur district mostly inhabited by Gond, Baiga, Panika, Kol, Agaria tribes in sporadic remote hill tracts. The total population of the study site is 194,574. The maximum temperature goes up to 45°C in the month of May and minimum recorded is 20°C in the month of January. The area has been categorised as Central India sub-tropical forest endowed with various forest as natural resources. The holy river 'Narmada' origin in Amarkantak in 'Mai ki Bagiya' passes through the district Anuppur, Madhya Pradesh. The *Baigas* are one of the oldest aboriginal tribes and classified as one of the primitive tribes of Madhya Pradesh based on pre-agricultural technology, low literacy and stagnant and diminishing population [1]. The area has been categorised as Central India sub-tropical forest endowed with various forest as natural resources. The *Baiga* tribes still practice on herbal medicines. Hence, the use of herbs to treatment of various health disorders is being done at a very low cost. A number of valuable research papers on ethno-medicinal plants of the Amarkantak region have been published by various

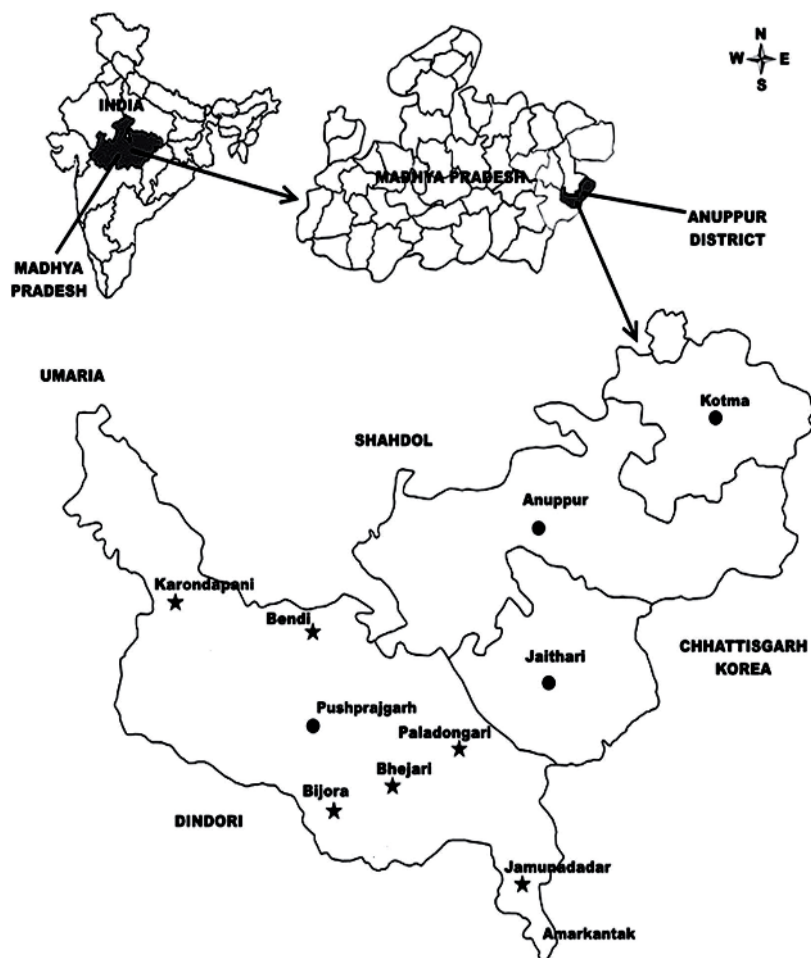


Figure 1. Location map of study area in Amarkantak region (District Anuppur), Eastern Madhya Pradesh.

researchers [2–7]. However, the vast storage of ethno-medicinal information of these study areas has not been fully documented. In the present paper, an attempt has been made to present indigenous knowledge and uses of wild plants, which are used by *Baiga* tribes for treatment of various ailment diseases.

2. Methodology

Intensive ethnobotanical explorations were conducted in seven villages, namely Pushprajgarh, Jamunadadar, Bijora, Bhejari, Paladongari, Bendi and Karondapani of district Anuppur from January 2018 to January 2019. The method adopted for collection of data was interview with *Baiga* tribes, local medicine men (*Vaidyas*) and one to one discussion about therapeutic uses of local plants in the treatment of various diseases. A questionnaire was prepared to gather data for this purpose. The herbarium specimens were prepared by following the standard method [8]. Plants used by the tribal were identified with the help of Flora of Madhya Pradesh [9–11] and identification was confirmed by consulting the herbaria of Botanical Survey of India, Central Regional Circle, Allahabad (BSA). These voucher specimens are prepared and deposited in the herbarium of Department of Botany, Pt. S.N.S. Govt. Post Graduate College, Shahdol, Madhya Pradesh. The plants are arranged alphabetically according to their botanical name followed by family, local name and mode of administration for different diseases as given in the (Table 1).

S.No.	Botanical name	Family	Local name	Uses
1	<i>Abrus precatorius</i> L.	Fabaceae	Ghumchi	Two spoonful of seed paste (red variety) is given orally once daily before breakfast for 3 days to cure menstrual disorder.
2	<i>Abutilon indicum</i> (L.) Sweet.	Malvaceae	Kanghi	Leaves are boiled in coconut oil and the oil is externally applied on head once daily for one week to cure cold and scabies on the head.
3	<i>Acacia nilotica</i> (L.) Willd. ex Delile	Mimosaceae	Bamoor	Fresh leaf paste (20 gm) is externally applied on anus daily in the morning after bath for 15 days to cure piles.
4	<i>Achyranthes aspera</i> L.	Amaranthaceae	Lathjira	Root paste is externally applied on affected area immediately after scorpion sting.
5	<i>Alpinia calcarata</i> Roscoe	Zingiberaceae	Kulanjan	Root in small pieces, chewed once in a day for 4 times to cure sore throat.
6	<i>Andrographis paniculata</i> (Burm. f.) Wall. ex Nees	Acanthaceae	Chirayta	Decoction of the whole plant (15 ml) is given orally thrice in a day for 7 days to cure respiratory disorder.
7	<i>Asparagus racemosus</i> Willd.	Liliaceae	Satavar	Fresh tuber juice (15 ml) mixed with a cup of cow's milk is given orally twice in a day for 10 days to cure haematuria.
8	<i>Azadirachta indica</i> A. Juss.	Meliaceae	Neem	Leaf juice (10 ml) mixed with a cup of water is given orally once in a day before breakfast for 7 days to prevent miscarriage.
9	<i>Bauhinia variegata</i> L.	Caesalpiniaceae	Kachnar	A spoonful of sun-dried flower bud powder mixed with a cup of water is given orally twice in a day for 21 days to cure piles.
10	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Punarnava	Root decoction (10 ml) mixed with a cup of water is given thrice in a day for 7 days to cure jaundice.
11	<i>Bryonia laciniata</i> L.	Cucurbitaceae	Shivlingi	A teaspoonful crushed seed with a glass of water is given orally once in the morning before breakfast for 3 months to cure sterility in women.
12	<i>Buchanania lanzan</i> Spreng.	Anacardiaceae	Chironji	Leaf juice (15 ml) mixed a cup of water taken twice in a day for 2 days to prevent dysentery.
13	<i>Butea monosperma</i> (Lam.) Taub.	Fabaceae	Chheula	Flowers are boiled in water and the water is used to take bath for 3 days to cure mild fever among children.

S.No.	Botanical name	Family	Local name	Uses
14	<i>Cordia macleodii</i> Hook. f. & Thomson	Boraginaceae	Dahiman	Seed paste (20 gm) is given orally with added sugar lump (<i>Misri</i>) 10 gm once in a day in the morning before breakfast for 40 days to get relief from insanity.
15	<i>Curculigo orchioides</i> Gaertn.	Hypoxidaceae	Kali musali	Decoction of fresh rhizome (10 ml) mixed with a cup of water is given orally twice in a day for 7 days to cure leucorrhoea.
16	<i>Cuscuta reflexa</i> Roxb.	Cuscutaceae	Amerbel	Stem paste (20 gm) with 2-3 seeds of black pepper powder (<i>Piper nigrum</i> L.) is mixed and the paste is given orally once in the morning on empty stomach for 3 days to cure jaundice.
17	<i>Cynodon dactylon</i> (L.) Pers.	Poaceae	Doobi	Whole plant juice (30 ml) mixed with a glass of cow's milk is given orally once at the bedtime for 3 days to cure bleeding during pregnancy.
18	<i>Cyperus rotundus</i> L.	Cyperaceae	Nagarmotha	Rhizome extract (5 ml) with one teaspoonful of honey is to take orally thrice daily for 3 days to cure diarrhoea.
19	<i>Ferula assa-foetida</i> L.	Apiaceae	Heeng	Oleo-gum-resin (5 gm) (It's obtained from the rhizome and root of the plant) is mixed with a cup of lukewarm water and applied on the stomach of the child, twice in a day for 3 days to cure flatulence.
20	<i>Ficus benghalensis</i> L.	Moraceae	Bargad	A spongy sugar-cake (<i>Batasa</i>) filled with latex (4 drops) is eaten once in a day in the morning after breakfast for 20 days to cure spermatorrhea.
21	<i>Ficus racemosa</i> L.	Moraceae	Dumer	Flower buds (7 buds at a time) which is ground well and mixed with a glass of cow's milk is consumed after dinner for 4 months to cure infertility in women.
22	<i>Gloriosa superba</i> L.	Liliaceae	Kalihari	Fresh root paste (20 gm) and 3 fruits of black pepper (<i>Piper nigrum</i> L.) are mixed in a glass of lukewarm goat's milk and it is given orally once at the bedtime for 3 days of pregnancy, which can be up to 3 months, for abortifacient.
23	<i>Hedychium coronarium</i> J. Koeing	Zingiberaceae	Gulbakavali	Two drops of flower <i>arrack</i> is dripped into human eyes thrice in a day for 15 days to prevent cataract (<i>Motiabind</i>).

S.No.	Botanical name	Family	Local name	Uses
24	<i>Helicteres isora</i> L.	Sterculiaceae	Marorphali	Seed powder (5 gm) mixed in a glass of water is given orally twice in a day for 3 days in case of gastroenteritis.
25	<i>Ipomea pes-tigridis</i> L.	Convolvulaceae	Panchpatiya	Leaf paste is externally applied on the affected area just after scorpion bite. Meanwhile, two spoonsful are given orally with a cup of water.
26	<i>Jatropha curcas</i> L.	Euphorbiaceae	Bhakrenda	Latex of stem is externally applied on wounds twice in a day for 5 days to cure wounds of animals.
27	<i>Kigelia pinnata</i> (Jacq.) DC.	Bignoniaceae	Balamkhira	Fruit juice (5 ml) is mixed in a cup of water and it is given orally twice in a day for 3 days to cure stomach disorder.
28	<i>Madhuca longifolia</i> (J. Koeing) Macbr. var. <i>latifolia</i> (Roxb.) Chevalier	Sapotaceae	Mahua	Decoction of bark (10 ml), mixed with a glass of water, is given orally twice in a day for 3 days to cure stomachache.
29	<i>Mucuna pruriens</i> (L.) DC.	Fabaceae	Kevanch	A teaspoonful of sun-dried powder, mixed with a glass of water, is given orally once daily for 7 days to remove intestinal worms.
30	<i>Nyctanthes arbor-tristis</i> L.	Oleaceae	Harsingar	Leaf juice (5 ml) mixed with a cup of water is given orally twice in a day for 20 days as a cure for excessive thirst and loss of weight caused by diabetes.
31	<i>Plumbago zeylanica</i> L.	Plumbaginaceae	Chitrak	A teaspoonful of sun-dried root powder is diluted in a cup of boiled water to make a paste and the paste is externally applied twice in a day on affected area for 3 months to cure leukoderma.
32	<i>Pongamia pinnata</i> (L.) Pierre	Fabaceae	Karanj	Seed oil is applied twice in a day for one month on the affected area to cure rheumatism.
33	<i>Pterocarpus marsupium</i> Roxburgh	Fabaceae	Beeja	A cup of filtrate, which is filtered from the water used for soaking its bark for a night, is consumed on empty stomach once in a day for 3 months to cure diabetes.
34	<i>Ricinus communis</i> L.	Euphorbiaceae	Rendi	Leaves are boiled in water and the water is used for bathing once in a day for one month to cure scabies.
35	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arn.	Combretaceae	Arjun	Leaf juice (5 ml) mixed with a cup of water is given orally twice in a day for 15 days to cure wart.

S.No.	Botanical name	Family	Local name	Uses
36	<i>Terminalia bellirica</i> (Gaertn.) Roxb.	Combretaceae	Bahera	Fruit decoction (100 ml) is given orally once daily in the morning before breakfast for a week to cure piles.
37	<i>Ziziphus nummularia</i> (Burm. f.) Wight & Arn.	Rhamnaceae	Jharberi	A teaspoonful of root paste (10 ml), mixed with a cup of water, is given orally for easy delivery.

Table 1.
Ethnomedicinal uses of plants by Baiga tribe in Amarkantak region.

3. Results and discussion

The ethnobotanical research reports 37 plant species belonging to 35 genera and 28 families used for curing various diseases by the Baiga tribes in the Amarkantak region. The representing plants are mostly used to cure various diseases viz. menstrual disorder, piles, sore throat, respiratory disorder, haematuria, miscarriage, jaundice, fever, insanity, leucorrhoea, bleeding during pregnancy, spermatorrhea, infertility in women, abortifacient, Motiabind, scorpion bite, wounds of animals, stomach disorder, intestinal worms, diabetes, leukoderma, rheumatism, scabies, wart and easy delivery. The presence of such a large number of medicinal plants indicates that the area has a very rich diversity of medicinal plant species and is a site for different indigenous knowledge. The present ethno-medicinal information provided in this paper, is compared with well-known Indian medicinal literature [12–14]. The result of the present study continues to play a vital role in the healthcare system of the tribal people and paves the way for the development and discovery of new drugs.

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Conflict of interest

The author declares no conflict of interest.

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