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Research Article

Folk-lore uses of *Achyranthes aspera* L. among tribal and rural people of Madhya Pradesh, India in the treatment of women ailments

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Abstract

Madhya Pradesh sustains a very rich traditional medicinal plant wealth and inherits unique plant and animal communities. *Achyranthes aspera* L. belonging to family Amaranthaceae, commonly known chirchita (Hindi), apamarga (Sanskrit), aghedi (Gujarati), apang (Bengali), nayurivi (Tamil) and kalalat (Malyalam). The objective is to collect scattered scientific information of the herb used by the tribal and rural people of Madhya Pradesh in the treatment of women disorders. Field and survey work was made after carefully planned trips to collect the folk lore uses of the selected plant species by the tribal and rural people of Madhya Pradesh. The claims were gathered by interviewing the tribal and rural people of the study area. Attempts were made to verify the efficacy of claims with actual beneficiaries, although this was not possible in all cases due to social customs.

Key Words: *Achyranthes aspera*, Folk-lore, Tribes, Madhya Pradesh

Introduction

Medicinal plants have always been the principle source of medicine in India since ancient past and presently they are becoming popular throughout the developed countries. Besides, they also play an important role in the lives of tribal and rural people, particularly in remote part of developing countries. Obviously, these plants help in alleviating human suffering. The ethnic and rural people of India have preserved a large bulk of traditional knowledge of medicinal uses of plants growing around them. This knowledge is handed down to generations through word of mouth and is extensively used for the treatment of common diseases and conditions. The indigenous method of preparation maintains the purity of the drug. Furthermore, traditional folk healers treat with kindness, grace, patience and tolerance, which play a vital role in healing process today.[1] During the present investigation it has been found by the authors that there are number of plants which are used by the ethnic and rural people of the region in curing various ailments and till date no any proper documented work has been performed in the selected species in the study area with proper citation and hence the present work was conceived by us to explore the hidden uses and to conserve the species.

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Chirchira has occupied a pivotal position in Indian culture and folk medicine. It has been used in all most all the traditional system of medicine viz., ayurveda, unani and sidha. From the ancient time the tribal, rural and aboriginal people of our country commonly use this herb in various disorders. Chirchira, botanically known as *Achyranthes aspera* Linn. (*A. canescens* R Br., *A. argentea* Decne, *A. grandifolia* Moz, *A. obovata* Peter and *A. repea* L.) belongs to family Amaranthaceae (Fig. 1). In the country it is known by different names such as chirchita (Hindi), apamarga (Sanskrit), aghedi (Gujarati), apang (Bengali), nayurivi (Tamil) and kalalat (Malyalam). It grows as wasteland herb everywhere. Since time immemorial, it is in use as folk medicine. It holds a reputed position as medicinal herb in different systems of medicine in India. [2]

According to Ayurveda, it is bitter, pungent, heating, laxative, stomachic, carminative and useful for the treatment of vomiting, bronchitis, heart disease, piles, itching abdominal pains, ascites, dyspepsia, dysentery, blood diseases etc. The plant has been mentioned in manuscripts of Ayurveda and Chinese medicines. In Ayurveda, two varieties, red and white are mentioned. In Sanskrit, synonyms describe this as a rough flowered stalk. It is described in 'Nighantas' as purgative, pungent, digestive, a remedy for inflammation of the internal organs, piles, itch, abdominal enlargements and enlarged cervical glands. Hindus used ashes for preparing caustic alkaline preparations. The diuretic properties of the plant are well known to the natives of India and European physicians. Different parts of the plant form ingredients in many native prescriptions in combination with more active remedies.

The plant is used by the various tribal communities of India in the treatment of various disease and disorders, keeping this view the present work was conceived to explore the folk lore and traditional uses of this plant in the management and treatment of women ailments.

Research Design and Methodology

The plants were collected by the investigator from the different study sites of Madhya Pradesh viz., Vindhya Region, Malwa Region, Budelkhand Region and Nimar Region during month of July-2012 to September-2012. Extensive survey work was made after carefully planned field trips (as per method adopted by Dwivedi 2003)[3]. During the field trip personal interview was made between the author and tribes of the region. The folk lore uses of the plant were collected from the local informants selected. The present investigation was carried out by

well designed questioner[4-5]. The survey was based on open ended questions. The questioner tool was well discussed with tribal and other people in their local language. Data regarding conservation were made as per plan suggested.[6-7]

Study Area

The present investigation has been carried out in the 32 remote places of Madhya Pradesh (Table 1), (Fig. 2 & 3) scattered over four regions. For a proper and orderly study, the study sites were selected considering the population and density of selected species. The local informants selected was Village farmers, Old persons, Hakims, Vaidhayas, Tribes, Peoples working on field, Ayurvedic doctors and Experts in the field of Herbal Medicine.

Table 1: Selected study area of Madhya Pradesh

S/No.	Region	Remote Places	No. of Sites Visited	Visited Area
1.	Vindhya Region	Rewa, Satna, Sidhi	5	110 km
2.	Malwa Region	Indore, Dewas, Shajapur, Ujjain	10	150 km
3.	Budelkhand Region	Sagar, Mandla, Jabalpur, Panna	9	90 km
4.	Nimar Region	Khargone, Dhamnoad, Dhar	8	80 km

Folk-lore uses

Direct discussion between the authors and different informants were made and the uses of the plant was recorded (Table 2).

Status

The status of the species of the study area has been established and author tried to gather the information as per method suggested.[6-7] (Table 2).

Conservation Strategies

Conservation strategies of biodiversity with special reference to threatened herbs have been adopted as mentioned by the tribes of the study area. The works of eminent scholars have been referred for this purpose[6-7]. The conservation strategies of the plants are mentioned (Table 2).

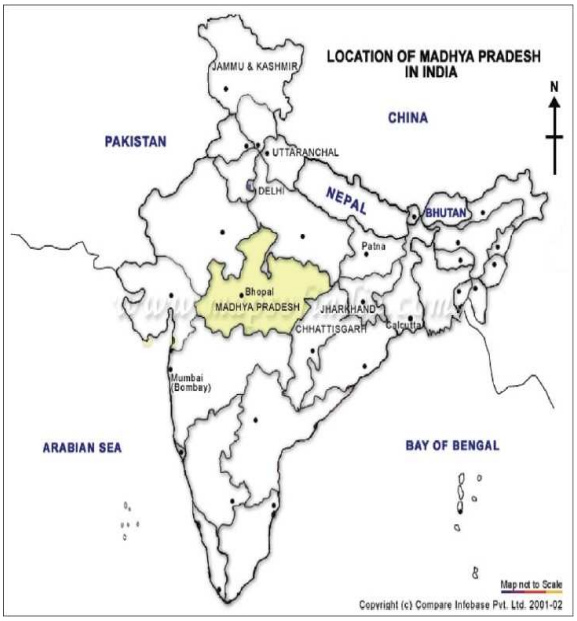

Fig. 2: Location map of Madhya Pradesh in India

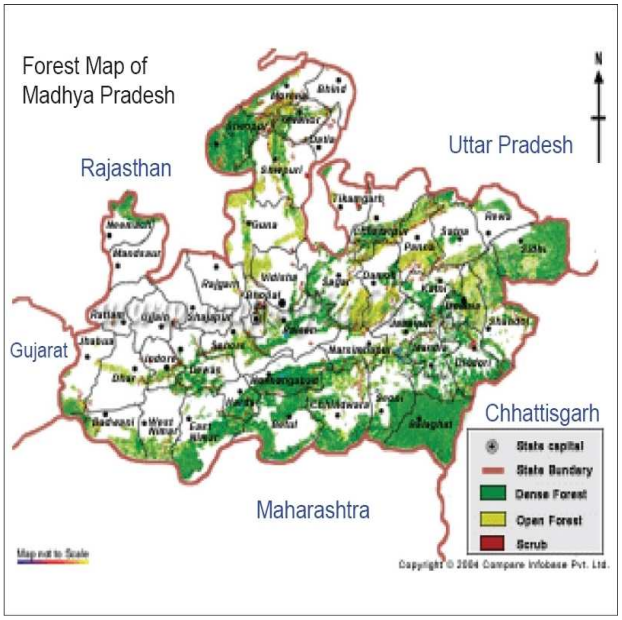

Fig. 3: Forest map of Madhya Pradesh

Result and Conclusion

In every ethnic group there exists a traditional health care system, which is culturally patterned. In rural communities health care seems to be the first and foremost line of defence. The WHO has already recognized the contribution of traditional health care in tribal communities. In the present work authors have collected and gathered the hidden information of *Achyranthes aspera* Linn. from different study sites of Madhya Pradesh, India in 32 remote places which were used in the treatment of women ailemts (Table 1). It elicits on all the aspects of the herb and throws the attention to set the mind of the researchers to carry out the work for developing its various formulations, which can ultimately be beneficial for the human beings as well as animals. During the course of present investigation a well documented survey with the approved questioner viz., informants, local name, part used, status of species, disease, method of preparation and frequency of administration of medicine, was designed to explore the folk lore of the herb in the treatment of women disorders. It was concluded from present work that the herb is locally known as chirchira and various part such as root, leaves, stem, and whole plant were used in the treatment by the various informants selected in different doses and duration along with specific method of preparation (Table 2). Further the status of the species was also recorded which conclude that the species is very common but found in wilds state and going to endangered in some the study sites, therefore, there is urgent need of conservation of the species

Acknowledgement

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Fig. 1: *Achyranthes aspera* Linn.

Table 2: Observation of questioner tool for *Achyranthes aspera* Linn. from selected study sites of Madhya Pradesh, India

S/No.	Tools of Investigation (Questioner)	Inference			
		Vindhya Region	**Malwa Region**	**Budelkhand Region**	**Nimar Region**
1.	LN	Chirchira	Apmarga	Chirchirta	Apmarg
2.	PU	Leaf, Root, Stem	Root, Leaf	Leaf	Leaf
3.	D/MOP/FD	**In Abortion** A thin paste is obtained by grinding the inflorescence in a mortar and pastel with sufficient quantity of water and applied to external genitalia. Two ml decoction obtained by boiling fresh root in water is introduced in vagina to terminate the pregnancy. **Amenorrhoea** Three ml leaf decoction is given orally once on empty stomach before sunrise for fifteen days. The therapy is reported to be more effective in women aged between 18-28 years. **Dysmenorrhoea** Three ml fresh leaf extract is given orally twice a day for seven days. The therapy is started on first day of beginning of menstrual cycle and repeated for five to seven consecutive cycles.	**In labor pains** A thin paste is obtained by grinding fresh roots with sufficient quantity of water in a mortar and pastel. The paste is applied to external genitalia. **Menoxenia (abnormal menses)** Three ml fresh leaf decoction is administered orally thrice a day for seven days. The therapy is started on first day of beginning of menstrual cycle and repeated for five consecutive cycles. This therapy is prescribed when the duration of menstrual cycles is irregular.	**Hemorrhage during pregnancy** Two to three ml aqueous decoction of chopped fresh leaves is given orally twice a day. The treatment is continued till complete cure is obtained. **Post-partal hemorrhage** Three ml aqueous decoction of fresh leaves is given orally twice a day for seven days. Dose can be altered according to the frequency and amount of blood loss. The treatment can be continued beyond seven days since no side effects of this therapy are reported. **Infertility in women** Two ml decoction of root and stem is administered orally thrice a day for three months. Younger women respond better to this therapy.	**Post-abortion abdominal pain** Three ml fresh root extract is administered orally once a day for seven days or till complete cure is achieved. **Prolonged menstrual flow** Three ml leaf extract mixed with a little curd is administered orally twice a day for seven days. The therapy is started on first day of beginning of menstrual cycle and repeated for five consecutive cycles. **Leucorrhoea** Three ml fresh leaf extract mixed with a little curd is given orally before sunrise for twenty-one days.
4.	SS	C/W	VU/CE	C/W	R/EN
5.	CS	In-situ and Cultivation	In-situ & Ex-Situ	Cultivation in fields	In-situ & Ex-Situ

Abbr. *I=Informants, LN= Local Name, PU= Part Used, D=Disease, MOP=Method of preparation, FD=Frequency of administration of medicine, SS=Status of species, CS= Conservational strategies, OD=Once in a day, BD=Twice in a day, R=Rare, VU, Vulnerable, W=Wild, EN=Endangered, C=Common, CE=Critical Endangered*