RESEARCH ARTICLE

Traditional herbal remedies practiced by the herbal healers in the tribal regions of Maharashtra-India

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ABSTRACT

Since the origin of human race on this earth tradicinal medicines have greatly contributed towards quality health care of rural and tribal communities. During the ethanobotanical survey of the area under study, emphasis was given to collect information from traditional herbal healers i.e. Local medicine men, Mukhia or Mhorkyas of village, Bhagat, Vaidyas etc. on the sources and uses of indigenous medicinal plants in Northern and Western districts of Maharashtra. The indigenous knowledge of local herbal healers and plants used for the treatments of various ailments were collected through questionnaire and personal interviews. This communication presents information on medicinal uses of 33 species belonging to 32 genera and 24 families of Angiosperms and Ferns. Among the Angiospermic families Euphorbiaceae is dominant one with 4 species followed by Fabaceae and Loranthaceae of Angiospems and Cheilanthaceae of Pteridophytes with 2 species each. Present study provides novel reports of herbal remedies which have not been reported earlier or mode of administration differs from earlier report.

Keywords: Traditional herbal remedies, herbal healer, North-West Maharashtra.

INTRODUCTION

Traditional medicines are the ways used for protection and restoration of health that existed before the arrival of modern medicines. The universally accepted fact is that most of the populations of rural and tribal communities in various developing countries around the world depend on traditional medicines for primary health care and the work force represented by practitioners of traditional medicine i.e. herbal healers is a potentially important human resource for the delivery of health care. The herbal products today symbolize safety in contrast to the synthetics that are regarded as unsafe to human and environment

and therefore plants are of great importance to the health of individuals and communities. In India, since ancient times, drugs of herbal origin have been used in traditional systems of medicines such as Ayurveda, Siddha, Unani and folk (tribal) medicines. Among these systems, Ayurveda is most developed and widely practiced in India. Ayurveda (1500-800 BC) has been an integral part of Indian culture and about 8000 herbal remedies have been mentioned in it. However, Charak Smahita and Sushruta Samhita have well documented medicinal properties and uses of 1100 and 1200 plant species respectively. Indian Materia Medica has given an account of 3500, medicinal plants. There is mention in Indian pharmacopoeia that more than 7000 plants are used for their medicinal uses in various traditional systems of medicines such as Ayurveda, Homoeopathy, Unani, Siddha etc. In India it is estimated that out of *ca* 16000 species of flowering plants occurring in the country, at least 7500 species are used for medicinal purposes (Padhey and Tiwari, 1991). In recent years medicinal plants in general and traditional medicine sources in particular, have attained much importance, in view of side effects of allopathic medicines and environmental pollution. The World Health Organization has reported that over 80% of World's population relies on traditional forms of medicines, largely plant based, to meet the health care needs (Puspangadan, 1995). Tribals utilize many plant species, occurring wild, for making herbal preparations for health practices in the treatment of various human ailments. These traditional knowledge users discovered such uses by trial and error methods. This knowledge is being passed from one generation to next and on the basis of their traditionally inherited knowledge, they have developed their own Pharmacopoeia, which has become treasure trove and cultural heritage of our nation. It is necessary to prepare and preserve the digital data base of the traditional knowledge for the benefit of present and future generation.

In the recent years the plants used as traditional medicines have become the source of income, employment and business, not only for tribal communities but also for rural and urban people. Many plant species, for crude drug, are over exploited for commercial purpose. It is urgent need of the hour to collect and preserve this information as data base for the use of coming generations. Though in India, including Maharashtra, good amount of published literature (Chaudhary, 1995; Desale *et al.*, 2013; Jain, 1981 and 2001; Kamble and Pradhan, 1980; Kamble *et al.*, 2008; 2009; 2010; Malhotra and Murthy, 1973; Padhye and Tiwari, 1991; Puspangadan, 1995; Rajput and Yadav, 2000; Tillu *et al.*, 1998; Tribhuvan and Peters, 1992; Upadhye *et al.*, 1994; Vartak and Gadgil, 1980 and Yadav and Bhambare, 1989) is available on various branches of ethnobotany, especially on plants of ethnomedicinal importance but there are few lacunae also. Therefore to fill up the lacunae and provide information to update data bases, the present studies on traditional medicines used by the herbal healers in the tribal regions of Maharashtra was undertaken.

MATERIALS AND METHODS

An ethnomedicinal survey was carried out to collect information on indigenous plants used as traditional medicines by the herbal healers in the tribal regions under study. A questionnaire was prepared and before interviewing the knowledge providers prior 'Informed Consent' was sought from them. During the field visits, the information on the medicinal uses of plants was collected from herbal healers i.e. Mukhia or Mhorkya, local medicine men called 'Vaidu' and other knowledgeable persons practicing herbal medicines in the tribal regions at Warandha Ghat, Maval, Khadakwasla, Junnar, Taleran, Bheemashankar, Thakurwadi, Ambegaon in Pune District; Kalwan, Sakurpada in Nashik District; Khopoli, Nagewadi, Wanganpada, Ramkhind, Kashele, Jawahar, in Thane district; Adavad, Unapdeo in Jalgaon District; Mahad, Birewadi in Raigad District; Sarangkheda, Leghapani, Kundipada, Toranmal in Nandurbar District and Ranipur, Shivapur in Dhule District of Maharashtra. More than 35 persons of various tribes including 30 herbal healers, forest officials working on ethanomedicines and other informers were contacted, interviewed and data was recorded in a specially formatted questionnaire. Representative list of herbal healers and other persons contacted is as follows.

1. Pahadsing Naik- Toranmal- Medapada- Nandurbar.
2. Chandersing Naik- Leghapani- Nandurbar.
3. Sayana Khetya Pawra- Leghapani- Nandurbar. (Pawra)
4. Vechan Pawra- Jalod- Dhule.
5. Nitin V. Ahivrao- Forest Guard- Shahada- Dhule.
6. S.H. Patil- Deputy Conservator of Forest- Shahada- North Dhule.

7. Kandya Dhuma Bhil-Unapdeo- Jalgaon.
8. Moru Hari Thorad- Nagewadi- Raigad (Mukhia).
9. Manter Gangaram Lokhande- Ramkhind- Thane. (Warli)
10. Balu Dhakal Bhoye- Vanganpada- Thane. (Warli)
11. Vinayak Rashu Kakad- Vanganpada- Thane (K). (Warli)
12. Shaikh Bhashir Shaikh- Haider (Vaidu)-Adavad-Jalgaon.
13. Walku Hari Thorad- Nagewadi – Raigad.
14. Shaker Ladkya Chipat (Bhagat)-Raitali- Thane.
15. Raghya Chaitya Sutar (Bhagat)- Bhimashankar-Pune.
16. Dhanraj Sonu Bagul - Sakurpada - Nashik (Mhorkya).
17. Parashram Ramu Bagul-Sakarpaa- Nashik (Mhorkya).

The tribal informers many times accompanied us in the field and helped in locating and identifying the plants in the field and collected specimens were further confirmed with the help of local floras at the Herbarium of Botanical Survey of India, Western Circle, Pune. Herbarium of voucher plant specimens have been deposited in the Herbarium of Botany Department of YashwantraoMohite College, Pune.

RESULTS AND DISCUSSION

The analysis of data revealed that 33 species belonging to 32 genera and 24 families of Angiosperms and Ferns are the novel reports of the traditional medicines used by the herbal healers (**Table 1).**

Table 1: Details of plants used in traditional medicines.

Sr. No.	Botanical Name (family) Local /Ayurvedic Name	Disease/ Ailments Treated,	Plant part/s used and administration of a drug
1	*Adiantum philipense* L. (Adiantaceae) Hansraj	Rheumatism	Oil prepared from roots and seasoned in mustard oil and kerosene with pepper and onion is used for massage.
2	*Ailanthus excels* Roxb. (Simaroubaceae) Maharukh	Earache (Otalgia)	Lukewarm juice of bark is used as ear drops in earache.
3	*Amarathus spinosa* L. (Amarantaceae) Katemath	Kidney stone/ urinary trouble	When stem is burnt ash is left behind. 1-2-gm of ash powder with water is taken internally for1-2 weeks for removing kidney stone.
4	*Amorpophalus commutatus* (Schott) Engl. *(*Araceae*)* Magarikand	Scabies/ Skin Disease	5 gms of corm is crushed and swallowed ones a day for 1to 2 weeks.
5	*Anogeissus latifolia* (Roxb. ex DC) Wall. ex Guill & Perr. (Combretaceae) Dhawada	Prameha (Urinary trouble)	15 ml decoction of heart wood is given twice a day for a week, to get rid of Urinary trouble
6	*Balanites aegyptiaca* (L.) Del. (Balanitaceae) Hinganbet	Cough	One fruit is powdered and one teaspoonful powder is taken twice a day for 2 to 3 days.
7	*Baliospermum montanum* (Willd.)Muel- Arg. (Euphorbiaceae) Danti	Jaundice	1-2 gm root powder with 3-6 gmjagary is given once a day for 5-6 days, to get relief from jaundice.
8	*Butea monosperma* (Lam.)Taul (Fabaceae) Palas	Leucorrhoea	In leucorrhoea about 5 gms of each of leaf powder and candy with milk is given once day for 2-3 week.
9	*Cassia fistula* L. (Caesalpiniaceae) Bahava	Jaundice	Fruit pulp in amla juice is taken once a day for 4-6 days.
10	*Cassitha filiformis* L. (Lauraceae) Garwel	Snake bite	Infusion of aerial root and pendulous branches is given once or twice only. Vomiting takes place and poisonous effect is removed.

Table 1: Continued...

Sr. No.	Botanical Name (family) Local /Ayurvedic Name	Disease/ Ailments Treated,	Plant part/s used and administration of a drug
11	*Cheilanthes albomarginata* Clark (Cheilanthaceae) Morjiva	Chest pain	To get relief in chest pain one glass of decoction of whole plant taken once or twice a day for 3-5 days.
12	*Cheilanthes farinosa* (Forsk.) Kaulf (Cheilanthaceae) Morjiva	Sexual weakness	Whole plant decoction or powder is taken with water or milk once a day for 2-3 weeks which act as a tonic.
13	*Costus speciosus* (Koenig) Sm (Zingiberaceae) Peva **(Fig.4.)**	Rheumatic Arthritis	Paste of rhizome is applied externally, which gives relief in Rheumatic arthritis.
14	*Cuscuta reflexa*Roxb. (Cuscutaceae) Amarwel	Analgesic	Paste of plant is applied on aching part of body.
15	*Dendropthoe falcata* (L.f.) Etting (Loranthaceae) Menda **(Fig.2.)**	Asthma	10 ml of flower juice is given twice or thrice a day for 3-4 days or till relief.
16	*Diplocyclos palmatus* (L.) Jeffray (Cucurbitaceae) Shivlingi	To conceive male child	After one month of pregnancy about 3-5 gm seed powder in cupful of milk is taken continuously for 8 days.
17	*Dolichondrone falcate* (Wall.ex DC) Seem. (Bignoniaceae) Medsinghi **(Fig.6.)**	Wound	Oil cooked with bark is applied on wounds.
18	*Drypetes roxburghi* (Wall.) Hurus (Euphorbiaceae) Putranjiva	Eruptive boils	Paste of seed kernel is applied locally.
19	*Eulophia ramentacea* Lindl.ex. Wight (Orchidaceae) Kukadkand	Tonic	One laddu of tuber powder is made and with one cup of milk is taken once a day for 10-15 days.
20	*Euphorbia ligularia* Roxb. ((Euphorbiaceae) Sabar	Caries(teeth decay)	In teeth decay chewing of root gives relief in 3-4 days
21	*Ficus religiosa* L. ((Moraceae) Pimpal	Contraceptive	Before one week of menses 10 – 15 receptacles are taken along with local liquor
22	*Grewia tillifolia* Vahl. (Tiliaceae) Kharmati, Dhaman	Kaphaja prameha (Urinary trouble)	Half cup decoction of bark is taken once a day for 4-6 days, in urinary trouble.
23	*Hygrophila schulli* (Buch-Ham.) Mrs. & S.M. Almeida. (Acanthaceae) Talimkhana **(Fig.5.)**	Gout	50 ml decoction of whole plant is given once a day for 3-4 days.
24	*Ipomoea mauritiana* Jaeq. (Convolvulaceae) Bidarikand	Sexual strength	Tuber churn with milk and ghee is taken for a week.
25	*Jatroph acurcas* L. (Euphorbiaceae) Parshaerrand	Muscular pain	Bark powder spread on affected part and wrapped with cloth.
26	*Lagerstroemia parviflora* Roxb. *(*Lythraceae*)* *Lendya*	Kidney stone/ urinary trouble	Roots are crushed and 1-2 gms are swallowed once a day, till you get rid of kidney stone.
27	*Lygodium flexuosus* (L.) Sweet (Lygodiaceae) *Ishwarjit* **(Fig.7.)**	Jaundice, Anemia	One teaspoon root powder is taken with milk or water once or twice a day for 2-3 weeks.

Table 1: Continued...

Sr. No.	Botanical Name (family) Local /Ayurvedic Name	Disease/ Ailments Treated,	Plant part/s used and administration of a drug
28	*Mimosa pudica* L. (Mimosaceae) Lajalu	Epilepsy	2 – 3 drops of juice of whole plant is put in the nose once a day for 3-4 weeks.
29	*Pongamiapinnata* (L.)Pierre (Fabaceae) Karanj	Diabetes	1 gm flower powder with 3 ml honey is given twice day till you get relief.
30	*Remusatia vivipara* (Roxb.) Schott. (Araceae) *Piparkand* **(Fig.1.)**	Joint pain	Paste of tuber is applied on joint once a day for 5-6 days.
31	*Ruellia tuberosa* L. (Acanthaceae) Konsuda	Abortion	Paste of 1 – 2 inch long pieces of roots is inserted in vagina and allowed to be there for overnight. It causes bleeding and fetus is expelled out.
32	*Tricosanthu stricuspidata* Lour. (Cucurbitaceae) Kaundal	Contraceptive	About 10 gm of seed powder is given with water once a day for consecutive five days after menses
33	*Viscum articulatum* Burm.f (Loranthaceae) **(Fig.3.)** Hadsandhi	Bone Fracture	Paste of whole plant is applied on the fractured part and tied firmly.

Fig.1: *Remusetia vivipara* (Roxb.) Schott.

Fig.2: *Dendrophthoe falcata* (L.f.) Etting

Fig.3: *Viscum articulatum* Burm.f.

Fig.4: *Costus speciosus* (koen) J.E.

Fig.5: *Hygrophila schulli* (Buch-Ham) S.M.

Fig.6: *Dolichondrone falcate* (Wall.ex DC) Seem

Fig.7: *Lygodium flexuosum* (L) Sweet

Among the Angiospermic families Euphorbiaceae is dominant one with 4 species followed by Fabaceae and Loranthaceae of Angiosperms and Cheilanthaceae of Pteridophytes with 2 species each. Further analysis showed that these tribes use- 4 species for general and sexual weakness/tonic, 3 for abortion and contraceptive, 3 for rheumatism/arthritis, 4 for kidney trouble/ urinary trouble and 1 each for snake bite, epilepsy, leucorrhoea, bone fracture, asthma, headache, chest pain, teeth decay, earache etc.

In the present survey, it is observed that there is prevalence of diseases like stomach disorders, headache, piles, bone fracture, leucorrhoea, dog bite, scorpion bite, snake bite, dysentery etc in the tribal communities. The prevalence of such diseases can be attributed to their unhygienic living conditions, poor quality of food etc. As the tribals live in remote villages, proper healthcare treatment is not available to the patients. However, they have to depend upon freshly prepared herbal preparations. The follow up of the treatment is also poor. The wild plant diversity, therefore, offers a cheap and effective source of medicine for tribal people. It is also observed that many of the plants used by the herbal healers have great potential which needs to pharmacologically screened, chemically analyzed for bioactive activities and standard herbal preparation for some of the diseases could be developed. There is also need for maintaining precise clinical records of the study of such herbal preparations.

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