



Some less Common Indigenous Herbal Remedies against Headache in Koudgaon Areas of Ahmednagar District (m.s.) India

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ABSTRACT

An extensive field surveys were arranged in Koudgaon hills areas to document the ethno-medicinal information regarding the use of wild and endemic ethno-flora against headache. The information presented here, is being collected from the native inhabitants community through verbal communications in an informal ways during the period from pre-monsoon 2009 to the post-monsoon 2011. The paper focuses on the ethno-medicinal uses of 22 plant species belonging to 21 genera from 17 families used for curing headache by the native inhabitants.

Keywords: Herbal remedy, Koudgaon hills, Traditional knowledge.

1. INTRODUCTION

Traditional ethno-botanical information has played a key role in the discovery of the recent herbal drugs, particularly when the literature and the orally transmitted data was not properly evaluated [1]. Ethnic, tribal and aboriginal populace residing in the forests, hamlets and villages have been remained dependant mainly on plant resources as a source of food or as a herbal drugs which is transmitted to them verbally from their forefathers [2]. Ethno-botanical as well as ethno-pharmaceutical information has found to be one of the most reliable approaches for discovery of several medicinally active herbal compounds [3-5].

Most of the ancient traditions and cultures are eroding fastly day by days and year after years as they are mostly oral in India [6]. Therefore effort should be made for the documentation and digitalization of medicinally important wild plants and the traditional knowledge associated with their herbal use [7]. According to World Health Organization, about 65–80% world's population in developing countries, depend upon the plants for primary

healthcare [8] due to the poverty and lack of access to modern medicine.

Use of these plants and their parts had contributed so much to the field of traditional medicinal science by fulfilling the social and cultural needs of the rural, aboriginal and tribal people. These plant based herbal drugs are affordable, more effective and easily available in the market and are manufactured with the traditional eco-friendly methods. They can work selectively and gently without disturbing the other system as compared to modern synthetic drugs.

2. STUDY AREA:

Being a beautiful panorama, Koudgaon hills is a part of the Garbhagiri hills famous for the rich ethno-floristic diversity, situated along north-eastern side of Ahmednagar tahasil at a distance of 16 km. It is located in between 18°27'33"N-18°27'58"N latitude and 73°76'48"E-77°78'57"E longitude. It covers an area of 1605.74 km² (i.e 619.98 miles²) and lies at an altitude of 534-553 meters from MSL (Mean Sea Level) The area under study has canopy of 27% mixed type of deciduous vegetation and

experiences an average rainfall of 518.6 mm/yr (2004) and The information which is collected from the local temperature range of 22°C to 38.8°C depend essentially inhabitants including traditional healers and local medicine upon plants for their primary healthcare^[9].It has remained men has been documented herewith to spread same in the inhabited to certain extent by the native inhabitants for other areas of the state and the countries. specific needs including headache cures.

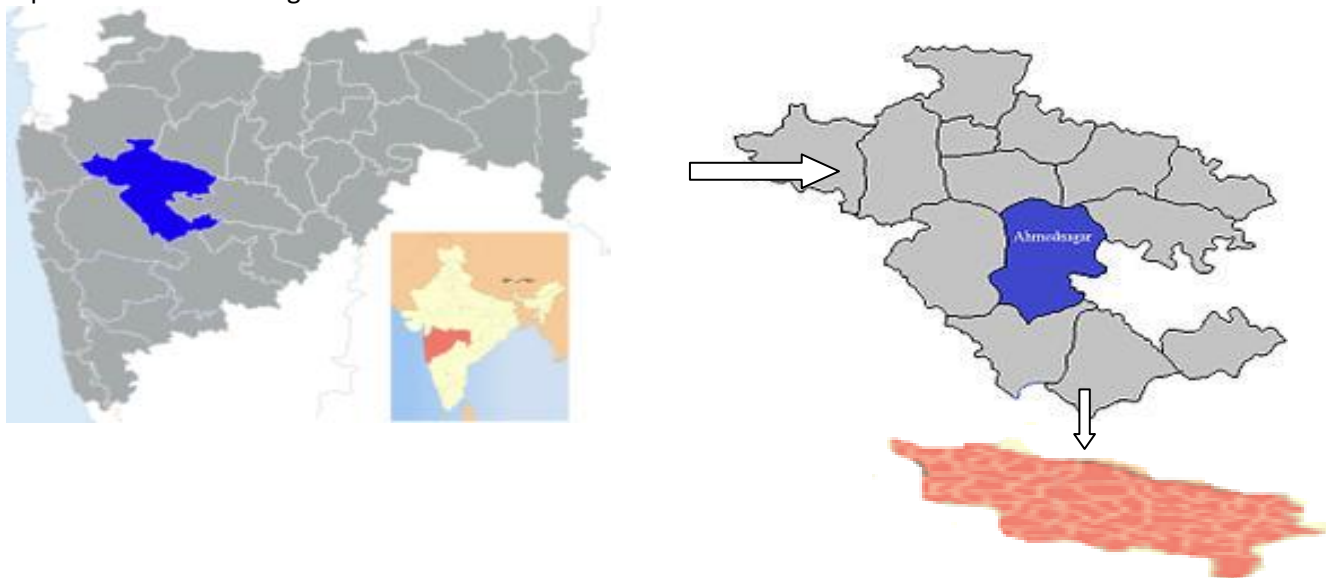


Fig 1: Study area Map-Koudgaon

Study area Map-Koudgaon

3. REVIEW OF LITERATURE:

Recent interest in ethno-medicinal explorations has increased due to the work^[10-16].

4. METHODOLOGY:

Frequent visits were arranged in the areas under the study, in the period from pre-monsoon 2010 to post-monsoon 2011 to collect the information on uses of the wild plant species hidden among the native inhabitants. The plant species were collected by knowing their vernacular names for preparation of voucher specimens with the help of informants as per plan^[17-19]. Same information was cross checked and confirmed through the verbal and informal communication with the traditional healers through verbal interviews. Botanical name and scientific name of the voucher specimens were confirmed through the help of BSI Pune (Western circle) and standard regional floras^{[20-}

^{21]}.They were preserved in Department of Botany, P.V.P. College Pravaranagar for future study and reference.

5. ENUMERATION/RESULT:

The taxa enumerated here are arranged alphabetically according to their botanical name with family (in parenthesis) followed by vernacular name, plant part used and traditional medicinal uses. Unknown or less known ethnobotanical uses are marked with an asterisk (*) sign.

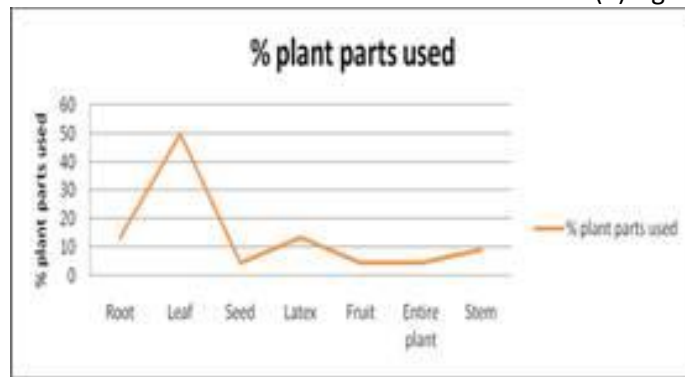


Fig 3: Percentage Plant Parts used

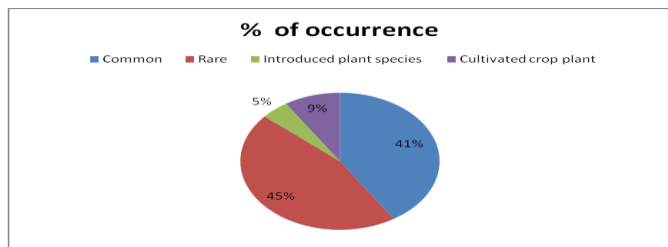


Fig 2: Occurrence wise analysis of the plant species

Table:1-Detailed analysis of the plant species used in headache cure:

Sr. No.	Botanical Name with family	Local Name	Habit	Occurrence	Part used	Traditional herbal remedy for headache cure
1.	<i>Adhatoda zeylanica</i> Medic. (Acanthaceae)	Adulsa	leaf	Rare	Shrub	Poultice from fresh leaves in luke warm coconut oil is massaged on forehead once at night up to 5-6 days.
2.	<i>Aegle marmelos</i> (Linn.) Corr. (Rutaceae)	Bael	leaf	Rare	Tree	*Fine paste from a handful of fresh leaves in sheep's is applied topically on the forehead once at night before sleep up to 6-8 days.
3.	<i>Aerva lanata</i> (Burm.f.) Juss. (Amaranthaceae)	Kapoor madhuri	Leaf	Rare	Herb	An extract from a handful of green leaves and tender shoots is boiled with a pinch of haldi (<i>Curcuma domestica</i>) powder in a cupful in sheep's milk and above preparation is massaged on forehead once a day at night up to 4-6 days.
4.	<i>Canscora diffusa</i> (Vahl.) R.Br. (Gentianaceae)	Lahan kilwar	Root	Common	Herb	2-3 tolas fresh roots cut into 1-2 cm long pieces, wore into leather thread and tied around the neck up to 10-12 days.
5.	<i>Cereus pterogonus</i> Lem. (Cactaceae)	Tridhar	Latex	Common	Shrub	*Fresh 2-3 tsp of latex is mixed in luke warm Til (<i>Sesamum indicum</i>) oil with a pinch of Haldi (<i>Curcuma domestica</i>) powder and this homogeneous mixture is applied on the joints and muscles once a day up to 8-10 days.
6.	<i>Cleome viscosa</i> Linn. (Capparaceae)	Piwali tilvan	Latex	Common	Herb	*Two to three tsp latex is boiled in a mixture of Til (<i>Sesamum indicum</i>) oil and coconut (<i>Cocos nucifera</i>) oil (Aatpav each) and the infusion is mashed on painful joints once daily at night up to 10-12 days.
7.	<i>Clerodendrum serratum</i> (L.) Moon. (Verbenaceae)	Bharangi Vent.	Root	Rare	Herb	*Paste from aatpav fresh and healthy roots with 1-2 tsp of neem (<i>Azadirachta indica</i>) leaves powder in a cup of coconut (<i>Cocos nucifera</i>) oil is applied locally once a day up to 9-12 days.
8.	<i>Commiphora wightii</i> (Arn.) Bhandari (Burseraceae)	Guggul	Latex	Introduced plant species	Tree	2-3 tsp of fresh latex is boiled with a tsp of sunth (<i>Zingiber officinale</i>) powder in a cupful in sheep's milk and above preparation is massaged on forehead once a day at night up to 3-4 days.
9.	<i>Cymbopogon citratus</i> (DC.) Stapf. (Poaceae)	Gawati chaha	Leaf	Cultivated crop plant	Herb	Paste from a handful fresh and young leaves with 4-6 lasun (<i>Allium sativum</i>) cloves and 1-2 tsp of Jeshthmadh (<i>Glycyrhiza glabra</i>) root powder in a cupful goat's milk is mashed on the forehead once a at night before bedtime up to 6-8 days.
10.	<i>Datura inoxia</i> Mill. (Solanaceae)	Safed-dhotara	Leaf	Common	Herb	*fine powder from ripen leaves is burnt certain quantity of tobacco (<i>Nicotiana tabacum</i>) and the fumes are inhaled by the men.
11.	<i>Erythrina stricta</i> Roxb. (Fabaceae)	Ran Pangari	Stem (bark)	Rare	Tree	An extract from aatpav fresh stem bark pieces in cow's urine is mixed with specific quantity of chandan (<i>Santalum album</i>) seed powder to prepare paste which is applied on forehead once a day at night before sleep up to 8-10 days.

12.	<i>Gmelina arborea</i> Roxb. (Verbenaceae)	Shivan	Fruit	Rare	Tree	About 100 gm of fresh and young fruits are crushed with with sunth (<i>Zingiber officinale</i>) powder in a little quantity of coconut milk and same paste is rubbed topically on the forehead once up to 3-4 days.
13.	<i>Jatropha curcas</i> L. (Euphorbiaceae)	Parashi Erand	Leaf	Common	Shrub	5-6 fresh and healthy leaves are crushed with 4-5 lasun (<i>Allium sativum</i>) cloves and the paste is massaged thoroughly on the forehead once a day at night half hour prior to sleep up to 5-6 days.
14.	<i>Lavendula bipinnata</i> O.Ktze. var. <i>rothiana</i> O. Ktze. (Lamiaceae)		Whole plant	Rare	Herb	Aatpav leaves and equal amount of tender shoots are crushed with 5-6 lasun (<i>Allium sativum</i>) cloves in a cup of luke warm Til (<i>Sesamum indicum</i>) seed oil and the paste is mixed in 3-4 tsp of Erand (<i>Ricinus communis</i>) seed oil and applied topically on forehead once daily up to 6-9 days.
15.	<i>Madhuca logifolia</i> (Koen.) MacBride. (Sapotaceae)	Moha	Seed	Rare	Tree	Seed extract from the plant is boiled in certain quantity of goat's milk for 2-3 minutes and a cup of same decoction is given orally once up to 5-6 days.
16.	<i>Occimum basilicum</i> L. (Lamiaceae)	Sabja	Leaf	Rare	Herb	Four to five fresh leaves crushed in 2-3 tsp luke warm Jawas (<i>Linum usitatissimus</i>)seed oil and resultant paste is applied on the forehead once a day at night half an hour before sleep up to 8-10 days.
17.	<i>Occimum tenuiflorum</i> L. (Lamiaceae)	Krishna Tulasi	Leaf	Cultivated crop plant	Herb	Tea from 5-6 masa (aprox. 5-6gm) of fresh leaves boiled with 1 tsp of coffee(<i>Coffea arabica</i>) powder,1-2 tsp of suagr and sunth (<i>Zingiber officinale</i>) powder in a glass of goat's milk for 1-2 minutes is taken as beverage once a day at night for 2-3 days.
18.	<i>Portulaca oleracea</i> L. (Portulacaceae)	Ghol	Leaf	Common	Herb	5-6 fresh leaves of are punctured with a sharp needle, smeared with warm Til (<i>Sesamum indicum</i>) oil and placed on painful forehead once a day at night before sleep up to 15-18 days.
19.	<i>Santalum album</i> Linn. (Santalaceae)	Chandan	Stem	Common	Tree	Paste from heartwood in water is applied thoroughly on forehead once a day in the morning for 15-18 days after bathing
20.	<i>Tridax procumbens</i> L. (Asteraceae)	Tantani	Leaf	Common	Herb	An extract from fresh and healthy leaves is boiled in a glassful water with 1-2 tsp of honey and the formulation is mashed on forehead once up to 6 days.
21.	<i>Vitex negundo</i> L. (Verbenaceae)	Kali Nirgudi	Leaf	Rare	Shrub	Water with fresh leaves boiled in it for 4-5 minutes is used for bathing in the early morning for 18-22 days to relieve headache.
22.	<i>Xanthium indicum</i> Koen. (Asteraceae)	Landga	Root	Common	Herb	*A tsp of root powder mixed in a cup of coconut milk with 1-2 tsp of sugar is given early morning in empty stomach for 6-8 days.

Abbreviations: tsp-tablespoon, tola-10 gm, a cupful-100ml, a handful -100 gm, a glassful-250 ml.

Plant part used	Root	Leaf	Seed	Latex	Fruit	Entire plant	Stem
No. of plant species	03	11	01	03	01	01	02
% plant parts used	13.63	50.00	4.55	13.63	4.55	4.55	9.09

Table 2- Plant parts used in number of plant species with their percentage:

Occurrence of the plant	Common	Rare	Introduced plant species	Cultivated crop plant
No. of plant species	09	10	01	02
% of occurrence	40.90	45.45	4.55	9.09

Table 3-Occurrence wise analysis of the plant species:

Habit of the plant	Herb	Shrub	Tree
No. of plant species	12	04	06
% of habit	54.55	18.19	27.27

Table: 4-Habit wise distribution of the plant species

6. DISCUSSION:

During the field visits (table:1) 22 plant species belonging to 21 genera from 17 families have been documented from area under the study. These plants are utilized traditionally by the native inhabitant's community for relieving certain kind of headache cures. Some of the plants are *Portulaca oleracea* (Ghol), *Occimum basilicum* (Sabja), *Tridax procumbens* (Tantani), *Jatropha curcas* (Parashi erand), *Morinda tinctoria* (Bartondi), *Canscora diffusa* (Lahan kilwar), *Pongamia pinnata* (Karani), *Gmelina arborea* (Shivan), *Madhuca langifolia* (Moha), *Cymbopogon citratus* (Gawati chaha), *Cereus pterogonus* (Tridhar), *Cleome viscosa* (Piwali tilvan) and *Vitex negundo* (Kali-Nirgudi) possess potential of better economic exploitation.

Since all these plant species are in use in more or less proportion throughout the world, have wide scope for bio-prospecting. Therefore it is our prime duty should be to protect, conserve and maintain it in a proper way for our future studies.

Out of the plants studied (table:2), majority of the preparations (i.e.11) are from leaves (50.00%) followed by roots and latex in three plants (13.63% each), stem in two plants (9.09 %) and seeds, fruit and entire plant in one plant (4.55% each) found to have headache curing property.

From occurrence wise analysis of the plants studied (Table:3), it has been found that ten plants are rare in occurrence (45.45%) followed by nine plants are common (40.90%), two plants are cultivated crop plants (9.09%) and remaining one plant is found to have introduced plant species occurrence. From above study (Table:4), it has been realized that majority of the plant species (i.e twelve) have herb habit (54.55%) followed with six plants with tree habit (27.27%) and remaining four plants have shrub habit (18.19%).

7. CONCLUSION:

Information collected from the area under the study, is located in Koudgaon Hills areas of Ahmednagar district. The traditional healers, local informants, vaidyas and hakims who reside in the forest and villages bordering the forest mainly depend on plant resources have rich traditional veterinary knowledge on medicinal values of the plants and their uses which transmitted to them verbally in an informal ways from their forefathers^[22].

Most of the traditional wealth of knowledge in India is eroding at faster rate due to loss of the ancient traditions and culture as they are mostly oral^[23]. Due to their continuous and progressive exposure to modernization, there is serious threat about extinction of such rich heritage of information in the coming time. Effort should be initiated for the documentation and computerization of useful medicinal plants and their traditional knowledge^[24].

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Conflict of Interest: None Declared