

Traditional health practices for reproductive disorders from Gadchiroli district, Maharashtra, India

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Abstract

Survey for traditional health practices of Gadchiroli district, Maharashtra was carried out during 2010-2012. The survey resulted in documenting health practices pertaining to 61 types of disorders and ailments. Information was collected from 84 local Vaidus. Out of these 9 are disorders and ailments of reproductive system for which about 31 treatments using 31 plant species were found to be in practice. Most of the treatments are for gynecological disorders.

Keywords – Gadchiroli district, Reproduction, Traditional health practices.

Introduction

Gadchiroli district lies between 18° 43' to 20°50' North latitude and 79°45' to 80°55' East longitude in the Deccan plateau (Plate 1). It is situated on eastern side of Maharashtra. The tribal population in this district is about 38.3% of the total population. The main tribal communities in this district are Gond, Madia, Pardhan and Kavar. The district is thickly forested. The area is economically and educationally backward. Despite several plans and efforts made by Government, there is no recognizable change in the status of area and its inhabitants. Because of poor educational and health facilities, most people are totally dependent on their traditional practices for health care.

Materials and Methods

Local medicine men were interviewed (Plate 2). Interviews were semi-structured with a combination of questionnaire, informal discussion with Vaidus, focus group discussion and personal interview were followed to get information about plant based health practices.

During the work it was observed that, many traditional health practices were producing desired results. Hence the attempt was made to document these practices systematically. Pharmacological literature survey was done to search the experimental proof for authentication of these practices. Field visits were made with these medicine men to collect the plant species used from field (Plate 3). Survey sheets were prepared carefully to record all relevant information. Written consent of vaidus were obtained with clear understanding that the information will be published. Relevant papers are deposited with ‘Amhi Amchya Arogyasathi’ (We for Our Health). Vernacular and tribal name of the plant is given and language is also mentioned in abbreviated form; Gondi ‘G’ and Chhattisgadhi ‘C’ in bracket, part used and mode of use were noted down. Local name/description of disease or disorder is also given along with modern medical terms. Correct disease diagnosis in modern terms was done with the help of Dr. Satish Gogulwar (M.B.B.S.). Plants were collected in flowering

Plate - 1 : Study Area



Map of Maharashtra showing Gadchiroli district



Map of Gadchiroli district showing different talukas

1. Kosbi, 2. Anjantola, 3. Karkapalli, 4. Mendha (Lekha), 5. Jambhali, 6. Yedaskuhi, 7. Zendevar,
8. Kurkheda, 9. Bole- palli, 10. Kotaldohu, 11. Virbaburaonagar, 12. Mosam, 13. Chandgad, 14. Kadholi,
15. Kharkada, 16. Gahanegata, 17. Gothangaon, 18. Saytola, 19. Desaignanj, 20. Lanjeda, 21. Wadegaon

stage, brought to laboratory and identified with the help of standard floras (Sharma *et al.*, 1996; Naik, 1998; Singh *et al.*, 2000; Singh *et al.*, 2001; Yadav & Sardesai 2002). Botanical names of genera and species are as per *www.theplantlist.org*. Herbarium specimens were prepared and are deposited in the Herbarium of Department of Botany, Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

Results and Discussion

Plant species, their parts used and the mode of use to treat reproductive disorders are enumerated below.

Leucorrhoea; *Pandhare pani angawar jane*

1. *Aegle marmelos* (L.) Corr., (Rutaceae), Bel; Mahaka (G).

5-10 gm root bark pounded in a cupful water

Plate - 2 : Informants



Miss. Minabai Kanne at Mosam



Mr. Lajuji Dhurve at Virbabura Nagar



Mr. Devaji Madavi at Yedaskuhi



Mr. Tularam Bogare at Anjantola



Mr. Siyaram Neware at Gothangaon



Sau. Suman Sontakke at Lanjeda

Plate - 3 : Medicinal plants



Woodfordia fruticosa (L.) Kurz.



Bauhinia variegata L.



Diplocyclos palmatus (L.) C. Jeffrey



Aerva lanata (L.) Juss. ex Schult.



Curcuiigo orchioides Gaertn.



Curcuma longa L.

- and allowed to soak overnight, squeezed and filtered through fine cloth to get half cup of decoction. This is given as single dose twice daily for 8-10 days on empty stomach.
2. ***Aerva lanata*** (L.) Juss. ex Sch., (Amaranthaceae).
Young whole plant is kept in cold water for about an hour. The infusion is collected and given as single dose twice daily for 14 days.
 3. ***Aloe vera*** (L.) Burm. f., (Liliaceae), Korphad; Dhurutkuwari(C).
Skin of mature leaf removed to get pulp. 2-3 tea spoonful of leaf pulp is mixed with half teaspoon of sugar candy and Cumin powder. Whole mixture given as a single dose twice daily for 3-5 days.
 4. ***Bauhinia variegata*** L., (Caesalpiaceae), Koylari; Kodyal (G).
10-15 gm fresh stem bark pounded in a cupful water, filtered through clean cloth and half cup of filtrate given twice daily for two days.
 5. ***Coccinia grandis*** (L.) Voigt, (Cucurbitaceae), Tondari.
Thumb sized thick roots selected and cut in to 2-3 inch pieces; rinsed with water ; 2-3 pieces are pounded in half cup of water and allowed to soak for an hour or so, then filtered through cotton cloth and is given as single dose twice a day for 7 days.
 6. ***Cocculus hirsutus*** (L.) W. Theob. (Menispermaceae), Washinvel.
Two handful (approx. 40 gm) of leaves are crushed and put into clean cotton cloth, squeezed and juice is collected. Half cup of filtrate is given orally immediately after extraction, twice a day for 4-5 days; every time freshly prepared juice is given.
 7. ***Curculigo orchoides*** Gaertn. (Hypoxidaceae), Kali Musali.
Approximately 5 gm of fresh root stocks are made into paste and given with buttermilk twice a day for 15 days.
 8. ***Curcuma longa*** L. (Zingiberaceae), Halad.
One entire inflorescence is crushed; mixed well with 50 gms of jaggary and made into pea nut size tablets. Two tablets given twice daily (on empty stomach in morning and evening) for 14 days.
 9. ***Cyperus rotundus*** L. (Cyperaceae), Shikara.
10- 20 gm of tubers are pounded in half cup of water and allowed to soak for half an hour. Filtered through cloth, whole filtrate is given as single dose twice daily for 7 days.
 10. ***Dalbergia sissoo*** DC. (Fabaceae), Shisam.
10-15 gm of stem bark pounded, soaked in one cup of water over night and filtered. The entire filtrate given as single dose in morning on empty stomach for 7 days.
 11. ***Ficus racemosa*** L. (Moraceae), Umbar.
15 -20 gm of dried pounded internal stem bark in a cup of water is allowed to soak overnight. Next day morning it is filtered through cloth. Whole filtrate is given as single dose once daily for 7 – 8 days on empty stomach.
 12. ***Sesbania grandiflora*** (L.) Pers. (Fabaceae), Hetta.
Handful of stem bark pounded in water and filtered. Half cup of filtrate is given for 5-7 days once a day.

13 ***Sida acuta*** Burm. f. (Malvaceae), Chikana.

Two plants are uprooted; 4 - 5 inches of basal parts of each root taken, pounded in half cup of water and filtered through cotton cloth. The filtrate is given as single dose, twice a day for 5 days.

14. ***Smilax zeylanica*** L. (Smilacaceae), Sherdire.

Two inch piece of root washed, pounded with water and filtered through cotton cloth. Filtrate given twice a day for 3-5 days.

Menorrhagia; *Lalpani angawar jane*1. ***Bauhinia racemosa*** Lam. (Fabaceae), Sehara (G).

50 gm of stem bark pounded in one glass of water (about 150 ml.), filtered through cotton cloth and half cup of filtrate given twice daily for seven days.

2. ***Butea monosperma*** (Lam.) Taub. (Fabaceae), Palas; Murad (G).

Handful (approximately 10-15 gm) petals are soaked overnight in a cup of water; filtered, mixed well with 10 gm. of candy sugar and given in early morning and evening on empty stomach twice a day for 7-8 days.

3. ***Hibiscus rosa-sinensis*** L. (Malvaceae), Lal Jaswand.

Fresh petals of four flowers made into paste, one teaspoonful of candy sugar powder added and mixed well. This is given as single dose twice a day for 7-10 days just before a week of menstrual period.

4. ***Woodfordia fruticosa*** (L.) Kurz., (Lythraceae), Dhayati, Lal Zilbuli; Dhawai (C.).

Handfull (approximately 10-15 gm) of dried flowers are soaked in a cup of water; about 5gm. of candy sugar added and filtered through cotton cloth. Half cup of filtrate is given once daily on empty stomach for 5-7 days.

Primary amenorrhea; *Masikpali na yene*1. ***Bombax ceiba*** L. (Bombacaceae), Katesawar; Sawali (G).

About 20 gm of fresh stem bark collected before sunset, washed, pounded in a cup of water, allowed to stand overnight and filtered through clean cloth. Half cup of filtrate given on empty stomach every day early morning for 4 days.

Lactation; *Balanpananantar doodh na yene*1. ***Asparagus racemosus*** Willd. (Liliaceae), Marbat; Hedavari, Narbhot (G) and Dasmulkanda (C).

50 gm of tuberous root is pounded with half cup of water and filtered. Whole filtrate is given as single dose to lactating mothers in the morning and evening twice daily for 15 days to increase milk secretion.

2. ***Euphorbia hirta*** L. (Euphorbiaceae), Dudhi.

Half handful mature twigs collected, inflorescence removed and twigs crushed. Small amount of jaggery added and mixed well to make into uniform paste. The paste is given as single dose, twice daily for 5-7 days.

Ovulation enhancement; *Garbhadharna hone karita*1. ***Diplocyclos palmatus*** (L.) C. Jeffrey, (Cucurbitaceae), Shivlingi.

Seven dried seeds given with milk at bed

time from fourth day of menstruation for 15 days twice a day. Repeated every month till conception.

2. *Nymphaea nouchali* Burm. f. (Nymphaeaceae), Kamal.

Two rhizomes pounded in a cup of water and filtered through muslin cloth. The filtrate is given twice a day for 14 to 28 days.

Inducing abortion; *Garbhapat honya karita*

1. *Carica papaya* L. (Caricaceae), Papai.

Latex from unripe fruit is collected and is kept in open plate, it slowly coagulate in a thick mass from which tablets can be made; pea nut size tablets are made. Two tablets at a time given twice a day for three days on empty stomach in the morning (This treatment is given only up to 3 months of pregnancy).

2. *Calotropis procera* (Aiton) Dryand., (Asclepiadaceae) Rui; Pundar (G).

Cut a thumb size thick stem of old plant, remove its skin and the stem is then inserted in uterus. The stem is kept like that for two days. Results positively in abortion. However, Vaidus are not willing to give this treatment as sometimes it may result even in death of the lady. The latex oozing out from the stem is supposed to be abortifacient; in fact the latex is toxic to the foetus.

Note - The information was told by a Vaidu and was made clear that now a days no one practices this method though they know it.

Spermatorrhoea; *Dhatjane*

1. *Acacia nilotica* ssp. *indica* (Benth.) Brenan, (Mimosaceae), Babhul.

5-10 gm of inner stem bark is soaked in two

cups of water overnight. One cup of filtered infusion given twice a day for 3 days in the morning on empty stomach. Dose is dependent on health of the person; if he is well built and strong the entire infusion is given as single dose.

2. *Cordia dichotoma* G.Forst., (Boraginaceae), *Shelwat*.

Fistfull (15-20 gm) of fresh stem bark pounded in a cup of water and filtered through cotton cloth. Half cup of filtrate is given twice a day for 3 days.

3. *Musa paradisiaca* L. (Musaceae), Kel.

5-10 gm of rhizome crushed, a pinch of allum powder added and mixed thoroughly. This is given twice daily for 3 – 5 days.

4. *Hygrophila schulli* (Buch.-Ham.) M.R. Almeida and M.S. Almeida, (Acanthaceae), Talimkhana.

10-15 gm of dried seeds are powdered, mixed with jaggery and made into peanut size tablets. Four tablets as a single dose given twice a day for 14 days.

Impotency; *Shukrajantunchi kamtarta*

1. *Borassus flabellifer* L. (Arecaceae), Tad.

5-10 seeds given to eat twice daily for 14 days.

2. *Withania somnifera* (L.) Dunal, (Solanaceae), Dhorgunj.

50 - 100 gms. of dried roots are made into powder; one teaspoonful of powder given twice daily with cup of milk for a month.

Note:- Pounding and soaking the plant parts is most common of medicine preparations. This provide the extracts of content to its fullness. In some cases material is only

soaked in cold water for specific period. This gives cold infusion, in both these method the composition of medicine does not change as some of the compounds are heat labile.

Discussion

Out of 84 Vaidus interviewed for documentation of traditional health practices of the region, only 23 Vaidus were found to treat reproductive disorders (Table 1). 31 plant species were found to be used for the treatments; 25 being used for gynecological and 6 for male disorders.

These days, many of the researchers are working to understand the efficacy of traditional practices/ethnic drug plants. Literature search revealed the experimental proof for the use of 11 species.

Withania somnifera root extract has shown marked improvement in sexual behavior of male rats (Ilayperuma et al., 2002). Ahmad et al., (2010) have shown the root extract to improve quality of semen and hormone level. It is also spermatogenic (Ambiye et al., 2013). Chauhan et al., (2011) proved seed extracts of *Hygrophila*

schulli to be spermatogenic and aphrodisiac.

Galactogenic activity of whole plant extract of *Euphorbia hirta* was proved by Blanc (1963). Traditionally tuberous roots of *Asparagus racemosus* are used to increase lactation in Ayurveda and also in Unani medicine. Gupta and Badri (2011) have experimentally proved that the tuberous roots are galactogogue. Out of 25 herbal drugs used in gynecological disorders 14 are used in leucorrhoea. Leucorrhoea is common disorder in tribal areas. The main reason behind is, unhygienic conditions in which tribal women live. Many of the herbs used to treat leucorrhoea are proved to be antimicrobial and antibacterial. The main causal organisms are *Candida albicans*, *Candida tropicalis*, *Candida krusei* and *Gardnerella* (a bacterium). The infection produces irritation, dysuria and itching. Some of the drugs reported in present study have shown the activities that definitely are effective in treating leucorrhoea. Antibacterial and antimicrobial activity of *Aegle marmelos* (Mazumder et al., 2006), *Aerva lanata* (Chowdhury et al., 2002), *Bauhinia variegata* (Kanak & Verma, 2012), *Curculigo orchoides* (Nagesh & Shanthamma, 2009) and *Sesbania grandiflora*

Table – I Details of Informants

Sr. No.	Name of Informant	Address	Age (in Year)	Practicing year
1.	Anusaya Chintaman Sahare	At. Po. Kosbi, Tq. – Armori	58	18 years
2.	Tularamji Vithuji Bogare	At. Anjantola, Po. Wadegaon, Tq. –Kurkheda	35	10-11 years
3.	Bapu Shamrao Zure	At. Karkapalli, Po. Mareda, Tq. – Chamorshi	55	28 years
4.	Bhavji Jogi Tofa	At. Mendha (Lekha), Po.-Dhanora, Tq. – Dhanora	52	20 years

Sr. No.	Name of Informant	Address	Age (in Year)	Practicing year
5.	Brijbai Ramchandra Gayakwad	At. Jambhali, Po. Korchi, Tq. – Korchi	62	19-20 years
6.	Dewaji Ganu Madavi	At. Yedaskuhi Po. Malewada, Tq. – Kurkheda	56	27 years
7.	Janibai Bhavaji Tofa	At. Mendha (Iekha) Po. Dhanora, Tq. – Dhanora	52	12 years
8.	Karibai Daulat Kallo	At. Zendeppar Po. Bhimpur, Tq. – Korchi	65	36 years
9.	Kashibai Mansaram Uikey	At. Kurkheda, Tq. – Kurkheda	68	28 years
10.	Keshar singh Madavi	At. Mendha (Iekha) Po. Dhanora, Tq. – Dhanora	63	25-26 years
11.	Kishu Kulmethe	At. Bolepalli Tq. – Etapalli	52	19 years
12.	Kukasabai Rajiram Kawado	At. Kotaldohu Po. Charbhathi, Tq. – Kurkheda	73	40 years
13.	Lalu Dattu Dhurve	At. Virbaburaonagar, Po. Haladwahi, Tq. - Chamorshi	63	35 years
14.	Minabai Lalu Kannake	At. Mosam, Po. Mosam, Tq. – Aheri	60	26 years
15.	Motiram Faguji Pardhan	At. Chandgad Po. Gothangaon, Tq. - Kurkheda	59	23 years
16.	Nanaji Rama Sonwane	At. Po. Kadholi, Tq. Kurkheda	69	31 years
17.	Nanaji Shrawan Kalwathe	At. Kharkada Po. Kadholi, Tq. - Kurkheda	49	16 years
18.	Punaram Mehru Tulavi	At. Gahanegata Po. Bethkathi, Tq. – Korchi	49	20 years
19.	Siyaram Maroti Neware	At. Po. Gothangaon, Tq. – Kurkheda	43	18 years
20.	Sukharam Ramaji Dhurve	At. Saytola Po. Andhali, Tq. – Kurkheda	69	30 yeras
21.	Sukhdeo Pundalik Uikey	At. Po. Desaiganj, Tq. – Desaiganj	79	49 years
22.	Suman Raoji Sontakke	At. Lanjeda, Po. Gadchiroli, Tq. – Gadchiroli	62	25 years
23.	Tanaji Kashiram Shende	At. Po. Wadegaon Tq. – Kurkheda	53	15 years

bark (Anantaworasakul *et al.*, 2011) are proved. Durate *et al.* (2005) found *Cyperus rotundus* to possess specifically anti-Candida activity. Anti-inflammatory activity of *Aegle marmelos* (Benni *et al.*, 2011) and *Dalbergia sissoo* (Mohammad and Kumar, 2009) might be providing some relief to the patient of leucorrhoea.

This clearly shows that drug plants used in traditional health practices have a great potential to develop new drugs.

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