

## **Ethnogaecological Uses of Plants by the *Lodha* Community of Paschim Medinipur District, West Bengal**

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**Abstract:** An ethnomedicinal study was conducted in ten villages of *Paschim Medinipur* district, West Bengal during 2012-2013 to collect information from traditional health healers/tribal communities on the use of medicinal plants for treatment of gynaecological problems among the women of the *Lodha* community. The tribal communities residing in this region are the *Santhals*, *Mundas*, *Lodhas*, *Bhumijs*, *Oraon* and *Kherias*. The present study enumerates plant 30 species belonging to 22 families used by the tribal communities and medicinal healers of *Paschim Medinipur* district, West Bengal in gynaecological problems of *Lodha* women. Each plant species has been listed alphabetically according to its botanical name, family, vernacular name, part(s) used, mode of preparation/administration.

**Key words:** Ethnomedicine • Gynaecological Disorders • Paschim Medinipur

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### **INTRODUCTION**

Traditional healthcare practices of indigenous people pertaining to human health are termed as ethnomedicine. World Health Organization has listed over 21,000 plant species used around the world for medicinal purposes. In India, about 2,500 plant species belonging to more than 1000 genera are being used in indigenous systems of medicine. Plants and plant-based medicaments are the basis of many of the modern pharmaceuticals we use today for our various ailments [1,2]. Ethnogaecology is emerging as a new branch which deals with the treatment of ailments among tribal women, for example, abortion, menstrual trouble, menopause syndrome, morning sickness, leucorrhoea, infertility, delivery problems, etc [3]. Millions of women all over the world suffer from several menstrual problems. Many ethnomedicinal studies have been conducted to study the role of phytotherapy in women's health and reproductive health problems [4-14]. Ancient ethnic communities around the world had learnt to utilize their neighborhood herbal flora for various curative as well as offensive purposes [15]. Pre-literate indigenous populations used plants that were available in their local environments to treat illness and promote health. Rural women of India commonly

experience gynaecological problems due to unhygienic living conditions, malnutrition and hard physical work, often even during pregnancy. Traditionally the tribal women prefer herbal medicines rather than modern medicines for menstrual trouble, conception disorders, birth control practices, sterility, abortion etc. In every village some women, locally known as '*Dhai*', specialized in phytotherapy of different gynaecological diseases and conditions using commonly available plants. Much of this wealth of knowledge is totally becoming lost as traditional culture is gradually disappearing [16]. The present study is an attempt to integrate the traditional ethnomedicinal knowledge of the tribal communities and traditional healers of *Paschim Medinipur* district, West Bengal pertaining to treatment of gynaecological problems of tribal women from the *Lodha* community.

### **MATERIALS AND METHODS**

Ethnobotanical data was collected through individual and Focus Group Discussion (FGD) interviews using semistructured open-ended questionnaires as proposed in standard literature[17]. Subjects were selected on the basis of their knowledge pertaining to the use of medicinal plants in tradition [18]. A total of 75 individuals

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(30-70 years) were interviewed during the survey including medicine men (*Ojha*), local *dhai*, elder villagers, plant collectors and forest dwellers belonging to *Lodha* community. Interview based field study and guided field work was done in which the taxonomic diversity, distribution, local names, parts of plants used in treatment of snake bite, preparatory methods and mode of administration of these plants were recorded [19]. Group discussion were made with the healers and local *dhais* to know their perception about the use of traditional folk medicines in gynaecological disorders of tribal women and their awareness about the conservation of phytodiversity. Plant collection was carried out by standard method [20]. Herbaria were prepared according to conventional herbaria technique [21]. All the voucher specimens were identified using relevant floras and standard literature [22-24] and deposited in the herbarium of the Department of Botany and Forestry, Vidyasagar University, *Paschim Medinipur*, West Bengal.

The collected plants were crosschecked by neighbouring herbalists and traditional medicinal healers. For each species the proportion of informants who independently reported the use of that particular plant in gynaecological disorders was assessed following.

## RESULTS

In the present study, 30 plant species from 22 families traditionally used in treatment of gynaecological problems by the *Lodha* community of *Paschim Medinipur* has been documented (Table 1). The plants have been enumerated alphabetically according to their scientific name, habit, local name, family, parts used, mode of preparation and medicinal uses. Among the reported plants there are various species of trees, shrubs and herbs. The dominant families recorded are *Fabaceae* (5 species of plants), *Euphorbiaceae* (4 species of plants), *Malvaceae* (3 species of plants). The local healers and

Table: 1 Plants used in treatment of gynaecological disorders by the *Lodha* women of *Paschim Medinipur*, West Bengal

Name of the plant/habit/ habitat/Voucher Number	Family	Local name	Parts used	Mode of preparation/ administration
<i>Achryanthes aspera</i> L./Herb/SS102.	Amaranthaceae	<i>Apang</i>	Leaf, Root	1-2 ml of fresh root extract given orally twice a day as cure menstrual pain. Decoction of fresh leaves is given orally as cure to stop excessive haemorrhage during early pregnancy. A thin paste is obtained by grinding fresh roots with sufficient quantity of water in a mortar and pestle. The paste is applied to external genitalia to induce labour.
<i>Allium sativum</i> L./Herb/SS103	Amaryllidaceae	Rosun	Leaf	Half glass of leaf decoction is taken in menstrual pain.
<i>Aloe vera</i> (L.)Burm. f./Herb/SS104	Xanthorrhoeaceae	Gritakumari	Leaf pulp	Leaf pulp is applied on breasts to cure swelling during early lactation. Juice of leaves is given to lessen labour pain during delivery.
<i>Aristolochia India</i> L./creeper/SS105	<i>Aristolochiaceae</i>			1 gm of root powder is given with warm water in the morning to cure menstrual pain.
<i>Azadirachta indica</i> A.Juss./ Tree/SS108	Meliaceae	Nim	Leaf	Leaf decoction is given to relieve painful menstruation.
<i>Bacopa monnieri</i> (L)Penell /Herb/SS109	Plantaginaceae	Brahmi		Plant extract is taken to treat gonorrhoea.
<i>Bombax ceiba</i> L./tree/SS141	<i>Malvaceae</i>	<i>Simul</i>	Fleshy roots	Root paste of young plants (1 gm) mixed with cow milk is given once a day in early morning for one month to regulate irregular menstruation.
<i>Butea monosperma</i> (Lam.)Taub./ Tree/SS110	Fabaceae	Polash	Leaf	Leaf decoction is given after miscarriage and in amenorrhoea.
<i>Calotropis gigantea</i> (L)W. T.Aiton/Shrub/SS111	Apocynaceae	Akondo		Leaf decoction is given used to relieve menstrual pain.
<i>Centella asiatica</i> (L.)Urban/Herb/SS113	Mackinlayaceae	Thankuni	Leaf	Leaf juice mixed water is given in empty stomach to treat irregular menstruation.
<i>Cynodon dactylon</i> (L) Pers/herb/SS118	Poaceae	Durba	Whole plant	The whole plant paste is given to cure irregular periods. The juice with sugar is taken daily for a week to stop excessive bleeding during menstruation.
<i>Dalbergia sissoo</i> Roxb/tree/ SS119 leucorrhoea.	<i>Fabaceae</i>	<i>Sissoo</i>	Leaf	Tender leaves made paste are taken with milk to treat
<i>Datura metel</i> L/ Shrub/ SS120	Solanaceae	Dhutura	Leaf	1 tea spoon leaf decoction is given daily in amenorrhoea.
<i>Emblica officinalis</i> Gaertn./ tree/SS122	Euphorbiaceae	<i>Amla</i>	Fruit	Fruit pulp mixed with honey and taken in leucorrhoea.
<i>Hemidesmus indicus</i> L., R.Br. /shrub/SS126	Apocynaceae	Anantmula	Root	Root paste is used for the treatment of leucoderma.
<i>Hibiscus rosa-sinensis</i> L/Shrub/SS127.	Malvaceae	Jaba	Stem bark	Stem bark paste are taken by the <i>Lodha</i> woman continuously 7 days for causing abortion.
<i>Mangifera indica</i> L./tree/SS128	Anacardiaceae	<i>Aam</i>	Seed	Seed powder is given in leucorrhoea.
<i>Mimosa pudica</i> L/herb/SS132	Fabaceae	<i>Lajjabati</i>	Root	Root paste mixed with honey administered is given for menstrual pain.
<i>Murraya koenigii</i> (L.) Sprengel /tree/SS134	Rutaceae	<i>Kamini</i>	Leaf	Leaf decoction is given with honey in menstrual pain.

Table 1: Continued

<i>Nyctanthes arbor-tristis</i> L./tree/SS135	Oleaceae	Sheuli		Tender leaves are taken with pepper for irregular menstruation.
<i>Nelumbo nucifera</i> Gaertn/aquatic plant/SS130	<i>Nelumboneaceae</i>	<i>Paddo</i>	Rhizomes	Decoction of rhizomes is taken by <i>Lodha</i> women in empty stomach for fifteen days, as a cure for white discharge.
<i>Ocimum tenuiflorum</i> L./shrub/SS136	Lamiaceae	Tulsi		Leaf juice is taken with <i>gur</i> and cow milk to relieve pain after delivery.
<i>Ricinus communis</i> L./Shrub/ SS140.	Euphorbiaceae	Reri	Seed oil	Seed oil is given to relieve constipation during pregnancy.
<i>Sesamum indicum</i> L/ herb/SS144	Pedaliaceae	<i>Til</i>	Seeds	Grounded seeds mixed with ghee and sugar are taken with hot milk in amenorrhoea.
<i>Sida cordifolia</i> L./shrub/ SS143	Malvaceae	Swet berela		Seed decoction is given for gonorrhoea.
<i>Terminelia arjuna</i> (Roxb.) Wight and Arn./tree/SS147	<i>Combretaceae</i>	<i>Arjun</i>	Stem bark	Stem bark powder is taken with water in leucorrhoea.
<i>Tamarindus indica</i> L./tree/SS145	<i>Fabaceae</i>	<i>Tetul</i>	Fruit	Fruit paste (1 gm) mixed with 1 tea spoonful honey taken by women to cure menorrhagia.
<i>Vitex negundo</i> L./shrub/ SS148	Verbenaceae	Nishindi		Leaf decoction is taken with liquor tea to reduce white discharge.
<i>Wedelia calendulana</i> Less/Herb/SS149	Asteraceae	Bhringaraj	Whole plant	Whole plant decoction mixed with water given to women for continuous 21 days in empty stomach to treat uterine haemorrhages, menorrhagia, etc
<i>Winthania somnifera</i> (L) Dunal/Shrub/SS150	Solanaceae	Ashwagandha	Stem, bark	Stem bark powder is taken with raw cow milk to regulate menstrual disorder.

tribal population mostly used fresh plant parts. Dried plant parts are used in powdered form. The local tribes mainly used leaf, root, bark, rhizome, stem, fruit, seed and latex of these plants as medicine for various ailments. The reported plants were mostly administered as decoction, extracts, paste, juice and poultice.

## DISCUSSION

In the present study, 30 medicinal plants were commonly used in different gynaecological disorders of the women in *Paschim Medinipur*. *Paschim Medinipur* is inhabited by a number of tribal communities like *Santhals*, *Mundas*, *Lodhas*, *Bhumijis*, *Oraon* and *Kherias*. The use of medicinal plants was a chosen practice in this district throughout history, the knowledge of which was gathered through the experience of many generations. The reported plants were used by more than one ethnic group. The local tribes mainly used leaf, root, bark, rhizome, stem, fruit, seed and latex of these plants. The consensus among users indicates that plants have curative effect. Several group of diterpenes (kaurenoic acid), phenyl propanoid glucosides, heterocyclic aldehydes and fatty acids (linoleic acid), steroidal saponins have been earlier reported from these plants [24]. Thus the present investigation can provide leads for specific gynaecological problems of women.

## CONCLUSION

The ethno-medico-botanical survey of the villages of *Paschim Medinipur* district revealed that the people of this area are possessing good knowledge of herbal drugs

but, as these ethnic societies are in progressive exposure to modernization; their knowledge of traditional uses of plants may be lost in due course. This knowledge needs to be inventorised and research related to isolation and purification of active compounds from these plants should be carried out to provide leads in future drug therapy.

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