

Medico-ethnobotanical studies of Odisha state, India for urogenital disorders: a review

Sangeeta Rani Tripathy¹, Jyotirmayee Dash¹, Sarita Das^{1*}

¹Microbiology Laboratory, Department of Botany, Berhampur University, Bhanja Bihar, Berhampur 760007, Odisha, India.

*Corresponding to: Sarita Das, Microbiology Laboratory, Department of Botany, Berhampur University, Bhanja Bihar, Berhampur 760007, Odisha, India. E-mail: saritadas7@yahoo.com; mohap003@gmail.com.

Abstract

Objective: This manuscript is inspired by the usage of traditional medicines i.e., *Ethnomedicines*. It aims to collect the available data on Odisha's native medicinal flora to provide a relatively updated, comprehensive, and categorized idea on ethnomedicinal species with their therapeutic usage. This survey reveals about 264 medicinal plant species frequently used by different non-tribal and tribal communities of the study area in the prevention and treatment of 11 different urogenital disorders or related issues. **Methods:** The data from different published research and review articles confined to ethnomedicinal plants in different scientific databases like Google, ScienceDirect, Pubmed, etc were captured by specific keywords. **Results:** The relevant information regarding correct taxonomic identification with family, common locally assigned names, plant parts that are in use with the correct mode of administration concerning different health ailments about the urogenital system has been analyzed in this review. **Conclusion:** This paper presents a compilation of commonly used plant parts administered in different parts of Odisha, to treat various urogenital issues. This could provide great potential for the discovery of more potent bioactive compounds, which are produced as the secondary metabolites by the medicinal flora. Hence further phytochemical screening, antimicrobial studies on these plant parts need to be conducted to explore their potential as important medicinal plant species.

Key words: Ethnomedicinal survey, Medicinal flora, Urogenital disorders, Odisha state

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Background

Ethnomedicine is a branch of modern science dealing with ancient herbalism used by indigenous people to treat various health ailments. Traditional medicine is the union of all knowledge and practices used by individuals in diagnosis, prevention, and elimination of physical, mental, or social imbalance [1]. These exclusively rely on practical experience and observations passed on by individuals from generation to generation. These medicinal plants are contributing a lot to the health care system of local communities of both underdeveloped and developing countries [2]. A great need for proper documentation of this knowledge is needed to preserve the endangered tribal knowledge of therapies before it has lost completely [3]. Further scientific backing is required to deduce efficacies of phytomedicines to synthesize effective and cheaper drugs with high therapeutic potentials to meet the market demands.

India is one of the twelve-mega biodiversity countries of the world and possesses rich medicinal vegetation that is used by local inhabitants for their primary health care. Odisha is one of the eastern states of India; the majority of the rural population of Odisha is under the poverty line. Lack of awareness among rural populations, make them suffer from reoccurring urogenital issues. Being cheaper, cost-effective, and safer alternatives to conventional medicines, herbal medicines significantly contribute a lot to the health and livelihoods of the rural inhabitants. Nowadays

these herbal treatments are widely accepted among urban populations too to avoid the intensive side effects of synthetic drugs. The natives make use of various medicinal plant parts for therapy. Therefore, large-scale cultivation and propagation of these important medicinal plants are needed to meet market demands and for their sustainable utilization [4]. Insufficient therapeutic information led us to start the documentation of the medicinal flora, which are used traditionally by the local inhabitants of different districts and forest regions of Odisha. This paper is an attempt to enlist the useful ethnomedicinal flora of Odisha state and the uses of various plant parts along with their mode of administration against certain urogenital issues in both males and females.

Materials and methods

The geographical position of study area

Odisha is one of the eastern states of the Indian peninsula, which shares its boundaries with Jharkhand in its north, West Bengal in its northeast border, Chattisgarh on its west, and Andhra Pradesh in the south, which is presented in Figure 1. The geographical boundary of the state is spread over an area of 155,707 km², which is about 4.87% of the total area of India. Odisha state consists of 30 districts, 314 blocks. It has a shoreline of about 480 km long. In Figure 2, the geolocation of the places of significance referred to in this paper has been pinned from the google map.

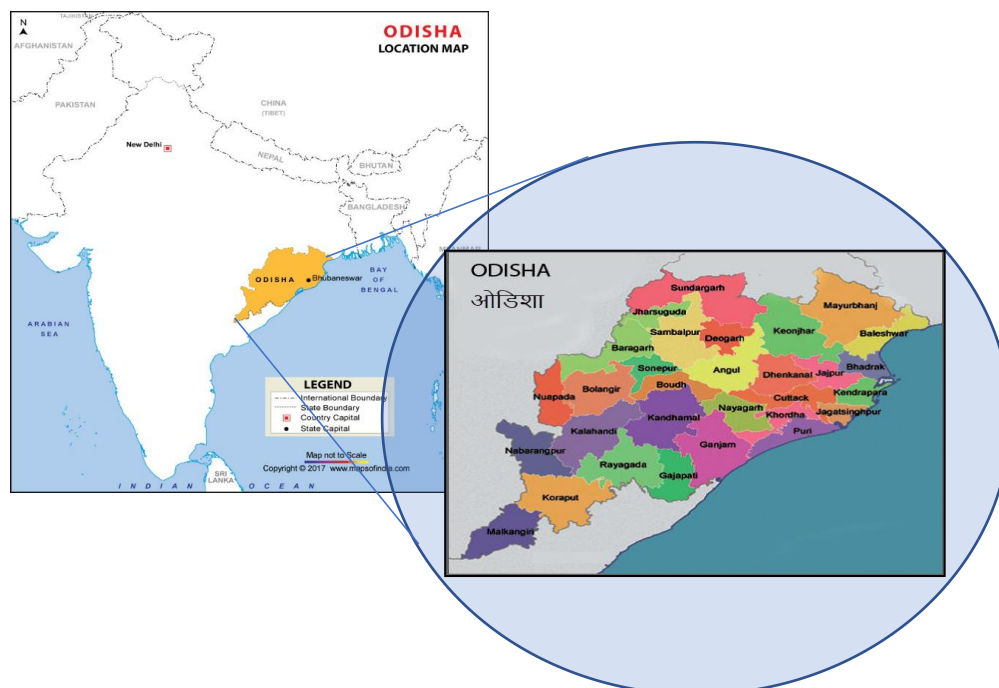


Figure 1 The geographical position of Odisha, India

ODISHA

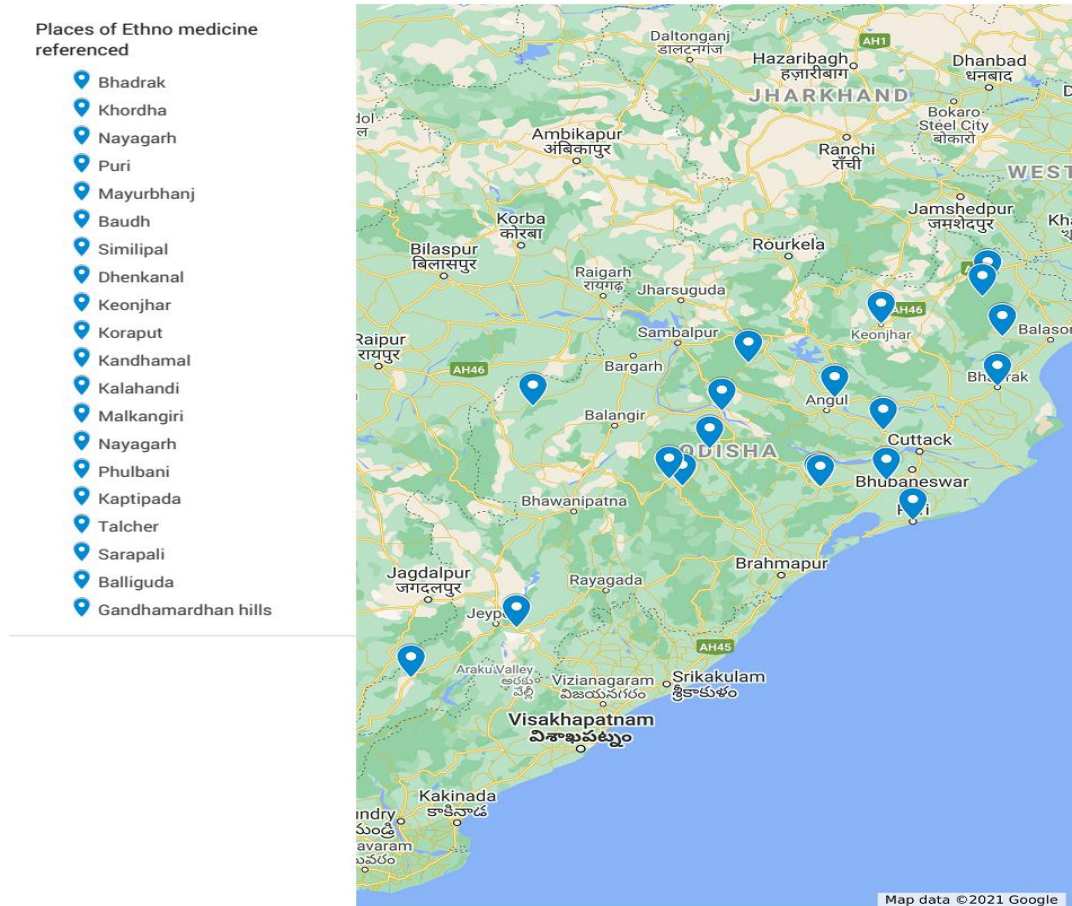


Figure 2 The geographical position of the study area in Odisha, India

The climate of study area

Odisha has a tropical climate, with extreme climate experiencing high temperature, mild winter, medium to severe rainfall, high humidity. The average temperature reaches around 27.4°C/81.20°F. About 75% to 80% of rainfall is received during June to September with normal rainfall of about 1451.2 mm.

Soil type of study area

Soil types range from fertile alluvial deltaic soils in coastal plains, mixed red and black soils in Central, red and yellow soils with low fertility in Northern Plateau to red, black, and brown forest soils in the Eastern ghat region.

Data collection and tabulation

The literature on ethnomedicines used for different urogenital disorders is collected from different scientific journals and tabulated in Table 1. According to the referred literature, the floristic survey was

conducted to collect some plant samples through field studies, which are listed in Table 2 and Table 3. The Phytotherapeutic data is presented in the tabular form detailing the botanical name of plants, the family they belong to, their respective local name, specific plant parts used for therapy, and the mode of drug preparation for administration against various ailments. A total of 264 medicinal plant species of 85 families are documented in Table 1.

Commonly used medicinal plants for urogenital disorders

The number of plants reported from different districts of Odisha, India so far, for various urogenital ailments were compiled in Table 1. Table 2 comprises of the list of plants used frequently or reported maximum times. Their chemical composition along with their use against different disease and clinical trial reports (if any) were also listed in Table 2, which will help in further exploration of these plants to understand the rationale behind their use.

Table 1 List of medicinal flora and its therapeutic usage against urogenital disorders

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
1	<i>Abelmoschus ficulneus</i> . (L.) Wt. & Arn.ex Wt. (Malvaceae)	Jaba	Flower	2-3 flowers powdered in 50ml of Kanji (fermented liquid of cooked rice) given for three days from day 1 of menstruation, followed by 50 g of date palm jaggery from day 4 onwards for the next 7 days.	Contraception	Bisra, Sundargarh	[5]
2	<i>Abroma augusta</i> (L.) L.F (Malvaceae)	Olata kamala	Leaf, Bark	Half a teaspoon of fresh leaf powder is taken orally once a day. A decoction is prepared taking one glass of water and 5 g of powdered bark along with black pepper. One part of this to be taken daily for the next seven days before the onset of menstruation.	Gonorrhoea Menstrual disorder	Khordha and Nayagarh, Undivided Puri	[6]
3	<i>Abrus precatorius</i> L. (Fabaceae)	Kaincha	Seeds	Crushed preparation of seed is given <i>d.n.s</i> 3 seeds were taken for 4 days. <i>d.n.s</i>	Contraception Unwanted pregnancy Menorrhagia	Koraput Malkangiri Kaptipada forest, Mayurbhanj	[7] [14] [9]
			Leaf, Seed and Root	Unspecified	Oral contraception	Boudh	[10]
			Fruit	Unspecified	Unwanted Pregnancy	Similipal, Mayurbhanj	[11]
			Seed	Seed paste	Diuresis	Dhenkanal	[12]
			Root	Root decoction	Leucorrhoea	Koenjhar	[13]
			Leaf, Seed	About 20 mg of dry leaf powder is taken with cold water once daily for about 15 days. 10mg of seed extract is taken twice daily for 2-3 days in the early stage of conception.	Unwanted Pregnancy		
			Seed	Three seeds were taken for 4 consecutive days.	Unwanted pregnancy	Malkangiri	[14]
			Leaf	Leaf powder is taken orally	Urinary problem	Kantapada block, Cuttack	[15]
			Root, bark, seed	Unspecified	Haematuria	Kaptipada forest, Mayurbhanj	[9]
			Leaf	Leaves are ground with buttermilk and the extract is given.	Urethritis	Dhenkanal	[16]
4	<i>Abutilon hirsutum</i> (Vell.) K. Schum. (Malvaceae)	Pedipediaca	Leaf, seed	Leaf/Seed paste is given until cure	Urinary problem, Syphilis	Sunabeda Wildlife Sanctuary, Nuapada	[17]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
5	<i>Acacia catechu</i> (L.f.) Willd. (Mimosaceae)	Khair	Stem	Heartwood paste taken with water in empty stomach.	Gonorrhoea	Nuapada	[17]
6	<i>Achyranthus aspera</i> L. (Amaranthaceae)	Apamaranga	Root	Smelling of fresh root.	Expedite delivery	Khajuripada, Phulbani	[18]
			Whole Plant	30ml of whole plant decoction with 20-30 ml of honey is prepared for internal use.	Labour pain issues, Expedite delivery	Sundargarh	[5]
		Apamrityu	Root	Unspecified	Expedite delivery	Mantriguda valley, Kalahandi	[19]
		Apamara nga	Whole plant	Plant decoction.	Oligomenorrhoea	Coastal sand dunes	[8]
			Twig	Juice of tender twig.	Labour pain issues	Koraput	[20]
	Leaf	About 20 g of leaf juice is administered orally to the pregnant woman.	Expedite delivery	Boudh	[17]		
7	<i>Acorus calamus</i> L. (Arecaceae)	Bacha	Tuber	Tubers with water is administered.	Labour pain issues	Boudh	[10]
8	<i>Adhatoda vasica</i> Nees. (Acanthaceae)	Basanga	Root	Dried root powder (10 g) with 7 black pepper berries given once orally.	Expedite delivery	Kalinga, Phulbani	[21]
				Paste of root.	Leucorrhoea	Bhadrak	[22]
9	<i>Adiantum lunulatum</i> L. (Adiantaceae)	Raktakhai	Root	The single root boiled in 500ml of water till it becomes 1/4 th and the decoction given.	Haematuria	Belghar, Phulbani	[23]
10	<i>Aegle marmelos</i> L.Corr. (Rutaceae)	Bela	Root, Leaf, Fruits	Unspecified	Spermatorrhoea	Angul-Talcher Mining region	[24]
			Bark	Bark powder with root juice of <i>Oroxylum indicum</i> and <i>Mangifera indica</i> leaf	Labour pain issues	Bhadrak	[21]
			Fruit	Fruit juice is administered orally	Urinary troubles	Ganjam	[24]
11	<i>Aerva lanata</i> (L.) Juss.ex Sch (Amaranthaceae)	Chharmudi, Sweet apamaranga	Root	The root is given to women only once	Oral contraception	Wildlife sanctuary of Sunabeda,	[25]
			Leaf	Leaves are given in the early morning for 3-4 days	Oligomenorrhoea		
		Lopong arak, Paunsia	Whole Plant	Whole plant paste is sniffed at women.	Expedite delivery, Leucorrhoea	Nuapada	[18]
			Whole plant	10 g of dried plant powder taken along with barley water, thrice a day for 45 days	Nephrolithiasis, Urethritis	Boudh	[10]
			Root	5g of root paste or 10-15 ml decoction of the whole plant is given twice a day for 10 days.	Dysuria	Dhenkanal	[26]
	Leaf	Leaves with root juice.	Nephrolithiasis and stones in the urinary bladder				

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
12	<i>Aerva sanguinolenta</i> (L) Blume. (Amaranthaceae)	Auldhua	Root	Two parts of fresh roots are collected after sunrise and is mixed with the 1 part of roots of <i>Smilax ovalifolia</i> Roxb. and 1 part of <i>Asparagus racemosus</i> Wild. This is crushed into a paste and consumed twice daily for one week.	Leucorrhoea	Subarnagiri, Phulbani	[26]
		Idodine, Lal lata,	Whole Plant	2-3 spoons of whole plant juice are given to women for 3 days.	Leucorrhoea	Wildlife sanctuary of Sunabeda, Nuapada	[27] [17]
13	<i>Aeschynomene aspera</i> L. (Fabaceae)	Solo	Shoot	Dried young shoot powder with ½ teaspoon powdered sugar candy is given.	Oligospermia	Wetlands of South Odisha	[28]
14	<i>Agave sisalana</i> Perrine (Agavaceae)	Nalimurga	Latex	Unspecified	Spermatorrhoea	Similipal, Mayurbhanj	[11]
15	<i>Ageratum conyzoides</i> L. (Asteraceae)	Pokasungha,	Root	From the day of onset of menstruation for the next 7 days, powdered root is taken orally. This is to be repeated for the next 2 cycles.	Dysmenorrhoea	Gadragaon, Chakapada, Phulbani	[26]
		Pokasungha,	Leaf	A paste of leaves is soaked in water for one week. The extract is administered to the child every Sunday until recovery.	Enuresis		
		Pokasungha,	Root	Unspecified	Enuresis	Kaptipada forest, Mayurbhanj	[9]
		Gandhari	n.s	Unspecified	Nephrolithiasis	Koraput	[20]
16	<i>Alternanthera sessilis</i> (L.) R.Br. ex DC. (Amaranthaceae)	Madaranga	Leaf, Plant	Unspecified	Gonorrhoea	Kaptipada Forest, Mayurbhanj	[9]
			Leaf	Fresh leaf juice with honey is prescribed	Leucorrhoea	Wetlands of South Odisha	[28]
17	<i>Aloe vera</i> (L)Burm. f. (Xanthorrhoeaceae)	Ghekuanri	Leaf	Leaf is used <i>d.n.s</i>	Expedite delivery	Bhadrak	[21]
		Gheekumri	Leaf	Approx. 2 ml of leaf juice is administered once in a day for one week.	Leucorrhoea	Rayagada	[29]
18	<i>Alstonia scholaris</i> (L.) R.Br. (Apocynaceae)	Rukni	Stem bark	For the next 3-7 days, every morning patient is administered on 5 mg stem bark powder mixed with cow milk.	Gonorrhoea	Belghar, Phulbani	[18]
		Chhatiana		The crushed stem bark of an old tree is boiled in cow's milk. The patient is supposed to drink it twice a day for the next one month.	Gonorrhoea	Dudsi, Phulbani	[26]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
19	<i>Alysicarpus bupleurifolius</i> (L.) DC (Fabaceae)	Kapur	Whole plant	Plant extract is given orally <i>d.n.s</i>	Infertility	Nuapada	[17]
20	<i>Amaranthus hypochondrioides</i> L. (Amaranthaceae)	Kukdakesh bhaji	n.s	Unspecified	Contraception	Koraput	[20]
21	<i>Amaranthus viridis</i> L. (Amaranthaceae)	Kosila saaga	Plant, Stem	Unspecified	Leucorrhoea	Kaptipada forest, Mayurbhanj	[9]
22	<i>Amaranthus spinosus</i> L. (Amaranthaceae)	Kantasaga	Whole plant Root	Paste from the whole plant <i>d.n.s</i> Root juice <i>d.n.s</i>	Leucorrhoea Menorrhagia	Bhadrak	[21]
23	<i>Ampelocissus latifolia</i> Planch (Vitaceae)	Jungli angur	Root	Steamed, Paste <i>d.n.s</i>	Hydrocele, Kidney disorder	Sacred forest of Western Odisha	[30]
24	<i>Annona reticulata</i> L. (Annonaceae)	Ramphala	Seed	Seed powder <i>d.n.s</i>	Unwanted Pregnancy	Similipal, Mayurbhanj	[11]
25	<i>Annona squamosa</i> L. (Annonaceae)	Neua	Root	Root bark powder is eaten with water by mother at once at bedtime for one week.	Post-natal complaints	Singuda, Bhadrak,	[22]
		Atta	Seed	Unspecified	Contraception	Koenjhar, Similipal, Mayurbhanj	[31]
		Sitaphala	n.s	Unspecified	Post-natal complaints, infertility in women	Orissa state	[32]
26	<i>Anthocephalous cadamba</i> (Roxb.) Miq (Rubiaceae)	Kadamba	Stem bark	Stem bark is used <i>d.n.s</i>	Genital disorders	Bhadrak	[21]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
27	<i>Areca catechu</i> L. (Arecaceae)	Gua	n.s	The decoction of nuts (15 g) mixed with 5 g of old jaggery is given once daily for 10-20 days.	Urinary disorder	Dhenkanal	[16]
28	<i>Arisaema tortuosum</i> (Wall) Schott (Araceae)	Dahi Kanda	Seed	Seeds are boiled in water or roasted and given orally	Spermatorrhoea	Nuapada	[17]
29	<i>Argemone mexicana</i> L. (Papaveraceae)	Nippania	Root	10 g dried root and 21 black peppers are crushed together and given in equal proportion. This dose is administered to the patient once a day for the course of the next 3-4 days	Menorrhagia	Khajuripada, Phulbani	[18]
				An extract from two parts of root bark and one part of cow ghee is made. This is administered to the patient once in the morning for the next two weeks.	Spermatorrhoea	Daringbadi, Phulbani	[26]
		Agara	Root	Unspecified	Urinary disorder	Koenjhar, similipal, Mayurbhanj	[31]
		Bada-Gokhura	n.s.	Unspecified	Menorrhagia, Spermatorrhoea	Orissa state	[32]
		Odosomari	Seeds	Dried seeds are heated in a container to extract their oil content. This oil is applied locally on genitals for the next 21 to 30 days, 2 to 3 times a day.	Gonorrhoea, Syphilis	Kandhamal	[33]
			Root	The roots of the plant is thoroughly washed and pounded upon to extract its juice. This juice is boiled along with water till powder form remains. This powder form is molded in form of small tablets. The patient is supposed to have this tablet along with butter for the next 21 days every day in the morning.	Gonorrhoea		
		Sundi satkeu	Root	10g of root crushed properly and taken orally for 10 days.	Syphilis	Rayagada	[29]
		Ganghauda	Whole plant	Unspecified	Low libido	Angul-Talcher Mining region	[23]
		Odosomari	Seed, bark, leaf	Unspecified	Syphilis	Kandhamal	[34]
		Kantakusuma	Leaf	Leaves consumed with <i>Piper nigrum</i> .	Leucorrhoea	Bhadrak	[21]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
30	<i>Argyreia nervosa</i> (Burm.f.) Boj. (Convolvulaceae)	Munda-nai	Seed	Equal parts of the seed and <i>Withiana somnifera</i> (Aswagandha) are mixed with water to form a paste and then taken orally on an empty stomach.	Oligospermia	Gandhamardan Hill range	[35]
31	<i>Aristolochia indica</i> L (Aristolochiaceae)	Hansapada	Root	The root powder mixed with honey is consumed.	Syphilis	Dhenkanal	[12]
32	<i>Asparagus racemosus</i> Willd. (Liliaceae)	Satabari	Root	Roasted root administered with cow's milk twice a day.	Post-natal complaints	Mudulipada, Koraput	[36]
		Iswarajata		Dried or fresh root powder with 7 black peppers given twice a day.	Spermatorrhoea	Raikia, Phulbani	[18]
		Satabari	Whole plant	Two parts of the extract of the plant, one part of roots of <i>Smilax ovalifolia</i> Roxb & <i>Aerva lanata</i> (L) Juss are mixed with water. This mixture is administered to the patient once in the morning and once in the evening for the next week.	Leucorrhoea	Jamugurha, Belghar, Phulbani	[26]
		Sibojata	Root	Root extract and black peppers are powdered together and made into a paste. This paste is applied to the affected area of the patient till he is cured.	Hydrocele	Bonai Hills, Sundargarh,	[37]
		Satabari	Whole plant	Unspecified	Urinary discharge	Rajkakhole, Nediguda, Badruguda, Phulbani	[38]
		Satabari	Root	Tuberous roots are grounded to extract the juice. This juice is to be taken along with one glass of warm water on an empty stomach. <i>d.n.s</i> The root is sun-dried and pounded. One teaspoon of the powder is taken along with 250ml of raw cow milk on an empty stomach. This needs to be followed for the next 21 days.	Low libido Gonorrhoea, Impotency, Leucorrhoea, Metrorrhagia	Kandhamal	[33]
			Roots are washed and pounded to extract its juice. About one cup of juice is taken along with 250 ml of raw cow milk with one teaspoon of jaggery (or sugar). This is administered to the patient for the next 21 days, two times a day on an empty stomach.	Spermatorrhoea			
			About 20g of the bar-removed root is consumed with one teaspoon of sugar on an empty stomach. This is administered to the patient for the next 7 days, twice a day.	Spermatorrhoea Low libido			
		Kedarnari	Root, Plant	Unspecified	Low libido	Kaptipada forest, Mayurbhanj	[9]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
		Painasapari	Root	2 g of dried root powder is mixed with half a glass of milk and administered once a day after dinner for 15 days.	Post-natal complaints	Rayagada	[29]
		Kedarnari	Root	Root paste	Gonorrhea, Unwanted pregnancy	Similipal, Mayurbhanj, Angul-Talcher mining area	[11] [23]
			Root	50 g of root extract is mixed equal proportion of washed and cut pieces of "gyanasundha" along with 1.5 liters of fresh cow milk. This mixture is heated in low flame till it gets a buttery texture. Post this content is allowed to be cooled down and is divided into 15 equal parts. These parts are to be taken by the patient daily for the next 15 days. During the treatment period, it is advised to abstain from any kind of sexual intercourse and be on a non-acidic vegetarian diet.	Urinary disorder	Sarapalli, Bandhugaon, Koraput	[39]
			Root	Tuberous root powder (5 g) mixed with 10 g of sugar candy is given to the patient once a day for one month.	Haematuria and related urinary disorders	Dhenkanal	[23]
			Whole plant	Unspecified	Protects pregnancy	Kandhamal	[34]
			Root	Root paste	Expedite delivery	Bhadrak	[21]
33	<i>Astercantha longifolia</i> Nees (Acanthaceae)	Koilakha	Whole plant n.s	Administered orally in the form of decoction and powder. Unspecified	Miscarriage	Ganjam	[40]
					Nephrolithiasis	Orissa state	[32]
34	<i>Azadirachta indica</i> A. Juss. (Meliaceae)	Nimba	Seed	Few drops of Neem seed oil are applied to genitals before sexual intercourse.	Contraception	Kalahandi	[41]
			Leaf	Unspecified	Gonorrhea	Kaptipada forest, Mayurbhanj	[9]
			Whole Plant	Unspecified	Infertility in women	Rajakakhola, Nediguda, Badruguda, Phulbani	[38]
			Stem bark	Stem bark powder covered with a thin clean cloth is put inside the vagina for at least 3 days.	Post-natal complaints	Rayagada	[29]
			Bark, Leaf	Bark and leaf paste.	Spermicide and contraception of a woman	Mohana, Gajapati	[3]
35	<i>Barleria prionitis</i> L. (Acanthaceae)	Daskeranta	Root	Crushed root extract is taken orally twice daily for a week.	Leucorrhoea	Sulugaon, Arnigarh, Phulbani	[26]
		Kanta	Leaf	5 g of fresh leaf paste with a small amount of honey taken for 3 days	Labour pain issues	Rayagada	[29]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref	
36	<i>Bambusa arundinacea</i> Wild. (Poaceae)	Kantabaunsa	Leaf, Root	A paste is made by mixing tender leaves of the plant along with grounded seeds of <i>Sesamum indicum</i> , honey, and an equal proportion of grounded seeds of <i>Trigonella foenum</i> . This mixture is to be taken for the next 3 days.	Unwanted pregnancy of up to 3 months	Boudh	[10]	
				Root paste. <i>d.n.s</i>	Urinary disorder	Dhenkanal	[12]	
37	<i>Bauhinia purpurea</i> L. (Caesalpiniaceae)	Kanchna	Bark, Root	Equal quantities of fresh bark and root of <i>Asperagus racemosus</i> Willd. Pounded and 15 g of the above is given with cow milk.	Dysuria and gall bladder stone	Sundargarh	[5]	
		Barada	n.s	Unspecified	Dysuria	Kalahandi	[41]	
38	<i>Bauhinia vahlii</i> Wt & Arn. (Caesalpiniaceae)	Aola	Leaf	Leaves used. <i>d.n.s</i>	Contraception	Lanjia, Koraput	[7]	
		Kanchna	Bark, Root	Equal quantities of fresh bark and root of <i>Asperagus racemosus</i> Willd. Pounded and 15 g is given with cow milk.	Dysuria and gall bladder stone	Sundargarh	[5]	
		Siali	Seeds	Decoction of seeds is taken at night.	Low libido	Gandhamardan hill range	[35]	
39	<i>Bauhinia variegata</i> L. (Caesalpiniaceae)	Jantai	Bark	Equal quantities of fresh bark of this plant and roots of Satavari (<i>Asperagus racemosus</i>) pounded and 15 g of the above is given with cow's milk.	Dysuria	Dhenkanal	[16]	
40	<i>Boerhaavia diffusa</i> L. (Nyctaginaceae)	Ghodapurun	Whole Plant	10g of whole plant paste in chaul dhua pani (water obtained after washing rice) with little honey is given twice daily.	Menorrhagia	Orampara, Sundargarh	[5]	
		Puruni	Root	About 20 g of fresh root pasted with rice water taken orally with one teaspoon of honey twice daily in empty stomach for one week.	Leucorrhoea, Metrorrhagia, Spermatorrhea	Kandhamal	[33]	
		Artikopadi	Leaf, Plant	Unspecified	Menorrhagia	Kaptipada forest, Mayurbhanj	[9]	
		Puruni	Whole plant	10ml decoction of the whole plant is given with 4-5 drops of honey.	Urinary problems	Dhenkanal	[12]	
		Kenchha	Whole plant	10ml decoction of the whole plant with 4-5 drops of honey.	Dysuria	Dhenkanal	[16]	
41	<i>Blepharis maderaspatensis</i> (L) B Heeyne ex Roth (Acanthaceae)	Ukara	Artikopadi	Seeds, Whole plant	One tablespoon of roasted seeds is given as a tea with or without sugar and milk. Juice is made from the whole plant and 30 ml of which is given once per day.	Nephrolithiasis	Khordha and Nayagarh, Undivided Puri	[6]
			Puruni	Whole plant Root	Decoction of the whole plant is given. Root paste is administered with water.	Cystitis		
					Decoction of the whole plant is given. Root paste is administered with water.	Leucorrhoea	Bhadrak	[21]
			Whole plants are boiled in and the decoction is given with rock sugar (Khadi Mishri) for 7 days.	Expedite delivery Oliguria	Nuapada	[17]		

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
42	<i>Bombax ceiba</i> L (Bombacaceae)	Semul/ Balsimili	Root, Whole Plant	An equal proportion of Tuberous roots, young plant and those of Bhukakkharu (<i>Pueria tuberosa</i> DC), and Satavari (<i>Asperagus racemosus Willd</i>) are given along with 20ml of cow milk.	Spermatorrhoea	Junadihi, Sundargarh	[42]
			Root	Bread is made from the powder of root tuber, fried in cow ghee given as a diet	Low libido	Harishankar, Bolangir	
			Flower	Equal proportions of rare white flowers, Madar (<i>Calotropis gigantea</i> (L.) R.Br, turmeric plant flowers, and roots of <i>Abrus precatorius</i> L. are pounded together. 10 g of this mixture is given thrice a day for the next three days.	Infertility in women		
		Simuli	Seeds	An equal proportion of seed gum and dried mango seeds are pounded and made into 5 g tablets. For the next 5 days, two tablets are given twice daily to the patient.	Dysmenorrhoea	Raikia, Phulbani	[18]
		Khirang	Root	6 g of powdered root is mixed with a pulse (<i>Phaseolus</i> sp.) This is administered to the patient at bedtime along with cow milk.	Spermatorrhoea	Mudulipada, Koraput	[37]
		Simili	Bark	The stem bark is pounded and juice is extracted from the same. One teaspoon of this juice is mixed with fresh root juice of <i>Asparagus racemosus Willd</i> . This is pounded with 7 black peppers (dried seed of <i>Piper nigrum</i> L., Piperaceae), and one teaspoon of jaggery (or sugar). This is administered to the patient for the next 21 days, two times a day.	Gonorrhoea, Impotency, Spermatorrhoea, Sterility, Leucorrhoea	Kandhamal	[33]
		Simili	n.s	Unspecified	Menstrual disorder	Kaptipada forest, Mayurbhanj	[9]
			Root	Fresh root juice is administered with sugar candy on an empty stomach.	Infertility in women	Coastal districts of Odisha Koenjhar	[10] [13]
			Bark	40ml of decoction of the bark.	Sexual incompatibility	Mayurbhanj	[25]
			Roots	7 g of root paste is taken orally in an empty stomach for one month.	Leucorrhoea	Rayagada	[29]
			Fruit	5 g fruit paste is given along with decoction of 50 g of Kullattha (<i>Dolichous biflorus</i>) This is administered to a patient to have daily early morning on an empty stomach.	Nephrolithiasis, Kidney Problem (ulcer)	Angul-Talcher mining region Dhenkanal	[23] [16]
			Bark	Stem bark powder is administered with water.	Labour pain issues, Expedite delivery	Bhadrak	[21]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
43	<i>Borassus flabellifer</i> L. (Palmae)	Tala	Root	Unspecified	Diuresis	Coastal sand dunes	[8]
			Flower	For 7 days half a cup of inflorescence juice is given once a day on an empty stomach.	Syphilis	Dhenkanal	[12]
			Inflorescence	Paste of male inflorescence with black pepper powder (<i>Piper nigrum</i>) is taken.	Contraception	Bhadrak	[21]
			Root	Root paste is administered.	Menorrhagia		
44	<i>Bryonopsis laciniosa</i> Auct.Non (L.) (Cucurbitaceae)	Sibalingi	Fruit	Crushed fruit mixed with gram seed and is used.	Syphilis	Dhenkanal	[12]
			Seeds	Seeds are taken. <i>d.n.s</i>	Infertility in women		
45	<i>Buchanania lanzan</i> Spreng. (Anacardiaceae)	Chara	Root, fruits	Unspecified	Spermatorrhea	Angul-Talcher mining region	[23]
46	<i>Butea monosperma</i> Lam. (Fabaceae)	Palasa	Seed	2 g of seed ash with cold water should be taken by the patient post menstruation, for the next three days, once a day.	Contraception	Jhareikela, Sundargarh	[5]
			Seed	Intake of seed extract with an equal proportion of flower extract of Mahula (<i>Madhuka longifolia</i>) to be taken once in the morning and later in the evening on an empty stomach.	Unwanted pregnancy	Harishankar, Nandupala, Gandhamardan hill range	[35]
			Leaf	Unspecified	Difficulty in Conception	Kalahandi	[41]
			Bark	50-100 ml of bark quoth is consumed.	Dysmenorrhoea	Mayurbhanj	[25]
			Stem bark	10-15 g of stem bark juice is administered with a pinch of pepper powder with cow milk, once in a month.	Nephrolithiasis	Boudh	[10]
			Stem bark	The stem bark is tied in the right hand after taking bath on the first day of menstruation.	Menarch	Rayagada	[29]
			Bark	Decoction of bark.	Leucorrhoea, Amenorrhoea, dysmenorrhoea, and menstrual disorders	Bhadrak	[21]
47	<i>Butea superba</i> Roxb. (Fabaceae)	Lahapalash	Seed	Seed powder. <i>d.n.s</i>	Contraception	Sacred forest of Western Odisha	[30]
48	<i>Caesalpinia bonduc</i> (L.) Roxb. (Caesalpinaceae)	Gilo	Leaf	Leaf paste is applied on swollen testicles.	Hydrocele	Coastal sand dunes	[8]
49	<i>Calotropis gigantea</i> R.Br. (Asclepiadaceae)	Arakha	Root	Unspecified.	Unwanted pregnancy	Baliguda, Phulbani	[43]
			Leaf	2-3 gently warmed leaf with (<i>Ricinus communis</i>) castor oil is bandaged around testicles every day.	Hydrocele	Boudh,	[10]
			Dhenkanal	[12]			
		Arka	Root & Latex	Unspecified	Contraception	Koenjhar, Similipal, Mayurbhanj	[31]
	Root	Unspecified	Unwanted Pregnancy	Baliguda, Phulbani	[43]		

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
50	<i>Calotropis procera</i> (Ait.) R.Br. (Asclepiadaceae)	Arakha	Root	Unspecified	Unwanted Pregnancy	Baliguda, Phulbani	[43]
51	<i>Careya arborea</i> Roxb. (Lecyithidaceae)	Kumbhi	n.s	Unspecified	Post-natal complaints, Hydrocele	Orissa state	[32]
		Kumbo	Stem, bark	2 teaspoonfuls of decoction of stem bark at bedtime is taken for one week.	Post-natal complaints	Bonai, Sundargarh	[36]
52	<i>Carica papaya</i> Linn. (Caricaceae)	Amrutabhanda	n.s	Unspecified	Unwanted pregnancy	Orissa state	[32]
			Flower, latex, seeds			Infertility in women	Koenjhar, Similipal, Mayurbhanj
53	<i>Canscora decussata</i> (Roxb.) Schult & aphul Schult (Gentianaceae)	Sankhaphul	Root, Seeds	8-10 g root ground with 5-6 white seeds of <i>Abrus precatorius</i> . This mixture is to be taken on an empty stomach once a day for the next 5-7 days during her menstruation period.	Contraception	Orampara & Hemgir, Sundargarh	[5]
			Whole Plant	20 ml of whole plant juice given once daily for 7 days at bedtime either with honey or jaggery.	Leucorrhoea		
54	<i>Caryota urens</i> L. (Arecaceae)	Salapa	Root	Unspecified	To get relieved from the effect caused due to intake of salapa in case of the pregnant women	Semiliguda, Koraput	[44]
			Whole plant	Fermented sap is consumed.	Urinary disorder	Mohana, Gajapati	[3]
55	<i>Cassia fistula</i> L. (Caesalpiniaceae)	Sunari, Pundula	Leaf	The paste is made from the young leaves. This paste is supposed to be kept inside the vagina of the women once a day for one week.	Amenorrhoea	Subarnagiri, Phulbani	[26]
			Sunari, Bahenga	n.s	Unspecified	Amenorrhoea	Orissa
		Whole plant	Unspecified	Syphilis	Angul-Talcher mining region	[23]	
	Bark	The paste of the bark is taken orally.	Unwanted pregnancy	Raikia, Phulbani	[43]		
56	<i>Cassia occidentalis</i> L (Caesalpiniaceae)	Kasundiri	Whole plant	Unspecified	Diuresis	Coastal sand dunes	[8]
57	<i>Cassia tora</i> L. (Caesalpiniaceae)	Chakunda	Seed	Equal quantified of seed and turmeric paste applied as a poultice.	Gonorrhoea	Bilamala, Phulbani	[18]
58	<i>Catharanthus roseus</i> (L.) G. Don. (Apocyanaceae)	Sadabihari	Leaf	Leaf juice is consumed with honey.	Leucorrhoea, menorrhagia	Bhadrak	[21]

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59	<i>Celastrus paniculatus</i> Willd. (Celastraceae)	Peng, Pingkanda	Root	A paste is made from 5 cm long root and seven black peppers along with washed rice water. This paste is given to the patient twice daily.	Leucorrhoea, Spermatorrhoea	Jalmahadev, Sambalpur	[42]
		Pengu	Root bark	A mixture of 10 g of root bark of the young plant, 7 black peppers are powdered and made into a paste with one liter of water. This paste is given to the patient once a day for the next two days.	Leucorrhoea	Narayanprasad , Bolangir	[26]
		Pengu		Unspecified	Leucorrhoea, Spermatorrhoea	Orissa state	[32]
60	<i>Centella asiatica</i> (L.) Urban (Apiaceae)	Ghoda tapua, Brahmi	Leaf	Leaf paste is rubbed in the palm and foot of pregnant women.	Labour pain issues, Expedite delivery	Baghabudi, Sundargarh	[5]
		Thalkudi	Whole plant	Unspecified	Contraception	Mohana, Gajapati	[3]
			Leaf	Unspecified	Dysuria	Kantapada block, Cuttack	[15]
			Leaf	Leaf juice with water.	Oligomenorrhoea	Bhadrak	[21]
61	<i>Chlophytum arundinaceum</i> Baker. (Liliaceae)	Banadhua, Dheunga	Root	The root is crushed in the rice-washed water and the extract is taken twice daily for 2 days.	Dysmenorrhoea	Srirampur, Phulbani,	[26]
62	<i>Christella semisagitata</i> (Roxb.) (Thelypteridaceae)	Raktabidar	Root	5 g root powder given twice a day with 100 ml of cow milk.	Menorrhagia	Sonabera plateau Kalahandi	[45]
63	<i>Cissampelos pareira</i> Linn. (Menispermaceae)	Akanbindi	Leaf	5-7 fresh leaves and five black peppers are crushed and are given to the patient thrice a day.	Menstrual disorder	Bisra, Sundargarh	[5]
		Suannai	Leaf	100 g of leaves crushed and the paste is given daily for 8 days.	Oligomenorrhoea	Bisra, Sundargarh	[5]
		Guapad, Akanbindi	Root	2 g of root. <i>d.n.s</i>	Leucorrhoea	Mayurbhanj	[25]
		Dindanim ada	Leaf	Paste of leaves. <i>d.n.s</i>	Contraception	Govindapalli, Malkangiri	[14]
64	<i>Clausena excavate</i> Burm. f. (Rutaceae)	Tanla	Root	2.5-5 cm long root chewed twice daily for 3 days.	Urinary tract infection	Rohila, Dhenkanal	[46]
65	<i>Clitoria ternatea</i> L (Fabaceae)	Aparajita	n.s	Unspecified	Gynecological disorders	Mayurbhanj	[25]
			Root	1-2 g root powder is mixed with warm milk /water is administered.	Nephritis	Coastal districts of Odisha	[10]
			Root	Root paste with black pepper. <i>d.n.s</i>	Leucorrhoea	Bhadrak	[21]
			Root	3 g of the root mixed with 5 g of dried ginger and taken orally.	Urinary problems	Kantapada Block, Cuttack	[26]

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66	<i>Coccinia grandis</i> L. (Cucurbitaceae)	Kunduri	Root	Two teaspoons of root powder are boiled with 150 ml of water and are given to the patient three times a day.	Urinary disorder	Khordha and Nayagarh, Undivided Puri	[6]
67	<i>Coccolus hirsutus</i> (L. Diet) (Menispermaceae)	Dahidahika	Leaf	3 g of leaves are powdered and are taken by the patient along with the crystalized sugar lump.	Spermatorrhoea	Khordha and Nayagarh, Undivided Puri	[6]
68	<i>Cocos nucifera</i> L. (Arecaceae)	Nadia	Roots, Spadix Fruit	Root and Fresh unripe fruit pulp are consumed. Juice of young fresh spadix is given. Coconut milk is given. Coconut water is taken.	Diuresis Diuresis, Kidney problems	Coastal sand dunes Kantapada block, Cuttack	[8] [15]
69	<i>Coix aquatic</i> Roxb. (Poaceae)	Dangogargara	Root	A paste is made with root powder, black pepper along with cow urine. The patient is supposed to shape it into a form of tablets and have it.	Dysuria, Menstrual disorders	Wetlands of South Odisha	[28]
70	<i>Commelina paludosa</i> Blume (Commelinaceae)	Kena	Leaf	Leaves are pasted with water and taken for 2 days for proper urinary flow.	Urinary troubles	Nuapada	[17]
71	<i>Commiphora mukul</i> (Hook. ex Stocks) Engl. (Burseraceae)	Guggula	Gum	2 g of resinous gum in hot water is given to the patient for 1 month.	Urinary tract infections	Dhenkanal	[16]
72	<i>Conyza canadensis</i> (L.) Cronq. (Asteraceae)		Root, Bark, Leaf	Unspecified	Uterine hemorrhage	Kaptipada forest, Mayurbhanj	[9]
73	<i>Corchorus olitorius</i> L. (Tiliaceae)		Leaf, Seed, Plant	Unspecified	Diuresis	Kaptipada forest, Mayurbhanj	[9]
74	<i>Costus speciosus</i> (J. Koenig) Sm. (Zingiberaceae)	Gaigobra	Rhizome	Dry rhizome powder is used.	Haemorrhagia	Similipal, Mayurbhanj	[11]
75	<i>Crataeva nurvala</i> Buch. (Capparidaceae)	Baruna	Bark	20-30 ml of bark juice with hot water or milk is given thrice for 3-4 days.	Unwanted pregnancy	Kalahandi	[41]
76	<i>Crossandra infundibuliformis</i> Linn. (Acanthaceae)	Cherpipla	Whole plant	Whole plant juice of powder is taken next 7 days, three times a day.	Genital disorders	Kalahandi	[41]
77	<i>Cryptolepis buchanani</i> Roem & Schult. (Asclepiadaceae)	Gopakanu	Root	The paste is made from the root powder is to be taken orally for the next 2-3 days along with milk.	Oligomenorrhea	Kalahandi	[41]
78	<i>Cucumis melo</i> L. (Cucurbitaceae)	Kharbhuj	Epicarp	Unspecified	Nephrolithiasis, Urinary tract infection	Koenjhar, Similipal, Mayurbhanj	[31]
79	<i>Cucumis sativus</i> L. (Cucurbitaceae)	Kakudi	Seeds	About 10-15 seeds are grounded along with little rock salt and is prescribed to be taken by the patient twice a day for the next 5 days.	Urinary tract infection	Dhenkanal	[5] [16]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
80	<i>Curculigo orchioides</i> Gaertn. (Hypoxidaceae)	Talamuli	Root	2.5 cm long root is chewed thrice daily and is to be continued for the next 21 days (also advisable for the men who pass semen in urine)	Low libido	Baragaon, Sundargarh	[5]
			Root	Unspecified	Gonorrhoea	Rajakakhola, Nediguda & Badriguda	[38]
			Root	Roots are washed and pounded to make the paste. About 50 g of this paste is boiled along with 1 litre of water in low flame till 250 ml of decoction remains. The patient is administered 2-3 teaspoons of this decoction along with one teaspoon of honey for the next 25 days, two times a day on an empty stomach.	Gonorrhoea, STD, Impotency	Kandhamal	[33]
				About 10 g of the root is sun-dried is mixed with an equal quantity of dried seeds of <i>Asparagus racemosus</i> Willd. <i>Tribulus terrestris</i> L. (Zygophyllaceae), <i>Hygrophila auriculata</i> (Schum.) Heine, and watery juice of <i>Ziziphus mauritiana</i> Lam. (Rhamnaceae). The mixture is pounded. The patient is administered this mixture with an equal quantity of jaggery for the next 30 days, two times daily on an empty stomach.	Spermatorrhea, Leucorrhoea, Metrorrhagia, Impotency		
				Roots are washed, sun-dried, and pounded. This powder is to be administered with one glass of warm water on an empty stomach two times a day.	Spermatorrhea Impotency		
				Roots are washed, sun-dried, and pounded. This powder is to be administered with one glass of warm cow milk at bedtime.	Spermatorrhea, Oligospermia		
			n.s	Unspecified	Impotency, Gonorrhoea	Kalahandi	[32] [41]
			Stem	Tuber paste with curd is taken administered to the patient for the next 3 days.	Oligomenorrhoea	Kalahandi	[41]
			Root	<i>d.n.s</i>	Leucorrhoea, Gonorrhoea	Mayurbhanj	[25]
			Root	5 g of powdered root tubers mixed with cow milk is administered twice a week.	Spermatorrhea, Leucorrhoea	Boudh	[10]
			Rhizome	Unspecified	Urinary tract infection	Dhenkanal	[16]
			Root	Unspecified	Dysuria, Leucorrhoea	Kandhamal	[34]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
81	<i>Curcuma amada</i> Roxb. (Zingiberaceae)	Amba ada	Rhizome	15 g paste of rhizome and 7 black peppers taken in rice washed water twice daily for 7 days.	Oligomenorrhea	Pathar, Harishankar, Budusamaro Pahad, Bolangir	[42]
82	<i>Cuscuta reflexa</i> Roxb. (Convolvulaceae)	Nirmuli	Whole Plant	An equal proportion of the Whole plant with <i>Centella asiatica</i> (L.) Urban, <i>Vitex peduncularis</i> fruit is pounded with nine black peppers. 10 g of the mixture is given to the patient every morning post completion of 5 days of mensuration cycle.	Contraception	Garjapara ghat, Phulbani	[18]
				Two parts of the whole plant and one part of black pepper are crushed together.	Spermatorrhoea	Daringbadi, Phulbani,	[26]
				An aqueous portion of the mixture is taken daily two times for a week.			
				Unspecified		Orissa state	[32]
83	<i>Cymbopogon citrates</i> DC Stapf. (Poaceae)	Dhantarai, Dhan wantri	Whole plant	½ cup of whole plant juice is given on an empty stomach for few days.	Reproductive disorders	Kalahandi	[41]
			Roots	A spoonful of roots dried in shade and pounded to a fine powder and is given twice a day.	Hysteria		
84	<i>Cynodon dactylon</i> (L.) Pers. (Poaceae)	Duba ghasa	Whole plant	About 10–15 g of the whole plant (fresh) along with 100 g of fresh rice is pasted, cooked and a cake is prepared. Daily one cake is taken orally on an empty stomach for 10–15 days.	Menstrual complaints, Amenorrhoea, Menorrhagia, Dysmenorrhoea	Kandhamal	[33]
			Leaf	Two teaspoons of fresh leaf juice along with one teaspoon of jaggery taken orally in an empty stomach every hour for about 12 times.	Leucorrhoea, Metrorrhagia		
			Whole plant	Plant decoction is given.	Diuresis	Coastal sand dunes	[8]
			Leaf	A mixture of the whole plant with sugar candy and honey is administered.	Dysuria	Mohana, Gajapati	[3]
				Unspecified	Unwanted pregnancy	Angul-Talcher mining region	[23]
				A mixture is prepared by pestling 5 <i>Cynodon dactylon</i> L. leaves with seven leaves of Barakoli (<i>Ziziphus mauritiana</i>), seven grains of raw rice, and 250 ml water. This mixture is administered.	Diuresis	Dhenkanal	[16]
			Whole plant	Paste of the whole plant. <i>d.n.s</i>	Leucorrhoea	Bhadrak	[21]
			Leaf	Unspecified	Urinary tract infection	Malkangiri	[47]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
85	<i>Cynoglossum glochidiatum</i> Wall.ex Benth (Boraginaceae)	Tejraj	Root	20 g root eaten once a day for next 7 days.	Low libido	Harishankar, Bolangir	[42]
86	<i>Cyperus rotundus</i> L (Cyperaceae)	n.s	Tuber	Unspecified	Gonorrhea	Kaptipada forest, Mayurbhanj	[9]
87	<i>Dalbergia sissoo</i> Roxb. (Fabaceae)	Sissoo	Leaf	Leave paste is externally applied.	Dysuria	Mayurbhanj	[25]
			Root, Leaf, bark	Unspecified	Low libido, Syphilis	Angul-Talcher mining region	[23]
88	<i>Datura metel</i> L. (Solanaceae)	Kaldudura	Leaf	Seven fresh tender leaves are rolled and are kept under female genitals once a day for a month.	Amenorrhoea	Mandakia, Phulbani	[26]
			Fruit	Fruits are dipped in the hot mustard oil and the prepared lotion is applied on testicles.	Hernia	Nuapada	[17]
89	<i>Datura stramonium</i> L. (Solanaceae)	Dudura	Flower	A mixture of 120 mg of flower powder with honey is taken twice a day for 10 days after menstruation.	Infertility in women	Khordha and Nayagarh, Undivided Puri	[6]
90	<i>Dendrophthoe falcate</i> (L.f.) Etting (Loranthaceae)	Jhajangi, Dendi	Whole Plant	Crushed extract of the whole plant is given as a drink twice daily for a week.	Leucorrhoea	Kinipanga, Phulbani	[26]
91	<i>Desmodium oojeinense</i> (Roxb.) Ohashi (Fabaceae)	Bandhan	Stem bark	The crushed stem bark is boiled with water and juice is taken 2 spoon-full daily.	Gonorrhea	Kapilash, Dhenkanal	[39]
				A paste is made from a mixture of inner bark, with red <i>rosa-sinensis</i> (Mandar), and bark of <i>Butea monosperma</i> (Palasa), and 7 cloves This paste is administered to the mature girls for the next 3 days.	Onset of Menarche	Nuapada	[17]
92	<i>Desmostachya bipinnata</i> (L.) Stapf. (Poaceae)	Kasuri	Root	Decoction of 20 g roots with little honey given thrice a day for 3 days.	Urinary troubles	Dhenkanal	[16]
93	<i>Dillenia pentagyna</i> Roxb (Dilleniaceae)	Rai	Bark	25-60 ml of bark decoction is prescribed.	Post-natal complaints	Mohana, Gajapati	[3]
94	<i>Dioscorea alata</i> L. (Dioscoreaceae)	Khamba Alu	Tuber	Boiled tubers.	Post-natal complaints	Bhadrak	[21]
95	<i>Dioscorea bulbifera</i> Linn. (Dioscoreaceae)	Pita kanda	Tuber	The roasted tuber is taken orally daily for a month.	Hydrocele	Kalahandi	[41]
96	<i>Diospyros melanoxylon</i> Roxb. (Ebenaceae)	Kendu	Stem bark	Two spoonfuls of Stem bark extract with a glass of rice cooked water in the morning for 2 months from the 6 th and 7 th month of pregnancy.	Post-natal complaints	Boudh	[10]
			Flower, Bark	Unspecified	Leucorrhoea	Kaptipada forest, Mayurbhanj	[9]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
97	<i>Diospyros peregrina</i> (Gaertn.) Guerke (Ebenaceae)	Makar kendu	Fruit	10 g fruit pulp made into a paste in goat's milk given for internal use.	Leucorrhoea	Harishankar, Bolangir	[42]
98	<i>Diplocyclos palmatus</i> (Linn.) C. Jeff. (Cucurbitaceae)	Sibalinga	Seeds	The decoction of 10 seeds, the root of such a plant of the same species which hasn't bear fruits, roots of Devnasan (<i>Croton roxburghii</i>), and 3 seeds of Dhala gunja (White seeded <i>Abrus precatorius</i>) are given once a day for 3 days. The seed powder with a spoon of honey is taken twice daily.	Menarche, infertility in women Difficulty in conception, miscarriage Uterine colics	Manbhang, Paikmal, Sambalpur Batipathar, Gandhamardan hill range	[42] [35] [35]
99	<i>Dodonaea viscosa</i> L. (Sapindaceae)	Mahada	Leaf	Leaf decoction is consumed.		Dhenkanal	[12]
100	<i>Dolichos biflorus</i> L. (Fabaceae)	n.s	Seeds	Unspecified	Diuresis	Dhenkanal	[12]
101	<i>Drimia indica</i> (Roxb) Jessop (Asparagaceae)	Ban Pyaj	Corms	Corms are consumed.	Gonorrhoea	Nuapada	[17]
102	<i>Drynaria quercifolia</i> (L.) J Sm. (Polypodiaceae)	n.s	Shoot	Shoot powder is consumed.	Low libido	Similipal Mayurbhanj	[11]
103	<i>Echinops echinatus</i> Roxb. (Asteraceae)	n.s	Inflorescence, Seed, Plant	Unspecified	Syphilis, Impotency	Kaptipada forest, Mayurbhanj	[9]
104	<i>Eclipta alba</i> L. (Asteraceae)	Bhrungaraj	Leaf	One-fourth to half a glass of leaves juice is made and taken by the patient twice a day.	Urinary tract infections	Khordha and Nayagarh, Undivided Puri	[6]
105	<i>Eclipta prostrata</i> (L.) (Asteraceae)	Batresh	Whole Plant	30 g of the whole plant cooked and eaten.	Bumps on genital organs	Manbhang, Paikmal, Sambalpur	[42]
106	<i>Elephantopus scaber</i> Linn. (Asteraceae)	Mayurchulia, Mayursikha	Root	Roots are washed and are pounded. 10 g of it is mixed with 21 black peppers (dried seed of <i>Piper nigrum</i> L.) are grounded together. This mixture is to be administered along with the 250 ml of raw cow milk on an empty stomach, two times a day. Root paste with rice washed water in empty stomach for 3-5 days.	Spermatorrhoea, Leucorrhoea, Metrorrhagia, Menstrual complaints, Menorrhagia, Dysmenorrhoea	Kandhamal	[33]
			Root, Leaf, Flower	5-10 g (d.n.s)	Oligomenorrhoea Urethrorrhoea	Kalahandi Mayurbhanj	[41] [25]
107	<i>Emblica officinalis</i> Gaertn. (Phyllanthaceae)	Anla	Seed	Powder of dry seed taken twice a day for a week.	Leucorrhoea	Jhirpani, Phulbani,	[26]
			Fruit	Unspecified	Dysuria	Kandhamal	[34]
			Fruit	Taken as decoction, juice, or powder of the fruit.	Dysuria	Ganjam	[40]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
108	<i>Enhydra fluctuans</i> Lour. (Asteraceae)	Hidmicha	Leaf	Leaf infusion. <i>d.n.s</i>	Gonorrhea	Similipal Mayurbhanj	[11]
109	<i>Entada rheedii</i> Spreng. (Mimosaceae)	Gilo	Seeds	The decoction of seeds and bark mixed with coconut oil is smeared on the scrotum.	Hydrocele	Harishankar, Gandhamardan hill range	[35]
110	<i>Erycibe paniculate</i> Roxb. (Convolvulaceae)	Koikhamar	Bark	Decoction of 5 g each of twig and bark along with 5 g bark of <i>Entada rheedii</i> is administered to the patient one time a day for the next 4-5 days.	Low libido	Jalmahadev, Sambalpur	[42]
111	<i>Erythrina variegata</i> L. (Fabaceae)	Paldhua, Baldia	Stem bark	Green stem bark is worn tightly with a loincloth (Kopin, Langot) for 1-2 hours by the women	Abortion	Nuapada	[17]
112	<i>Eulophia nuda</i> Lindl. (Orchidaceae)	Bhrata-batuli, Churiakand	Stem	One whole tuber ground with 5 black peppers in rice washed water and given twice a day for 7 days Tuber along with few black peppers are mixed and made into a paste This paste is given to the patient along with the fresh cow milk daily for the next 2-3 days	Spermatorrhoea, Leucorrhoea, abdominal pain due to Amenorrhoea Spermatorrhoea	Budasamaro pahad, Bolangir Harishankar, Pathar, Bolangir	[42]
113	<i>Euphorbia hirta</i> L. (Euphorbiaceae)	Khirsag	Leaf	Crushed leaf extract is taken orally with honey once in the morning for a month	Leucorrhoea	Durgapanga, Phulbani	[26]
		Chitacutae	Fresh twig	10-15 g of fresh twigs are mixed with 15-20 g of sugar candy and formed a paste This paste is to be taken by the patient in 6-8 doses, in the morning and evening	Gonorrhea	Mohana, Gajapati	[3]
114	<i>Euphorbia pulcherrima</i> Willd. ExKlotz (Euphorbiaceae)	Khirsagar	Leaf	Warm leaves placed on the abdomen	Dysuria	Gopalmadhav, Bhadrak	[22]
115	<i>Euphorbia tithymaloides</i> L. (Euphorbiaceae)	Sijo	Leaf	Leaf paste is given in the morning to feeding mothers	Increase lactation/Postnatal complaints	Nuapada	[17]
116	<i>Euphorbia thymifolia</i> L. (Euphorbiaceae)	Banaola	Whole Plant	One teaspoonful of decoction of the whole plant is given with honey twice a day	Haematuria	Sanabera Plateau, Kalahandi	[45]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
117	<i>Feronia limonia</i> L. (Rutaceae)	Kaitha	Leaf	Leave juice is made and 7-14 ml of this juice is taken by the patient two times daily for the next month	Nephrolithiasis	Khordha and Nayagarh, Undivided Puri	[6]
118	<i>Ficus benghalensis</i> L. (Moraceae)	Bara	Root	Aerial root tip made into a paste; poultice applied locally	Syphilis	Khajuripada, Phulbani	[18]
			Fruit	Fruit of the plant is sun-dried in shade, pounded, and then taken by the patient every morning and evening for the next one week along with honey	Spermatorrhoea	Bakikamba, Gressingia, Phulbani	[26]
			Latex	Latex extract of 25-30 drops is to be taken by the patient along with banana once in the morning for the next month	Gonorrhoea		
			n.s	Unspecified	Syphilis, Spermatorrhoea, Gonorrhoea		
			leaf	Latex of the leaves is extracted. One teaspoon of the same is mixed along with a teaspoon of sugar (or jaggery) and is administered to the patient for the next 21 days, two times a day.	Impotency, Spermatorrhea	Kandhamal	[33]
			Bark, fruit, leaf	Unspecified	Infertility in women, Leucorrhoea, Gonorrhoea	Kaptipada forest, Mayurbhanj	[9]
			Root, bark, Leaf	Unspecified	n.s	Angul-Talcher mining region	[23]
119	<i>Ficus exasperate</i> Vahl (Moraceae)	Pakher	Prop root	The paste is made from the tender prop root tips. 20 ml of the juice paste is taken along with goat milk daily for the next 21 days on an empty stomach	Spermatorrhoea, Low libido	Koenjhar	[13]
			Fruit	Fruits are dried and given with <i>Withiana semnifera</i> (Aswagandha)	Enhance lactation/Postnatal complaints	Nuapada	[17]
120	<i>Ficus glomerata</i> Roxb. (Moraceae)	Dimri, Dumer	Root	Half a cup of root juice is drunk twice daily	Gonorrhoea	Bhadrak	[22]
			Unripe fruits	Small pieces of unripe fruits are given in small amounts 3-5 times daily	Spermatorrhoea, Low libido	Kalahandi	[41]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
121	<i>Ficus hispida</i> L. f. (Moraceae)	Phanika	Root, Fruit, Latex	Unspecified	Gonorrhoea, Impotency	Kaptipada forest, Mayurbhanj	[9]
122	<i>Ficus religiosa</i> L. (Moraceae)	Pipal	Bark, Fruit, Leaf	Unspecified	Infertility in women, Leucorrhoea	Kaptipada forest, Mayurbhanj	[9]
123	<i>Flacourtia ramontchi</i> L. Herit (Flacourtiaceae)	Bhuinkanta	Stem	A one-half glass of warm stem decoction is taken daily	Post-natal complaints (to reshape abdomen after delivery)	Bonai Hills, Sundargarh,	[45]
124	<i>Gardenia gummifera</i> L.f. (Rubiaceae)	Ghurudu	Latex	2-5 g of latex <i>d.n.s</i>	Low libido	Mayurbhanj	[25]
125	<i>Gelonium multiflorum</i> A. Juss. (Euphorbiaceae)	Anjiray	Bark	Unspecified	Contraception	Koraput	[7]
126	<i>Gemidesmus indicus</i> (L.) R.Br. (Asclepiadaceae)	Dudhulibutta	Root	50 g powdered root boiled in 500 ml water till it becomes 100 ml, this 100 ml is given every day for 3-4 days	Menorrhagia	Baliguda, Phulbani,	[18]
127	<i>Gloriosa superba</i> L. (Colchicaceae)	Barishkanda	Root & other underground parts	Unspecified	Unwanted pregnancy	Rajakakhola, Nediguda & Badruguda, Phulbani	[38]
		Lahalangli	n.s	Unspecified	Unwanted pregnancy	Mantrigida Valley, Kalahandi	[19]
		Puraful	Stem	Tuber paste is applied to the abdomen and kept for hours. This act is repeated for few days.	Unwanted pregnancy	Kalahandi	[41]
			Bark	An aliquot of 20-30 ml bark juice is taken daily for 15 days or till the disappearance of the ailment	White discharge during Oligomenorrhoea		
		Panchaangulisa	Rhizome	Rhizome decoction is taken	Labour pain issues, the expulsion of the placenta	Sunabeda wildlife sanctuary, Nuapada	[27]
		Ognisikha	Tuber	1 teaspoonful of tuber extract taken two times a day for the next 5 days	Unwanted pregnancy up to 3 months	Boudh	[10]
	Panja gulia	Root, Seed, Leaves	Unspecified	Kidney problem	Angul-Talcher Mining region	[23]	
128	<i>Glycosmis pentaphylla</i> (Retz.) Correa (Rutaceae)	Dubuduba, Tarang, Rachmuni	Root	Paste of root is given with water 2-3 times daily	Post-natal complaints	Ladrimi, Ganjam	[5]
129	<i>Gmelina arborea</i> Roxb. (Verbenaceae)	Gambhari, Gamer	Bark	20-30ml of bark juice is taken for 15 days	White discharge during Oligomenorrhoea	Kalahandi	[41]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
130	<i>Gossypium arboreum</i> Linn. (Malvaceae)	Kapa	Root bark	1 tablespoon of root bark juice is given in an empty stomach thrice daily for 3-4 days	Unwanted pregnancy	Kalahandi	[41]
131	<i>Grangea maderaspatana</i> (L.) Poir (Asteraceae)	Panijhari, Agnikumari	Whole plant	Plant paste with cow milk and sugar candy is given	Menstrual disorder	Wetlands of South Odisha	[28]
132	<i>Grewia rothii</i> DC (Malvaceae)	Kukurchipa	Leaf, Flower	Leaf, flower, bud are cooked as a vegetable and given to women after delivery	Post-natal complaints	Malyagiri, Dhenkanal,	[46]
		Bursu	Flowers	Dried flowers are pounded with honey and given to the patient	Spermatorrhoea in young boys	Chakapada, Phulbani	[43]
133	<i>Grewia hirsute vahl</i> (Malvaceae)	Bansula, Kukurgetha, Sonamukhi	Root	One spoon of root powder is given with honey for 10-15 days	Oligospermia	Nuapada	[17]
134	<i>Hedychium coronarium</i> Koeing ex. Retz. (Zingiberaceae)	Dhusuli	Flower	Flowers and black pepper (2:1) paste taken twice a day for a week	Dysuria	Dhudsi, Belghar, Phulbani	[26]
135	<i>Hemidesmus indicus</i> (L.) R.Br. (Asclepiadaceae)	Anantamula	Root, Leaves, Stem	Unspecified	Low libido	Angul-Talcher mining region	[23]
		Sugandhi	Root	Unspecified 50g root powder boiled in 500 ml water till it becomes 100 ml. This 100 ml decoction is given once every day for 3-4 days	Syphilis Oligomenorrhea	Kandhamal Baliguda, Phulbani	[34] [18]
136	<i>Heterostemma piperifolium</i> King & Gamble (Asclepiadaceae)	Badabhulan	Root	Root paste (5 g), 7 black pepper berries, root (15 g) of 'Devanasan' (<i>Crotonroxburghii</i> Balak) rhizomes(5g) of Bhutanasa (<i>Zingiber capitatum</i> Roxb.) and 2-3seeds of 'KolaKaincha' (<i>Abrus precatorius</i> L. (black seeded) prescribed.	Menorrhagia	Nrusinghnath, Harishankar Patther, Bolangir,	[42]
137	<i>Hibiscus cancellatus</i> Roxb. (Malvaceae)	Ban Bhindi	Root	The dry root powder is taken orally once or twice a day for 2-5 days	Unwanted pregnancy	Kalahandi	[41]
138	<i>Holarrhena pubescens</i> (Buch.Ham.) Wall. ex G. Don (Apocynaceae)	Keruana	Bark	Bark is consumed with warm water	Leucorrhoea	Mohana, Gajapati	[3]
139	<i>Hybanthus enneaspermus</i> (L.) F.v. Muell (Violaceae)	Tandisol	Root	10 g of roots ground with 3 black peppers (<i>Piper nigrum</i>) and 50 g sugar candy The paste is to be administered to the patient every morning on an empty stomach	Dysuria	Dhenkanal	[16]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
140	<i>Hygrophila auriculata</i> (K. Schum.) Heine (Acanthaceae)	Kuilikhia	Stem	Ash of stem eaten with honey <i>d.n.s</i>	Nephrolithiasis/ Urinary bladder stone	Basantia, Bhadrak	[22]
			Seed	Seeds are dried and pounded. 10 g of this seed powder is mixed in equal proportion of dried root powder of <i>Asparagus racemosus Willd.</i> , dried seed powder of <i>Mucuna pruriens</i> (L.) DC., and dried tuber powder of <i>Ipomoea mauritiana</i> Jacq purified in cow milk. The patient is administered the mixture with 250 ml raw cow milk for the next 15 days, once a day on an empty stomach early morning	Gonorrhea, Impotency, Spermatorrhea, Leucorrhoea, Metrorrhagia	Kandhamal	[33]
		Koilekha	Seed	Dry seed powder mixed with milk and with/without sugar candy is taken.	Impotency	Wetlands of South Odisha	[28]
		Kikdikanta	Leaf	Leaf powder	Urinary infection	Similipal Mayurbhanj	[11]
n.s	Unspecified		Stone of Urinary bladder, Diuresis	Koraput	[20]		
141	<i>Hyptis suaveolens</i> (L.) Poit (Lamiaceae)	Ganga tulsi	Whole plant	Whole plant paste	Urinary infection	Similipal, Mayurbhanj	[11]
142	<i>Ichnocarpus frutescens</i> (L.) R.Br. (Apocynaceae)	Basang,	Root,	The root is pounded with the root of Satabari (<i>Asparagus racemosus Linn.</i>)	Low libido, Erectile dysfunction	Katarakia, Phulbani	[43]
		Saon lar	Leaf	Fresh juice (10 ml) of leaf and fruit along with two black peppers" (<i>Piper nigrum</i>) seeds is given early in the morning in an empty stomach	Dysuria	Dhenkanal	[16]
143	<i>Ipomoea aquatica</i> Forssk. (Convolvulaceae)	Kalama	Leaf	Leaf juice with cow ghee is given	Gonorrhea	Wetlands of South Odisha	[28]
144	<i>Ipomoea heterifolia</i> L. (Convolvulaceae)	Panialu	Tuber	Boiled tuber eaten	Urinary tract infection	Malyagiri, Dhenkanal	[46]
145	<i>Ipomoea pes-caprae</i> (L.) R.Br. (Convolvulaceae)	Kansarilata	Leaf, roots	Unspecified	Gonorrhea	Coastal sand dunes	[8]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
146	<i>Ipomoea sepiaria</i> Koeng ex., Roxb. (Convolvulaceae)	Muskani	Whole plant	Whole plant Juice	Diuresis	Dhenkanal	[12]
147	<i>Ixora pavetta</i> Andr. (Rubiaceae)	Patra	Bark	Bark decoction	Urinary infection	Similipal, Mayurbhanj	[11]
148	<i>Jatropha gossypifolia</i> L. (Euphorbiaceae)	Baigabo	Bark	Bark decoction	Oligomenorrhea	Coastal sand dunes	[8]
149	<i>Kalanchoe pinnata</i> (Lam.) Pers. (Crassulaceae)	Amarpoi	Leaf	A 40-50ml decoction of leaves is given 2-3 times a day.	Urinary bladder stones and related problems	Coastal districts of Odisha	[49]
		Hemkedara	Leaf	The paste is made from one leaf and 2 black peppers (<i>Piper nigrum</i>). This paste is given to the patient two mornings and evening post-meal	Nephrolithiasis	Dhenkanal	[16]
150	<i>Lagerstroemia speciosa</i> (L.) Pers. (Lythraceae)	Patoli	Leaf	Leaf paste	Gynecological disorders	Similipal, Mayurbhanj	[11]
151	<i>Lawsonia inermis</i> L. (Lythraceae)	Manjuati	Stem	Stem decoction is stored overnight in the clay pot and filtrate is taken in the morning as a drink	Urinary bladder stones and related problem	Coastal districts of Odisha	[49]
152	<i>Leea macrophylla</i> Roxb.exHorn. (Leeaceae)	Jayandi		Unspecified	Contraception	Keonjhar, Similipal, Mayurbhanj	[31]
153	<i>Licuala peltate</i> Roxb. (Arecaceae)	Banotali	Stem	Pith of basal stem prescribed	Low libido	Malyagiri, Dhenkanal	[46]
154	<i>Limnophila rugosa</i> (Roth)Merr. (Scrophulariaceae)	Bhringaraj	Leaf	Leaf paste is given orally with Tulsi leaves	Dysuria	Wetlands of South Odisha	[28]
155	<i>Lindernia anagallis</i> (Burm.f.) Pennell (Scrophulariaceae)	n.s	Whole plant	Paste of the whole plant along with black pepper	Gonorrhoea	Wetlands of South Odisha	[28]
156	<i>Logodium flexuosum</i> (L.) Sw. (Lygodiaceae)	Indrajal, Dokeri	Root	Root (15 g) with 7 black peppers made into a paste and given twice a day for 4 days	Dysmenorrhoea	Kalinga, Phulbani,	[26]
157	<i>Madhuca indica</i> Gmel (Sapotaceae)	Mahula	Flower Root	Unspecified	Impotency	Kandhamal	[34]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
158	<i>Magnolia champaca</i> L. (Magnoliaceae)	Champa	Bark, leaf	Decoction of leaf and bark is used	Post-natal complaints	Kantapada block, Cuttack	[15]
159	<i>Mallotus philippinensis</i> Muell.Arg. (Euphorbiaceae)	Sinduri	Fruit	Fruit paste	Menstrual disorder, Urinary infection	Similipal, Mayurbhanj	[11]
160	<i>Mangifera indica</i> L. (Anacardiaceae)	Amba	Seed	1-2 mango kernels are pounded together with 7 or 21 black peppers (dried seeds of <i>Piper nigrum</i> L.). The patient is administered the mixture along with one glass of raw milk for the next 21 days, two times a day. 2 fresh mango kernels are pounded and pasted with an equal proportion of jaggery (or sugar) or root juice of <i>Asparagus racemosus</i> Willd. The patient is administered for the next 21 days, two times a day	Dysmenorrhoea, Menorrhagia, Leucorrhoea, Metrorrhagia, Menstrual complaints, Spermatorrhoea Impotency, Spermatorrhoea	Kandhamal	[33]
			Root, bark, Seed	Unspecified	Syphilis	Angul-Talcher mining region	[23]
			Leaf petiole	Seven petioles of the leaves are chewed completely followed by drinking 500 ml of well-water.	Dysuria	Dhenkanal	[16]
			Fruit	Fruit paste	Menstrual disorder, Urinary infection	Malkangiri	[47]
161	<i>Marsilea quadrifolia</i> L. (Marsileaceae)	Sunsunia	Leaf	Leaf juice with <i>Asparagus racemosus</i> and sugar candy powder OR Leaf juice can be taken along with ginger juice	Oligospermia	Wetlands of South Odisha	[28]
162	<i>Martynia annua</i> L. (Martyniaceae)	n.s	Fruit, Bark	Unspecified	Gonorrhoea	Kaptipada forest, Mayurbhanj	[9]
163	<i>Mesua ferrae</i> L. (Clusiaceae)	Nageswara	Stem	Stem crushed in water and the extract taken twice a day for one week	Leucorrhoea	Deulatota, Gadapur, Phulbani	[26]
			Flower and oil	Unspecified	Low libido	Saptasajya, Dhenkanal	[39]
			Flower	Unspecified	Leucorrhoea, Menorrhagia	Kandhamal	[34]
164	<i>Michelia champaca</i> L. (Magnoliaceae)	Champa	Bark	Dried stem bark with water	Oligomenorrhoea	Bhadrak	[21]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref	
165	<i>Mimosa pudica</i> L. (Mimosaceae)	Lajakuli	Leaf	Leaf juice drunk after meals	Dysuria	Gopalmadhav, Bhadrak	[22]	
			Root	Unspecified	Urinary tract infection	Rajikakhola, Nediguda, Badruguda, Phulbani	[38]	
			Leaf	Two teaspoons of fresh leaf juice along with one teaspoon of processed sugar taken orally in empty stomach in the morning for 15 days	Impotency, Spermatorrhea	Kandhamal	[33]	
			Root	Root paste is applied overnight	Hydrocele	Nuapada	[27]	
			Root, Leaves	Unspecified	Uterus infection	Angul-Talcher Mining region	[23]	
			Root	The root powder is consumed along with cow milk	Low libido	Dhenkanal	[12]	
			Root	Raw root tip, paste of root	Unwanted pregnancy	Sacred forest Western Odisha	[30]	
166	<i>Mimosops elengi</i> L. (Sapotaceae)	Bakula	Seed	2-3 seeds crushed and given twice a day for 7 days	Urinary tract infection and genital problems	Rajgangpur, Sundargarh	[5]	
167	<i>Mirabilis jalapa</i> L. (Nyctaginaceae)	Rangani	Root	The fresh juice of the root is taken orally twice a day for 10 days	Urinary tract infections,	Kantapada block, Cuttack	[15]	
168	<i>Mitragyana parvifolia</i> (Roxb.) Korth (Rubiaceae)	Mundi, Muyeed, Kurmo	Bark	Bark powder is given with milk	Premature ejaculation	Nuapada	[17]	
169	<i>Morinda tometosa</i> Heyne ex: Roth (Rubiaceae)	Achhu	Stem	Stem bark powder eaten with honey 2 times daily	Menstrual disorders	Bhadrak,	[22]	
170	<i>Moringa oleifera</i> Lam. (Moringaceae)	Sajana	Root, bark	Root and bark with warm milk	Unwanted pregnancy	Bhadrak	[42]	
171	<i>Mucuna nigricans</i> (Lour.) Steudel (Fabaceae)	Gond	Seed	Seed paste used as a local applicant	Ulcers of genital organs for both sex	Harishankar, Patther, Bolangi	[42]	
172	<i>Mucuna pruriens</i> (L.) DC (Fabaceae)	Baidanka	Seed	Seeds are sun-dried and boiled with cow milk to purify. 10 g of the purified seeds are sun-dried again and pounded. The patient is administered, one teaspoon of this powder along with 250 ml of raw cow milk to be taken for the next 30 days, two times a day on an empty stomach	Gonorrhoea, Impotency, Spermatorrhea, Leucorrhoea, Metrorrhagia	Kandhamal	[33]	
			Kursa, Baikhuje	Seed	About 1 g of seed paste is administered once a daily for 3 days	Abortion	Rayagada	[29]
			Baidanka	Seed	Seed paste	Sexually transmitted diseases.	Similipal, Mayurbhanj	[11]
			Root, Leaf, fruit	Unspecified	Gonorrhoea, Sterility	Angul-Talcher mining region	[23]	

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
173	<i>Nelsonia canescens</i> (Lam.) Spreng. (Acanthaceae)	Bramhadandi, Badarasana	Leaf	One tablespoon of leaf juice with milk is given for 3 days	Oligomenorrhoea	Kalahandi	[41]
174	<i>Nelumbo nucifera</i> Gaertn (Nelumbonaceae)	Padma	Flower Leaf Petal, Tuber Rhizome	Unspecified Decoction of rhizome	Dysmenorrhoea Leucorrhoea, other menstrual problems	Kaptipada forest, Mayurbhanj Bhadrak	[9] [21]
175	<i>Neolamarckia cadamba</i> (Roxb.) Bosser. (Rubiaceae)	Kadamba	Leaf	10–15 ml of fresh leaf juice is given	Leucorrhoea, Hypomenorrhoea	Khordha and Nayagarh, Undivided Puri	[6]
176	<i>Nicotina tobacum</i> Linne. (Solanaceae)	Dhuanpatra	Leaf	1-2 leaves are taken once a day regularly	Nephrolithiasis	Nayagarh	[50]
177	<i>Nymphaea nouchali</i> Burm. f. (Nymphaeaceae)	Nila kain	Rhizome	Rhizome paste with honey	Oligomenorrhoea	Bhadrak	[21]
178	<i>Nymphaea pubescens</i> Willd. (Nymphaeaceae)	Dhala kain, Nali kain	Rhizome Root	Rhizome juice Root paste of the red-flowered plant	Leucorrhoea Dysuria, Menorrhagia	Wetlands of South Odisha	[28]
				A paste of <i>Hibiscus rosa-sinensis</i> , Bark of <i>Ficus religiosa</i> , and seeds of <i>Sesamum indicum</i> is made. <i>d.n.s</i>	Unwanted pregnancy		
179	<i>Nymphaea stellate</i> Burm.f. (Nymphaeaceae)	Nalikainphul	Rhizome	5 g of rhizome powder is administered once daily for 1 month	Breast abscess	Rayagada	[29]
180	<i>Ocimum basilicum</i> L (Lamiaceae)	Durlava	Leaf, Seed Leaf	Unspecified Powder or decoction is consumed orally	Dysuria Dysuria	Kandhamal Ganjam	[34] [40]
181	<i>Ocimum sanctum</i> L. (Lamiaceae)	Tulasi	Leaf	10 ml. of leaf juice is taken in empty stomach for 15 days	Polyuria	Koenjhar	[13]
182	<i>Ocimum tenuiflorum</i> L. (Lamiaceae)	Tulsi	Leaf	Leaf juice with Jaggery and cow milk Fresh leaves <i>d.n.s</i>	Post-natal complaints Urinary tract infection	Bhadrak Similipal, Mayurbhanj	[21] [11]
183	<i>Oroxylum indicum</i> (L.) Vent. (Bignoniaceae)	Phaphuni	Bark	With an equal quantity of mango bark dried and powdered, 6 g of the same given twice a day for 2-3 days	Post-natal complaint	Belghar, Phulbani,	[18]
		Phanaphania	Bark	Decoction (10 ml) of bark with little butter given once daily at night for 3 days	Polyuria	Jareikela, Sundargarh	[5]
			n.s	Unspecified	Polyuria	Orissa state	[32]
			Root, flower, seed	Root and flower paste is taken orally, Dried seeds powder	Leucorrhoea, Infertility in women	Mohana, Gajapati	[3]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
184	<i>Orthosiphon rubicundus</i> (Don) Benth. (Lamiaceae)	Bhuimendar	Root	Mix it with roots of <i>Smilax ovalifolia</i> & <i>Cissampelos pareira</i> L. And few black pepper berries made into a paste and given 10 g twice a day for 3-4 days. With the root of 'Swetamadar' [white flowered <i>Calotropis gigantea</i> (L) R. Br, <i>Croton roxburghii</i> Balak, <i>Zingiber montanum</i> and (L) Copel <i>Tectaria cicutaria</i> taken in equal quantities, powdered, and given with cow's milk to women, 10g twice a day for 7 days after menstruation	Haematuria Difficulty in conception	Jalmahadev, Sambalpur Junadihi, Sambalpur	[42]
185	<i>Oryza sativa</i> Linn. (Poaceae)	Dhana	Straw	Some pieces of straw are chewed and juice is swallowed	Dysuria	Kalahandi	[41]
186	<i>Oxystelma esculenta</i> Linn. f. (Asclepiadaceae)	Dudel	Tuber	Tuber juice with milk is taken daily in the morning for 3 days	Dysmenorrhoea	Kalahandi	[41]
187	<i>Pavetta crassicaulis</i> Bremek. (Rubiaceae)	Gurvelli, Dhangri char	Root bark, Twig	Root bark decoction of <i>Pavetta crassicaulis</i> and <i>Hibiscus manihut</i> is given for 3 days Twig is used as a toothbrush	Unwanted pregnancy	Kalahandi	[41]
188	<i>Pedaliium murex</i> L (Pedaliaceae)	Gokhara	Leaf, fruit or seeds	Leaves, seeds, and fruits of the plant are soaked in water or milk and a mucilaginous infusion is formed. <i>d.n.s</i>	Dysuria, Gonorrhoea	Kaptipada forest of Mayurbhanj, Coastal sand dunes of Orissa	[8]
			Leaf, Fruits	Leaves and fruits ground together into a paste and are applied on testicles for a week	Hydrocele	Boudh	[10]
189	<i>Peperomia pellucida</i> (L.) Kunth (Piperomiaceae)	Banpipili	Root	Grounded roots are taken orally once a day	labor pain issues	Rayagada	[29]
190	<i>Pergularia demia</i> (Forssk.) Chiov (Asclepiadaceae)	Uturuli	Root	3 g of dried root powder mixed with a glass of water once a day for 3 days on an empty stomach	To induce abortion for 1-2 months of pregnancy	Rayagada	[29]
			Whole plant	Whole plant paste	Menstrual problems	Similipal biosphere reserve, Mayurbhanj	[11]
191	<i>Phoenix acaulis</i> Buch.Ham. ex Roxb. (Arecaceae)	Khajuri	Root	Roots are washed and pounded to extract their juice. The patient is administered, one teaspoon of the juice along with 250 ml of warm water for the next seven days, 2 times a day on an empty stomach	Spermatorrhoea	Kandhamal	[33]
			Leaf	5-6 young leaf tips are chewed and swallowed 3-4 times a day for the next seven days	Dysuria		
			Fruit	Unspecified	Low libido, Spermatorrhoea	Angul-Talcher mining region	[23]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref		
192	<i>Phyllanthus asperulatus</i> Hutch. (Euphorbiaceae)	Bhuin anla	Leaf	The leaves mixed with the grains of (<i>Paniculum</i> sp.), a grass	Low libido	Orissa	[48]		
193	<i>Phyllanthus emblica</i> L. (Phyllanthaceae)	Aonla	Seed	Seed paste <i>d.n.s</i>	Leucorrhoea	Bhadrak	[21]		
194	<i>Phyllanthus fraternus</i> Webster (Euphorbiaceae)	Bhuin aenla	Root, plant, shoot	Unspecified	Uro-genital infections	Kaptipada forest, Mayurbhanj	[9]		
			Leaf	About 10 g of leaves grounded with water and consumed	Leucorrhoea	Rayagada	[29]		
195	<i>Phyllanthus niruri</i> L. (Phyllanthaceae)	Anla	Whole plant	Plant extract is given orally for 3-4 days	Nephrolithiasis, Dysuria	Dhenkanal	[16]		
			Whole plant	Unspecified	Leucorrhoea	Kandhamal	[34]		
				Oral consumption of decoction	Leucorrhoea	Ganjam	[40]		
196	<i>Piper nigrum</i> L. (Piperaceae)	Gol maricha	Fruit	Unspecified	Nephrolithiasis, gall bladder stones	Kantapada Block, Cuttack	[15]		
			Seed	Decoction of seed	Leucorrhoea	Kandhamal	[34]		
197	<i>Pistia stratiotes</i> L. (Araceae)	Borjhanji	Fruit	Unspecified	Dysmenorrhoea	Kandhamal	[34]		
			Seed	Decoction of seed	Post-natal complaints	Bhadrak	[21]		
197	<i>Pistia stratiotes</i> L. (Araceae)	Borjhanji	Whole plant	Plant decoction	Dysuria	Wetlands of South Odisha	[28]		
198	<i>Plumbago indica</i> L. (Plumbaginaceae)	Nalichitrak	Root	Root paste applied locally	Hydrocele	Singuda, Bhadrak, Kandhamal	[22]		
			Raktachitapar a	Root	Twenty grams of fresh root paste along with equal amount of preserved gur taken orally in empty stomach (single dose)	Amenorrhoea, Dysmenorrhoea, Menorrhagia		[33]	
			Chitaparua, Raktachitapar a	Leaf, stem, fruit	Unspecified	Leucorrhoea, Unwanted pregnancy	Kaptipada forest, Mayurbhanj	[9]	
199	<i>Plumbago rosea</i> L. (Plumbaginaceae)	Raktachita	Root	Unspecified	To expel the placenta	Kalahandi	[41]		
					A piece of root is inserted into the uterus	Gynecological problems	Boudh	[10]	
199	<i>Plumbago rosea</i> L. (Plumbaginaceae)	Raktachita	Root	Unspecified	Contraception	Keonjhar, Similipal, Mayurbhanj	[31]		
						Contraception	Panigunda of Ganjam	[48]	
200	<i>Plumbago zeylanica</i> L. (Plumbaginaceae)	Chitaparua/ Chintamula	Root	Root juice or paste in cow milk is given for 7 days	Unwanted pregnancy, Contraception	Tikabali of Phulbani	[42]		
					Root paste made into pills and 2 pills taken twice a day for 5 days	Unwanted pregnancy up to 3 months	Boudh	[10]	
						Unwanted pregnancy	Kaptipada forest, Mayurbhanj	[9]	
					Root	2 g of this powder is taken by the patient with water twice.	Unwanted pregnancy	Malkangiri	[51]
					Chitrak	Root	The root powder is given once daily to pregnant women for 7 days	Labour pain issues	Baljitpada, Bhadrak,
		Sitaparua	Root	2 g of this powder is taken by the patient with water twice.	Unwanted pregnancy	Malkangiri	[51]		

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
201	<i>Polyathia longifolia</i> Sonn (Annonaceae)	Kastadaru	Stem bark	A paste of the bark stem is made. This paste is applied along with butter on the genital area	Gonorrhoea	Khordha and Nayagarh, Undivided Puri	[6]
202	<i>Pongamia pinnata</i> (L.) Pierre. (Fabaceae)	Karanja	Bark, leaf	10-20 ml of bark, leaf juice	Gonorrhoea	Mayurbhanj	[25]
203	<i>Pongmia glabera</i> Ven. (Fabaceae)	Karanja	Bark	The filtrate of 15 g of bark boiled in 100ml of water, is consumed	Post-natal complaints	Dhenkanal	[12]
204	<i>Pterocarpus santalinus</i> L.f. (Fabaceae)	Raktachandan a		Heartwood is rubbed on a piece of stone and the paste (about 5 g) given with a glass of water	Uro-genital infections, Polyuria	Dhenkanal	[16]
205	<i>Pterospermum marsupium</i> Roxb. (Fabaceae)	Piasal	Bark	Paste of bark with honey	Leucorrhoea, Menorrhagia	Bhadrak	[21]
			Seeds	Seeds are pounded to make a paste. The patient is administered, 10 g of this paste along with 250 ml of raw cow milk for the next 21 days, two times a day on an empty stomach The bark is washed and 20 g of bark is boiled along with 1 liter of water in low flame till it becomes 200 ml. The patient is administered one cup of this decoction along with powdered seven black pepper (dried seeds of <i>Piper nigrum</i> L.) for the next 21 days, 2 times a day to be taken on an empty stomach	Spermatorrhoea, Leucorrhoea, Metrorrhagia, Amenorrhoea, Dysmenorrhoea, Menorrhagia, Impotency	Kandhamal	[33]
206	<i>Pterospermum xylocarpum</i> (Gaertn.) Sant & Wagh (Sterculiaceae)	Muchkunda	Flower, Root	Flower and root paste (10 mg) daily for 3 days	Menstrual disorder	Sambalpur,	[42]
			Stem bark	Stem bark, decoction drunk once daily	Menorrhagia	Paliabindha, Bhadrak	[22]
			Seeds	Fresh collected seeds are soaked in about 5ml of water overnight and the decoction is taken once every day for the next 15 days	Postnatal complaints	Rayagada	[29]
207	<i>Pueraria tuberosa</i> (Roxb.ex Willd.) DC. (Fabaceae)	Pordhamara	Rhizome	3 g rhizome powder is administered once daily for 15 days	To increase lactation	Rayagada	[29]
		Bhuinkakharu	Tuber	Tuber powder	Unwanted pregnancy	Similipal, Mayurbhanj	[11]
218	<i>Punica granatum</i> Linn. (Puniaceae)	Dalimba	Unripe fruit	Unripe fruit paste with fermented rice water is given for 3-5 days	Amenorrhoea	Kalahandi	[41]
			Flower	Paste of flower with honey	Leucorrhoea, menorrhagia	Bhadrak	[21]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
219	<i>Putranjiva roxburghii</i> Wall. (Euphorbiaceae)	Putranjivah	Whole plant	Half teaspoon of the whole plant and cucumber seed powder is twice daily for the next 3 months	Infertility in women	Khordha and Nayagarh, Undivided Puri	[6]
220	<i>Rauvolfia Serpentina</i> (L.) Benth (Apocynaceae)	Patalgaruda	Whole plant	With Pippali and Sunthi in equal quantities powdered 3 g powder per dose given thrice a day for 3-4 days.	Oligomenorrhoea	Gariapara ghat, Phulbani	[18]
			n.s	Unspecified		Orissa state	[32]
			Leaf	10ml of leaf extract mixed with 5 g leaf powder of <i>Withiana somnifera</i> and one teaspoon full of honey is administered for 10 days	Leucorrhoea	Rayagada	[29]
			Whole plant	One teaspoon of dried whole plant of Indian snakeroot with a glass of warm water is given once a day for the next 3 to 4 days	Leucorrhoea	Khordha and Nayagarh, Undivided Puri	[6]
		Sarpagandha	Root	Root decoction with cow milk	Uterine contraction for parturition	Bhadrak	[21]
211	<i>Saccharum spontaneum</i> L. (Poaceae)	Kuiso	Root	Paste from the whole root of a plant with 21 black peppers with the required quantity of water applied locally	Hydrocele	Phulbani	[18]
212	<i>Salvia santolinaefolia</i> Boiss (Lamiaceae)	n.s	Leaf, Seed	Unspecified	Gonorrhoea	Kaptipada forest, Mayurbhanj	[9]
213	<i>Saraca asoca</i> (Roxb.) de Willde (Caesalpiniaceae)	Ashoka	Seed	Two spoons of the mixture of 1-2 g of seed paste with water are taken once per day regularly	Nephrolithiasis, Dbutea monospermaire sis	Coastal districts of Odisha	[49]
					Gynecological problems	Boudh Kandhamal	[10] [34]
			Bark	Bark powder/Paste/Decoction is taken on an empty stomach twice daily for about a month.	Menorrhagia, Dysmenorrhoea, Oligomenorrhoea, Hypomenorrea	Similipal, Mayurbhanj, Mohana, Gajapati, Koenjhar	[11] [3] [13]
					Oligomenorrhoea, Dysuria.	Bhadrak	[21]
						Khordha and Nayagarh, Undivided Puri	[6]
			Bark, seed, flower	Unspecified	Diuresis, Uterine stimulant and ovarian tissue, Urinary discharge	Kantapada Block, Cuttack	[15]
				Orally raw or decoction is administered	Dysuria, Oligomenorrhoea	Ganjam	[40]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
214	<i>Saraca indica</i> L. (Fabaceae)	Ashoka	Seed	2 teaspoon of seed paste is given once per a day	Diuresis	Khordha and Nayagarh, Undivided Puri	[6]
215	<i>Scleria terrestris</i> (L.) Fassett. (Cyperaceae)	Churia, Jhurian	Whole plant	Paste (15-20 g) given once daily for 3 days	Spermatorrhoea	Jalmahadev, Sambalpur	[42]
216	<i>Scoparia dulcis</i> L. (Scrophulariaceae)	Banaganjei, Sarukucha	Whole plant	Crushed and aqueous extract of aerial part of the plant given twice a day for 5 days	Spermatorrhoea	Mandakia, Phulbani	[26]
		Banaganjei, Chireita	Leaf	Leaves are chewed in empty stomach	Gonorrhoea	Wetlands of South Odisha	[28]
		Badi awala, Surja Rashi, Gharipudiya	Whole plant	Plant powdered and made into pills. These pills are taken with milk daily	Erectile dysfunction	Nuapada	[44]
217	<i>Scurrula parasitica</i> L. (Loranthaceae)	Dhatkimadana	Whole plant	Whole paste (10-15 g) with sugar candy given to women after 3 months of pregnancy for 15-20 days	Longing for a male child	Junadihi, Sambalpur	[42]
218	<i>Sebastiania chamelea</i> (L.) Mull.Arg. (Euphorbiaceae)	Anjidray	Bark	Boil bark in water used locally.	Syphilis	Koraput,	[7]
219	<i>Semecarpus anacardium</i> L.f (Anacardiaceae)	Bhalia	Fruit	Unspecified	Uterine stimulant	Angul Talcher mining region	[23]
220	<i>Sesamum indicum</i> L. (Pedaliaceae)	Rashi	Seeds	5 g seeds along with seeds of <i>Tribullusterrestris</i> (1:1) boiled in 150ml goat milk and given with honey to males	Low libido	Nuagaon, Sundargarh,	[5]
			Leaf, Seed	Unspecified	Low libido, Infertility women	Orissa state	[32]
				Unspecified	Urinary tract infections	Kaptipada forest, Mayurbhanj	[9]
221	<i>Shorea robusta</i> Gaertn.f. (Dipterocarpaceae)	Sala	Bark	About 20 g of fresh stem bark is boiled in 1 L of water till it became one-fourth of its volume. One cup of this decoction along with one teaspoon of honey taken orally in empty stomach twice daily for 15 to 21 days	Spermatorrhoea, Leucorrhoea, Metrorrhagia, Amenorrhoea, Dysmenorrhoea, Sterility	Kandhamal	[33]
			Bark, fruit	Unspecified	Spermatorrhoea	Angul-Talcher Mining region	[23]
			Whole plant	Unspecified	Urinary tract infections	Malkangiri	[47]
222	<i>Sida cordata</i> (Burm.f.) Borss. (Malvaceae)	Biskhapuri	Root	Root pounded together with <i>Celastruspaniculatus</i> Willd. (2:1), taken twice a day for one month	Amenorrhoea	Jamugurha, Belghar, Phulbani,	[26]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
223	<i>Sida cordifolia</i> L. (Malvaceae)	Bajramuli	Seeds	Unspecified	Gonorrhea	Coastal sand dunes	[8]
			Root, leaf	Unspecified	Urinary troubles, Haematuria	Kaptipada forest, Mayurbhanj	[9]
		Bala	Root	Unspecified	Urinary troubles, Haematuria, Gonorrhea, cystitis, Leucorrhoea	Nayagarh	[50]
224	<i>Smilax ovalifolia</i> Roxb. (Liliaceae)	Muturilaha	Leaf, root	The juice made from smashed root mixed with root paste of Satabari (<i>Asparagus racemosus Willd.</i>) is taken orally	Spermatorrhoea	Tikabali, Phulbani	[43]
			Root	Food is given on plates made up of leaves of the plant, root powder is given thrice daily for 7 days	Sexually transmitted diseases	Koenjhar	[13]
				10 ml root juice is consumed orally	Dysuria, Meterrohoea, Amenorrhoea	Mayurbhanj	[25]
225	<i>Smilax perfoliata</i> Lour (Smilacaceae)	Ramdantuni	Root	Root paste <i>d.n.s</i>	Spermatorrhoea, Leucorrhoea	Angul-Talcher mining region	[23]
					Gynecological problems	Similipal, Mayurbhanj	[11]
226	<i>Smilax zeylanica</i> L. (Liliaceae)	Muturi	Root	Roots are sun-dried and pounded. 10 g of this powder, <i>Asparagus racemosus Willd</i> along with 20 g of gur (or sugar) The patient is administered this mixture along with 250 ml of cold water for the next one month on an empty stomach	Leucorrhoea, Metrorrhagia, Spermatorrhoea	Orissa	[33]
					Muturimal	Root	5 g of root powder mixed with 5 g of dried <i>Zingiber officinalis</i> powder is taken in the early morning
		Muturi	Root	The root is smashed and mixed with the root paste of Satabari (<i>Asparagus racemosus Willd.</i>). This juice is taken for a week	Spermatorrhoea, Leucorrhoea.	Tikabali, Phulbani Angul-Talcher Mining region	[38] [23]
227	<i>Solanum nigrum</i> L. (Solanaceae)	Nunununia	Ripe fruits	Unspecified	Sexually transmitted diseases	Koenjhar	[13]
					Diuresis	Kantapada block, Cuttack	[15]
228	<i>Solanum surattense</i> L. (Solanaceae)	Kantakari	Whole plant	Unspecified	Gonorrhea	Nayagarh	[50]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
229	<i>Solanum torvum</i> Sw. (Solanaceae)	Dengabheji	Fruit	Boiled decoction of the fruit	Haematuria	Similipal, Mayurbhanj	[11]
230	<i>Solanum violaceum</i> Orteg. (Solanaceae)		Root	Unspecified	Post-natal complaints	Kaptipada forest, Mayurbhanj	[9]
231	<i>Solanum virginianum</i> L. (Solanaceae)	Ranganijanu m	Root	The juices of the root and honey in a proportion of 2:1 is administered orally	Dysuria	Dhenkanal	[16]
232	<i>Sopubia delphinifolia</i> G. Don (Orobanchaceae)	Pani sungaha	Whole plant	Whole plant is boiled with <i>Solanum virginianum</i> (Bheji baigana) and <i>Nyctanthes arbortristis</i> (Ganga siwali) and given the next morning	Urinary pigmentation	Nuapada	[17]
233	<i>Soymida febriguga</i> A. Juss. (Meliaceae)	Ruhen	Bark	Bark paste is used <i>d.n.s</i>	Menstrual disorder	Sacred forest of Western Odisha	[30]
234	<i>Spermadictyon suaveolens</i> Roxb (Rubiaceae)	Tribason	Root	Root (25 g) and 4 black peppers ground in cow's milk and paste given to women on empty stomach once daily for 7 days after menstruation.	Contraception	Pathar, Bolangir	[42]
235	<i>Sphaeranthus indicus</i> L. (Asteraceae)	Bhuikadam, Batiphul Koirab	n.s Whole plant	Unspecified The whole plant is boiled in water and jaggery. This is stored in an earthen pot for the next 15 days to make the decoction <i>d.n.s</i>	Polyuria Post-natal complaints	Koraput Dhenkanal	[20] [16]
236	<i>Spondias pinnata</i> (L. f.) Jain Kurz (Anacardiaceae)	Salama	Plant, Bark Root	Unspecified Root paste (<i>d.n.s</i>)	Menstrual disorder Menstrual disorder	Kaptipada forest, Mayurbhanj Bhadrak	[9] [21]
237	<i>Streblus asper</i> Lour. (Moraceae)	Sahada	Root Leaf, Latex, Bark, Root Root	the root bark of <i>Holarrhena antidysenterica</i> (L.) Wall. <i>exDC</i> , 2:1 crushed together and aqueous extract thus obtained given twice a day for one month Unspecified Root powder	Leucorrhoea Labour pain issues Oligomenorrhoea	Takalmendi, Pasora, Phulbani, Kaptipada forest, Mayurbhanj Similipal, Mayurbhanj	[26] [9] [11]
238	<i>Strychnos nux-vomica</i> L. (Loganiaceae)	Kuchila	Seed	Seed powder with water	Menstrual disorder	Bhadrak	[21]
239	<i>Symphorema involucretum</i> Roxb. (Verbenaceae)	Badi chang	Root	One inch of root with 3 banana flowers and seeds of <i>Semecarpus anacardium</i> (Bheluwa) pasted with molasses (Gud). This is given for 3 days after completion of the monthly cycle	Contraception	Nuapada	[17]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
240	<i>Syzygium cumini</i> (L.) Skeels (Myrtaceae)	Jamu	Stem bark	Juice of stem bark along with a little pepper powder is to be taken two times in a month along with cow milk	Nephrolithiasis	Boudh, Nayagarh	[10] [50]
241	<i>Tadehagi triquetrum</i> (L.) Ohashe (Fabaceae)	Dhuajabhang o	Root	Root paste applied on the penis	Low libido	Phulabani,	[18]
242	<i>Tamarindus indica</i> L. (Fabaceae)	Tentuli	Fruit	Fruit paste with honey	Menorrhagia	Bhadrak	[21]
243	<i>Tectariaci cutaria</i> (L.) Copel. (Tectariaceae)	Raktamahajal	Rhizome	Rhizome paste (10 g) with that of <i>Zingiber montanu</i> and root of <i>Croton roxburghii</i> Balakin equal quantities made into paste given Rhizome powder (15 g), the root of <i>Cissampelos pereira</i> , and <i>Smilax ovalifolia</i> in equal proportions given to women	Menstrual disorder Leucorrhoea	Nursinghanath, Patthar, Bolangir Guptamahadev, Sambalpur	[42]
244	<i>Tephrosia purpurea</i> (L.) Pers. (Fabaceae)	Bana kulathi	Leaf	Leaf decoction with honey	Post-natal complaints	Bhadrak	[21]
245	<i>Terminalia arjuna</i> Wight., Am (Combretaceae)	Arjuna	Bark	Bark powder of <i>Terminalia arjuna</i> mixed with the juice of <i>Adhatada vasica</i> and <i>Helicteres isora</i> is consumed twice a day for 7 days Stem bark with honey and water	Urinary tract infection Leucorrhoea, menorrhagia	Dhenkanal Bhadrak	[12] [21]
			Whole plant	Decoction of the whole plant is taken orally Unspecified	Spermatorrhoea Spermatorrhoea	Ganjam Kandhamal	[40] [34]
246	<i>Terminalia chebula</i> Retz. (Combretaceae)	Harida	Fruit	Grounded fruits administered once a day	Low lactation/ Post-natal complaints	Rayagada	[29]
247	<i>Tinospora cordifolia</i> Willd. (Menispermaceae)	Guluchi	Whole plant	Aqueous extract of the whole plant given once a day with honey for a week	Spermatorrhoea	Jamugurha, Belghar, Phulbani	[26]
			Stem	The stem is washed and pounded to extract the juice. The patient is administered, 4 teaspoons of this juice along with 1 teaspoon of honey for the next 7 days, 2 times a day.	Spermatorrhoea, leucorrhoea Impotency, sterility	Kandhamal	[33]
			Stem	10 g of Stem powder is prescribed for 7 days with 2-3 g of black peppers (<i>Piper nigrum</i>) powder.	Urinary tract infections	Dhenkanal	[12] [16]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
248	<i>Tribulus terrestris</i> Linn. (Zygophyllaceae)	Gokhura	Root	1-2 spoons of root paste are taken with milk after 3 rd day of menstruation for 4-7 days	Oligomenorrhea	Kalahandi	[41]
			Whole plant	Whole plant decoction is taken twice a day	Dysuria	Coastal districts Of Odisha	[49]
			Fruit	15 ml of matured fruit Infusion is prescribed early in the morning on an empty stomach	Dysuria, other urinary disorders.	Dhenkanal	[16]
			Fruit	Unspecified	Spermatorrhoea, Phosphoturia, Dysuria, Gonorrhoea, Urinary disorders (Calculus affections)	Nayagarh	[50]
249	<i>Trichosanthes cucumerina</i> L. (Cucurbitaceae)	Banpotal	Root	'Tejraj' (<i>Cyanoglossum glochidiatum</i> Wall. Ex Benth.) mixed with its root powder in equal proportion and given (10 g)	Impotency	Patthar, Bolangir	[42]
250	<i>Trigonella foenum-graecum</i> L. (Fabaceae)	Methi	Seed	Seed powder with water <i>d.n.s</i>	Dysmenorrhoea	Bhadrak	[21]
251	<i>Triumfetta rhomboidea</i> Jacq. (Tiliaceae)	Tatatatia	Root	Root paste <i>d.n.s</i>	Expedite delivery	Similipal, Mayurbhanj	[11]
252	<i>Tylophora indica</i> (Burm.f.) Merrill (Asclepiadaceae)	Chanur	Flower	Flowers fried in ghee are taken after the 5 th day of menstruation	Contraception	Kalahandi	[41]
253	<i>Vetiveria zizanioides</i> (L.) Nash (Poaceae)	Siron	Root	Roots (100 g) boiled in 500 ml water for 30 minutes and the filtrate (10 ml) is given with little sugar	Dysuria	Dhenkanal	[16]
254	<i>Vicoa auriculata</i> Cass. (Asteraceae)	Rumutintar		Unspecified	Unwanted pregnancy	Lanjia, Koraput,	[7]
255	<i>Vitex leucoxydon</i> L.f. (Verbenaceae)	Chadheigodia	Bark	40 ml bark decoction	Kidney disorder	Mayurbhanj	[25]
256	<i>Vitex negundo</i> L. (Verbenaceae)	Nirgundi	Shoot, Leaf	Unspecified	Unwanted pregnancy	Kaptipada forest, Mayurbhanj	[9]
257	<i>Wendlandia heynei</i> (Roem.& Sch.) Sant.Tilai&Merch (Rubiaceae)	Tilai	Root	Root (15 g) and 3 black pepper berries made into a paste and given once daily for 3 days after menses	Contraception	Jalmahadev, Sambalpur	[42]

Sl. No.	Scientific-name with family	Vernacular name	Parts used	Mode of administration	Type of ailment	Area/locality	Ref
258	<i>Withania somnifera</i> (L.) Dunal (Solanaceae)	Ashwagandha	Roots	5 g root paste given daily for seven days on an empty stomach.	Dysuria	Dhenkanal	[16]
				Unspecified	Spermatorrhoea	Nayagarh	[50]
259	<i>Woodfordia fruticosa</i> (L.) Kurz. (Lythraceae)	Dhataki	Flower	1-3 g of flower powder taken orally	Leucorrhoea, Gynecological disorders, Stimulant in pregnancy	Mayurbhanj	[25]
			Flower	5 g flower powder is taken twice daily with honey on an empty stomach	Dysmenorrhoea	Rayagada	[29]
			Root, flower	Unspecified	Urinary pigments	Angul-Talcher mining region	[23]
260	<i>Xanthium indicum</i> Koen. (Asteraceae)	Agira	n.s	Unspecified	Diuresis	Keonjhar, Similipal, Mayurbhanj	[31]
			Leaf, Root, Seed	Unspecified	Uro-genital infections	Kaptipada forest, Mayurbhanj	[9]
261	<i>Xylia xylocarpa</i> (Roxb) Taub (Mimosaceae)	Kongada	Seeds	Fried seeds are given to children <i>d.n.s</i>	Polyuria	Malayagiri, Dhenkanal	[46]
262	<i>Zingiber capitatum</i> Roxb. (Zingiberaceae)	Bhutanasan	Rhizome	Rhizome grounded together with <i>Tectaria cicutaria</i> Copel in equal proportions and given (10 g) <i>d.n.s</i>	Menstrual disorders	Nursingnath, Patthar, Bolangir.	[42]
263	<i>Zingiber officinale</i> Roscoe (Zingiberaceae)	Sunthi, Ada	Rhizome	Half a teaspoon of the rhizome powder is intake in half a liter of cold water for the next 15 days every night.	Chronic dysuria	Dhenkanal	[12] [16]
				Dried rhizome powder + powder of <i>piper longum</i> with cow ghee <i>d.n.s</i>	Post-natal complaints	Bhadrak	[21]
264	<i>Ziziphus mauritiana</i> Lam. (Rhamnaceae)	Barakoli	Whole plant	Unspecified	Low libido, Syphilis	Angul-Talcher mining region	[23]
			Bark	The paste is made with the bark of stem and little water <i>d.n.s</i>	Abdominal pain during pregnancy	Bhadrak	[21]

NOTE. **d.n.s* = Dosage not specified; **n.s* = Not specified.





Least used medicinal plants





There are few medically important plants enlisted in Table 1, which are not explored much in Odisha were listed in Table 3, which could provide scope for further research on these plants.





Statistical analysis



Based on the data (Table 1), various insights can be deduced, which are presented in the sections below. Statistical analysis was conducted using MS office 2013, software and the results were presented in different chart form.

Table 2 List of best explored medicinal plants of Odisha for urogenital disorders

Name of the plant species	Active ingredients	Activities of plant parts	*Clinical trials done?
<p><i>Abrus precatorious</i></p> 	<p>Seed methanolic extract: alkaloids, glycosides, flavonoids, steroids, saponins, phytosterol, terpenoids, tannins, phenols [51].</p> <p>Leaf ethanolic extract: proteins, flavonoids, tannins, saponins, terpenoids, alkaloids, little sugars, carbohydrates [52].</p>	<p>Seed-Unwanted pregnancy, contraception.</p> <p>Root-Diuresis</p> <p>Leaf-Urethritis, urinary problems, leucorrhea</p>	Not found
<p><i>Achyranthes aspera</i></p> 	<p>Leaf methanol extract: carbohydrates, steroids, phenolic compounds, cardiac glycosides, tannins, alkaloids, reduced sugar [54, 55].</p> <p>Flower methanol extract: tannins and alkaloids [55].</p> <p>The stem: terpenoids, reducing sugar, cardiac glycosides [54].</p>	<p>Root and leaf -Expedite delivery,</p> <p>Whole plant-Labour pain issues, Oligomenorrhea</p>	Not found
<p><i>Ageratum conyzoides</i></p> 	<p>Leaf methanol extract: flavonoid, protein, tannin.</p> <p>Petroleum ether extract: sterols and triterpenes.</p> <p>Chloroform extract: sterol, triterpenes, glycoside, and proteins [56].</p>	<p>Root- Enuresis, Dysmenorrhea,</p> <p>Leaf- Enuresis</p>	Ageratum conyzoides may be an effective treatment for reducing symptoms of BPH (Benign prostrate hypertrophy) in healthy men through inhibition of 5-alpha-reductase enzyme activity [57].
<p><i>Argemone maxicana</i></p> 	<p>Seed aqueous extract: polyphenols, phenolics, and free acids</p> <p>Seed methanol extract: polyphenols and phenolics.</p> <p>The fresh yellow milky extract: protein-dissolving substances effective in treating diuretics [58].</p> <p>Leaf ethanol extract: alkaloids, protein, glycoside, tannins, flavonoids, steroids and phenols [59].</p>	<p>Root- syphilis Menorrhagia, spermatorrhea, urinary problems, gonorrhea</p> <p>Seeds-gonorrhea, syphilis</p> <p>Whole plant-Low libido</p> <p>Leaf-Leucorrhoea</p>	<p>Conducted on anti-Urolithiasis [60].</p> <p>For reduction in sperm count [61].</p>

Name of the plant species	Active ingredients	Activities of plant parts	*Clinical trials done?
<p><i>Asparagus racemosus</i></p> 	<p>Root methanolic extract: phytochemicals like phytosterols, triterpenoids, saponins, alkaloids, carbohydrates, flavonoids, lactones, tannins, phenolic compounds, protein, glycosides, fixed oils, and fatty acids [62].</p>	<p>Root- Post-natal complaints, spermatorrhea, hydrocele, low libido, leucorrhea, gonorrhoea, impotency, metrorrhagia, urinary disorder, protects pregnancy, haematuria, expedite delivery, miscarriage</p>	<p>Conducted on possible beneficial effects on female reproductive health disorders [63].</p>
<p><i>Boerhaavia diffusa</i></p> 	<p>Root and leaf methanolic extract: flavonoids, saponins, proteins, carbohydrates, phenols, alkaloids, glycosides, isoflavonoid, and rotenoids [64].</p>	<p>Whole plant- Menorrhagia, urinary problem, cystitis, nephrolithiasis, leucorrhea Root-Leucorrhea, metrorrhagia, spermatorrhea</p>	<p>Not found</p>
<p><i>Butea monosperma</i></p> 	<p>Flower constitutes phenol, alkaloid, flavonoid, anthocyanin, xanthophyll, saponin, beta-carotene, lycopene, and total carotenoids. Its ethanol extract contains phenol, alkaloid, flavonoid, xanthophyll, saponin, beta-carotene, lycopene, a total carotenoid [65, 66].</p>	<p>Seed- Unwanted pregnancy, contraception Bark- Menarch, Dysmenorrhoea, nephrolithiasis, leucorrhea, amenorrhoea, dysmenorrhoea, and other menstrual disorders Leaf- Difficulty in conception</p>	<p>Not found</p>
<p><i>Curculigo orchioides</i></p> 	<p>Leaf methanol extract reveals the presence of phytochemicals like carbohydrates, diterpenes, flavonoids, phenols, steroids, tannins. Rhizome has alkaloids, carbohydrates, flavonoids, flavones, phenols, saponins, steroids, tannins [67].</p>	<p>Root- STDs, Gonorrhoea, low libido, impotency, spermatorrhea, leucorrhea, metrorrhagia, dysuria, urinary tract infection, Stem- Oligomenorrhoea,</p>	<p>Not found</p>

Name of the plant species	Active ingredients	Activities of plant parts	*Clinical trials done?
<p><i>Cynodon dactylon</i></p> 	<p>Aerial part i.e. Stem ethanol extract: carbohydrate, flavonoids, proteins, alkaloids, saponin, and tannins [68].</p>	<p>Whole plant -Menstrual complaint, amenorrhea, menorrhagia, dysmenorrhagia, leucorrhea Leaf-dysuria, urinary tract infection, leucorrhea, metrorrhagia</p>	<p>Not found</p>
<p><i>Ficus benghalensis</i></p> 	<p>Fruit: Phytochemicals present in Fruit include protein, flavonoids, alkaloids, tannins, phenol, vitamin C, terpenoides, phlobatannins, chloride [69].</p> <p>Ethanol extract of leaves constitute alkaloids, carbohydrates, tannins, flavonoids, sterols [70].</p>	<p>Root- Syphilis, spermatorrhoea, low libido Leaf- Impotency, spermatorrhoea, Fruit- Spermatorrhoea Latex-Gonorrhoea</p>	<p>Not found</p>
<p><i>Gloriosa superba</i></p> 	<p>Proteins, phenols, tannins, starch, terpenoids, glycoside, alkaloids were present in a maximum amount in seed and tuber but they are absent in leaf and flower extracts. Saponin was present moderately in seed and tuber but absent in leaf [71].</p>	<p>Root- Unwanted pregnancy, labour pain issues, the expulsion of placenta Stem- White discharge during oligomenorrhoea Root, seed, and leaf-Kidney problem</p>	<p>Not found</p>
<p><i>Hygrophilla auriculata</i></p> 	<p>Whole plant extract in ethyl acetate has phytochemicals like alkaloids, proteins (highly present), saponin, terpenoid, steroid, flavonoid, cardio glycosides [72].</p>	<p>Seed- Gonorrhoea, impotency, spermatorrhoea, leucorrhoea, metorrhagia, Stem-Nephrolithiasis, urinary bladder stones Leaf- Urinary infection</p>	<p>Not found</p>

Name of the plant species	Active ingredients	Activities of plant parts	*Clinical trials done?
<p><i>Mimosa pudica</i></p> 	<p>Leaf methanol extract: Methanol extract of leaf contains carbohydrates, alkaloids, cardiac glycosides, flavonoids, phytosterols, phenols and tannins, proteins [73].</p> <p>Leaf ethanol extract: Ethanol extract of the leaf has tannins, proteins, and steroids whereas root has tannins and proteins [74].</p> <p>Whole plant ethanol extract: The whole plant ethanol extract has alkaloids, glycosides, carbohydrates, proteins, steroids, flavonoids, phenols [75].</p>	<p>Leaf-Dysuria, impotency, spermatorrhoea</p> <p>Root- Urinary tract infection, hydrocele, low libido, unwanted pregnancy</p>	<p>Conducted on patients with menorrhagia with a dose of 5ml of aqueous extract. Reduced bleeding was observed in 3 months [76].</p>
<p><i>Saraca asoca</i></p> 	<p>Bark has alkaloids, reducing sugar, glycosides, tannins, saponins, fixed oils. The flower has proteins, tannins, steroids, carbohydrates, flavonoids, glycosides, saponins [77].</p> <p>Bark, flower, and leaf: flavonoids, glycosides, saponins, phenols, steroids, tannins, triterpenoids [78].</p>	<p>Seed- Dysuria, nephrolithiasis, gynecological problems.</p> <p>Bark- Dysuria, Menorrhagia, dysmenorrhea, oligomenorrhoea, hypomenorrhoea.</p> <p>Bark, flower, and seed- Uterine stimulant, urinary discharge, ovarian tissues.</p>	<p>Conducted on management of menopausal syndrome [79].</p>

Results

Area wise distribution of referred therapies

Different ethnomedicinal survey reports from different districts were compiled in Figure 3 and it is evident that in areas like Mayurbhanj, Phulbani, Dhenkanal, Bhadrak, more research had been carried out and reported and possibly these areas are rich in medicinal flora. The maximum number of plant species are reported from the Mayurbhanj district, which has an approximate count of 73 species. Of the reported plant list *Abrus precatorius* L. (Fabaceae), *Asparagus racemosus* Willd. (Liliaceae), *Bombax ceiba* L. (Bombacaceae), *Streblus asper* Lour. (Moraceae), *Xanthium indicum* Koen. (Asteraceae) are frequently in use for curing urogenital issues. While Phulbani district is placed in the second position with around 48 reported medicinal plants. In this district plants like *Alstonia scholaris* (L.) R.Br. (Apocynaceae), *Argemone mexicana* L. (Papaveraceae), *Asparagus racemosus* Willd. (Liliaceae), *Cuscuta reflexa* Roxb. (Convolvulaceae), *Ficus benghalensis* L. (Moraceae) is repeatedly used for treatment. Third highest number i.e. 47 medicinal plants are reported from Dhenkanal district. *Abrus precatorius* L. (Fabaceae), *Aerva lanata* (L.) Juss.ex Sch (Amaranthaceae), *Bambusa arundinacea* Wild. (Poaceae), *Boerhavia diffusa* L. (Nyctaginaceae) is most prescribed to the patients in



this district. *Boerhavia diffusa* L. (Nyctaginaceae) is the frequently used herb in Bhadrak district, which is reported with 46 medicinal plants.

In the Kandhamal district, plants like *Argemone mexicana* L. (Papaveraceae), *Asparagus racemosus* Willd. (Liliaceae), *Curculigo orchoides* Gaertn. (Hypoxidaceae), *Mangifera indica* L. (Anacardiaceae), *Phoenix acaulis* Buch.Ham. ex Roxb. (Arecaceae), *Pterospermum marsupium* Roxb. (Fabaceae) are in frequent use, out of the 30 reported species. Inhabitants of the Kalahandi district depend more on plants like *Curculigo orchoides* Gaertn. (Hypoxidaceae), *Gloriosa superba* L. (Colchicaceae) from the 29 reported ethnomedicines for their treatment.

Categorization of urogenital problems

All the reported disorders can be categorized into eleven different types; those are summarized in Supplementary File 1. The statistical distribution of various classes of the urogenital disorder as per Supplementary File 1, prevalent in the study area is depicted in Figure 4. Issues of reproductive organ and reproductive health were grouped into one category, therefore the graph shows 10 categories of urogenital conditions in total. However, gynecological, reproductive, and excretory diseases are mostly documented in various reports, as exhibited in the graph.

Table 3 Medicinal plants yet to be explored/ need further studies

Name of the plant species	Active ingredients	Activities of plant parts	*Clinical trials done?
<p><i>Aloe vera</i></p> 	<p>Leaf gel: polysaccharides, sugars, minerals, proteins, and lipids, phenolic compounds. vitamins (Beta-carotene, C, E, B12, folic acid, choline) minerals (Ca, Cr, Cu, Se, Mg, Mn, K, Na, Zn), enzymes (aliphatic phosphatase, amylase, bradykinase, carboxy-peptidase, catalase, cellulase, lipase, peroxidase), monosaccharide sugars (glucose, fructose) Polysaccharide sugar (glucomannans, polymannose), 12 anthraquinones, 4 plant steroids, hormones (auxin, gibberelline), 20 amino acids, salicylic acid, lignin, saponin [80].</p>	<p>Leaf-Expedite delivery, leucorrhoea.</p>	<p>Conducted on clearance of cervical human papillomavirus infection by topical application of Aloe vera [81].</p> <p>Topical application on genital infections caused by herpes simplex virus (HSV) [82].</p>
<p><i>Tinospora cordifolia</i></p> 	<p>The stem has alkaloids (berberine, tembereterine), glycosides, steroids, sesquiterpenoids, (tinocordifolin), aliphatic compounds.</p> <p>Root has alkaloids (choline, tinosporin, isocolumbin tetrahydropalmatine, jatrorrhizine), palmitine, miscellaneous compounds (tinosporidine, cordifol, cordifellone, N-trans-feruloyl tyramine as diacetate, giloin, gilonin, tinosporic acid).</p> <p>The whole plant has diterpenoids, lactones, aliphatic compounds. Its ethanolic extract contains alkaloids, carbohydrates, glycosides [83].</p> <p>Leaves are rich in vitamin, calcium, phosphorus [84, 85]. Its methanolic extract has flavonoids, alkaloids (tinosporin), glycosides [86].</p>	<p>Whole plant- Spermatorrhoea</p> <p>Stem-Spermatorrhoea, leucorrhoea, impotency, infertility, urinary tract infection</p>	<p>Not found</p>

NOTE. *Data is collected from PubMed selecting article type: clinical trial, meta-analysis, randomized controlled trial on human species and Google.

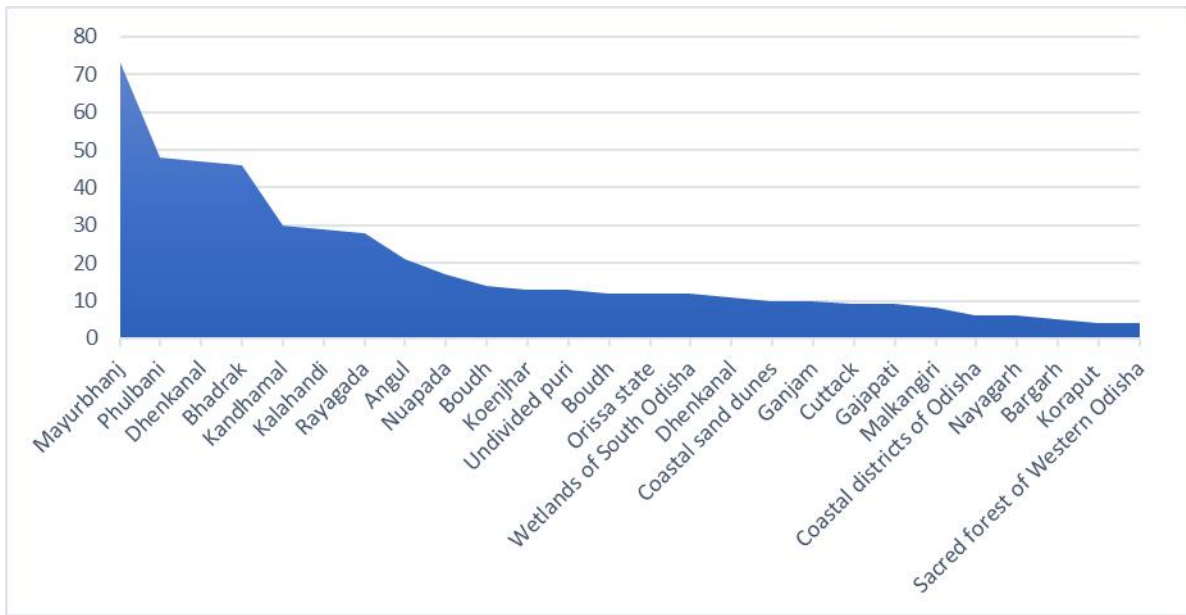


Figure 3 Area wise distribution of the medicinal plant species

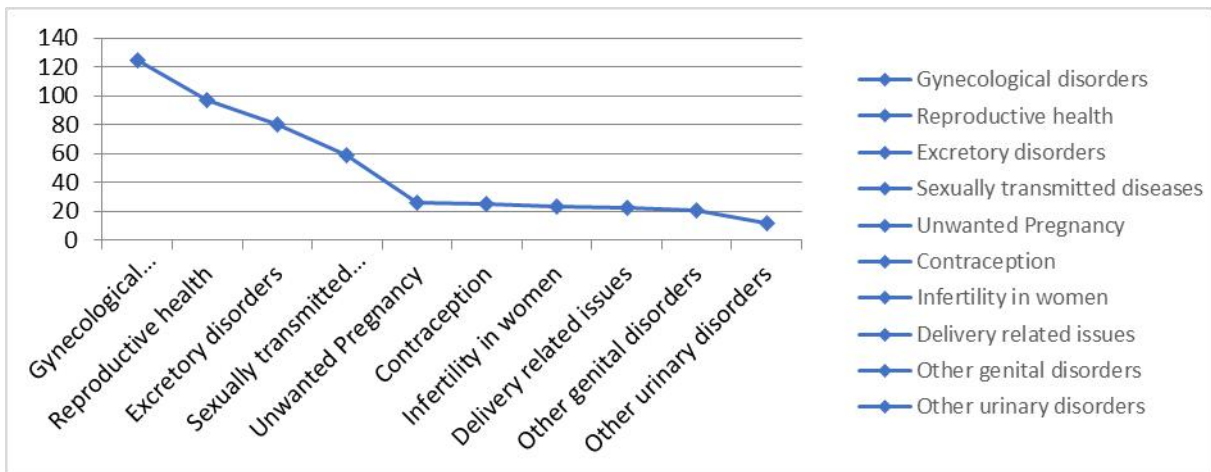


Figure 4 Occurrence of different urogenital disorder catagories in the study area

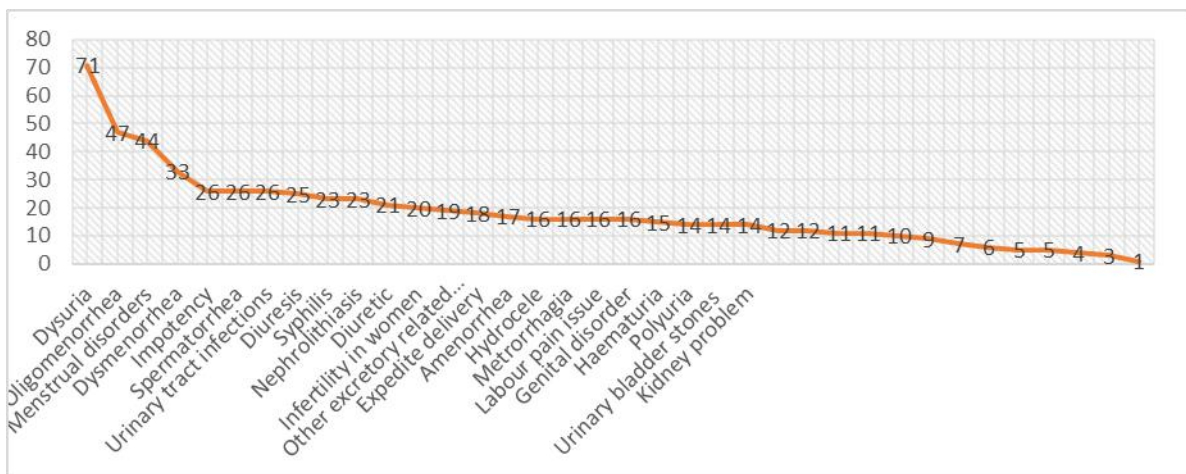


Figure 5 Frequency of reports on various urogenital ailments in the study area

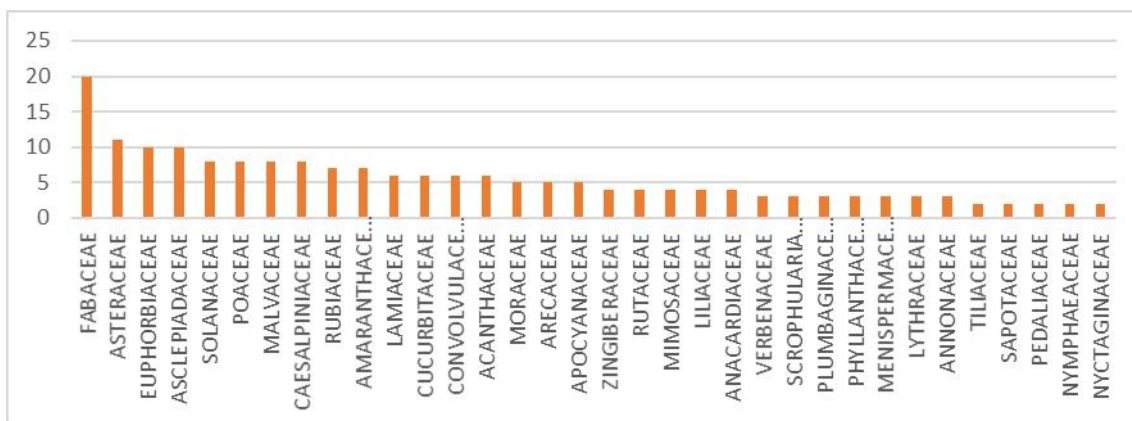


Figure 6 Family wise distribution of the medicinal plant species. Families, which have been referred to more than once in the dataset has been plotted.

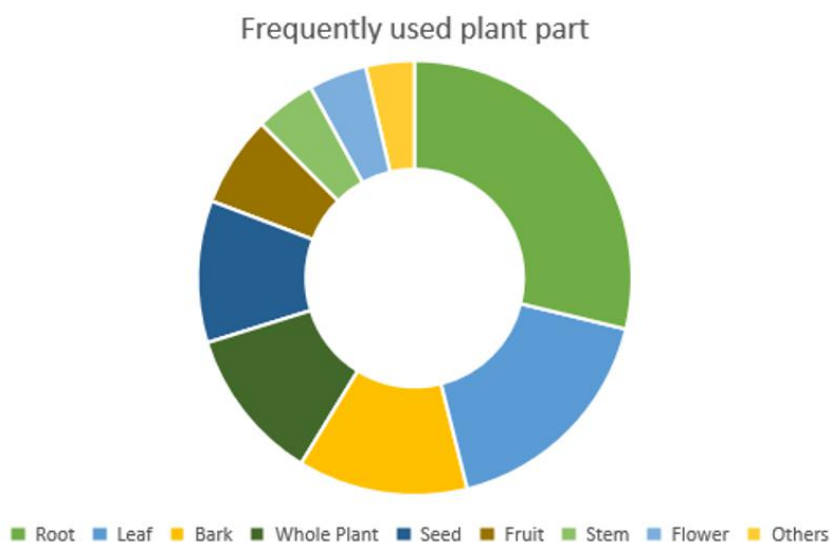


Figure 7 Plant parts frequently used for the treatment of the urogenital disorder

The total number of reports of different types of urogenital issues are presented in Figure 5 and according to this dysuria, various authors frequently report dysuria, oligomenorrhoea, menstrual disorders, and dysmenorrhoea are frequently reported by various authors, probably these are the common problems reported in females.

Family wise therapeutic usage of plants

An overall view of families frequently reported to have abundant species of beneficial ethnomedicinal plants for urogenital disorders is presented in Figure 6. It is inferred from the graph that Fabaceae followed by Asteraceae, Euphorbiaceae and Asclepiadeaceae are rich in medicinal species, which are potent to cure urogenital disorders.

Plant parts for frequent therapeutic use

The various plant parts that are frequently used in dried, powder, paste, or decoction form are taken into account and approximate frequencies are plotted to infer a comparative idea about the important plant parts, rich in medically important secondary metabolites, which is presented in Figure 7. According to the graph the roots followed by the leaves, bark, and whole plant have maximum therapeutic uses.

Discussion

In this present review, around 264 medicinal species belonging to 85 families are enlisted. In some of the referred journals, the mode of administration of dosage is missing or not mentioned (*specified as d.n.s*), parts used in the therapy are missing (*specified as n.s*). In

some reports, more than one common local name is assigned to the same species in different localities, which might bring some confusion. However, the reports of the authors have been retained to work on the identified plant species for their medicinal properties. From Table 2, it can be inferred that *Abrus precatorius* L. (Fabaceae), *Asparagus racemosus* Willde (Liliaceae), *Curculigo orchioides* Gaertn. (Hypoxidaceae), *Cynodon dactylon* (L.) Pers. (Poaceae), *Saraca asoca* (Roxb.) de Willde (Caesalpiniaceae) are widely recorded for their medicinal properties. From table 1, it can be inferred that *Abelmoschus ficulneus* (L.) Wt. & Arn. ex Wt., *Abutilon hirsutum* (Vell.) K. Schum., *Acacia catechu* (L.f.) Willd., *Acorus calamus* L., *Adiantum lunulatum* L., *Aeschynomene aspera* L., *Agave sisalana* Perrine, *Bauhinia variegata* L., *Bryonopsis laciniosa* Auct. Non(L.) and so on are the least known medicinal plants in study areas of Odisha.

We can also conclude that from the listed plants species *Oroxylum indicum* (L.) Vent (Bignoniaceae), *Syzygium cumini* (L.) Skeels (Myrtaceae), *Tribulus terrestris* Linn. (Zygophyllaceae), *Ampelocissus latifolia* Planch (Vitaceae), *Borassus flabellifer* L. (Palmae), *Curculigo orchioides* Gaertn (Hypoxidaceae) have been least researched and could be a possible specimen for future research and extensive phytochemical screening and their respective antimicrobial and biochemical study.

Conclusion

From the above discussion, we can conclude that many medicinal species have been widely accepted as a means of traditional healing, and the details of usage is passed to the general public as a cost-effective solution for uncomplicated as well as complicated urogenital disorders. From the identified medicinal species, some have been abundantly used and the possible therapeutic benefits are quite high and on the other side, there are some recorded lesser-known species with less research work been carried out. These sparsely used plant species can be further explored by researchers for making more potential drugs for the treatment of urogenital disorders.

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