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Review Article

A review on traditional medicinal plants used to treat gynaecological disorder in Bangladesh

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ABSTRACT: Medicinal plant resources of forest origin are extensively used for gynecological disorder in many parts of Bangladesh and India mostly in rural areas. Traditionally, rural women prefer Ayurvedic medicines rather than modern medicines for abortion, menstrual irregularity, conception disorders, sterility, delivery problem and many such gynecological disorders, because modern medicinal facilities are scanty which made it inaccessible to many rural people. Moreover herbal medicines are cheap, easily accessible, have lesser or no side effects with higher efficasy. But these valuable knowledges have not been properly documentated. For this, traditional knowledge is vanishing gradually as a result of mordernisation. So, appropiate and accurate documentation of such traditional and precious Ayurvedic knowledge can be an excellent contribution to medicinal field. The present study is aimed to compile different and scattered knowledge about the therapeutic uses of plants for gynecological disorders. The paper attempts to represent such scattered valuable data to create awareness among the Ayurvetic practitioners, product users and scientific community so that some conservative efforts for sustainable use can be initiated. The present paper evaluates about 251 plant species belonging to 94 families, with their mostly used parts and their mode of application. This information can also be helpful to lead further researches at the clinical and pharmacological level.

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INTRODUCTION

Plants have been a valuable source of natural products for a long period of time to maintain human health, especially with more intensive studies in the last decade for natural therapies. Globaly 85% of the traditional medicines used for primary healthcare derived from plants [1]. Traditional remedies are part of the cultural and religious life of many rural people specially the ethnic community. In this regard, a biological relationship is framed out and traditional uses of plants

as medicine are in practice. Such knowledge, mostly oral, is passed on to generations and thus appears to be dissipating due to the gradual changes in the life style of these communities^[2]. With the advent of human civilization, many systems of therapy (Ayurveda, Siddha, Unani etc) have been developed primarily based on plants. For being costly and having side effects, patients are seeking the alternatives of allopathic medicines which are less expensive with



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lower or no side effect. Besides in rural areas many women hesitate to approach doctors for their gynecological disorders due to lack of awareness. The traditional healers have an admirable knowledge of medicinal plants around them [3] and women of this region generally have a good deal of faith on local plants used for these problems. Also local herbal practitioners or healers are practicing the use of medicinal plants for the common people in a very low expense. Thereby a wide range of herbal traditional medicines are used to regulate the menstrual cycle, enhance fertility, prevent leucorrhoea and as either abortifacients or anti abortifacients although their knowledge of dosages are not always scientific [4].

In the present study, attempts are being made to document such folk practices commonly used for various problems related with female genital system and other related matters.

Potential use of Bangladeshi traditional Medicinal plants in Gyneocological disorders

We reviewed the literature working with traditional plant used for dysmenorrhea, gonorrhoeae, leucorrhoea, regulating or inducing menstruation, uterine cleansing, uterine fibroids, banishing the placenta and lochia and for easing child birth. The published data about traditional medicinal plants has been collected through various sources and documented in a table. The documentation reveals local name of species, part of plant used by traditional users and the mode of application which includes dosage and method of prepation if any. Identifications of the species done by their scientific names and arranged in table according to English alphabetic order.

The present paper deals with 251 plant species of 94 families. From the documented information, detailed gynecological disorders are identified such as preventing Abortion, Infertility, Contraceptive,

Bleeding without miscarriage, Leucorrhoea, Gonorrhoea, Amenorrhoea, difficult child birth, menstrual complaints, etc. The study has revealed various plant parts used for formulations and it has been observed that root has been used mostly. 17 numbers of gynecological disorders have been reported on this document and among these, leucorrhoea is found to be the most prevealant disorder. The mode of preparation and administration is very easy and suitable. The methods of preparation of herbal medicine fall into four categories, like plant parts applied as paste, juice extracted from various plants parts, decoction of plant parts mixed with water and other liquids; and powder made from different plant parts. It has been found that single plant part is used in many cases but in many conditions, polyherbal preparations are also used and there is more than one method of preparation. Some species cure single disorder but majority cures related different diseases. Usually medicines are taken orally directly or mixed with water, milk, honey, black pepper etc. Doses are measured generally in teaspoonful or in mililiter, which varies from patient to patient depending on their age, physical health conditions and several other factors.

CONCLUSION

The use of traditional medicine for Gynecological disorders is widespread from the ancient time as higher percentage of the population relying on it. This is because of unavailablity of modern medical facilities in rural areas and the expensive medicare system, which these rural or tribal people are unable to afford. Hence, the present study emphasizes a detailed documented data of medicinal plants, which in future may be used as a treasure for various active phytochemical and pharmacological screening to formulate potent drugs.

Table 1. Medicinal plants used for the treatment of gynecological disorder

Family	Scientific name	Local	Used parts	Mode of application
		Name		
Acanthaceae	Hydrophilla	Kulikhara	Root	Root powder for easy
				delivery [10]
	Justicia adhatoda	Basak	Whole plant	To prevent gonorrhea [9].
				Leaves boiled with water
				and sugar candy, mixture is
				given for better lactation [23].
				Root bark juice is taken with
				honey to treat leucorrhoea [27, 7].
Acoraceae	Acorus calamus	Bach	Fresh Milk.	For delivery problem [18]
Amaranthaceae	Achyranthes	Chirchira	Root, leaf	To induce abortion, 2-3 ml
	aspera	Apang		fresh root extractgiven orally
				twice a day as cure for
				postabortion abdominal



				pain. Inflorescence paste used externally [27,5,8,8,12,22]
	Achyranthes aspera	Chaff- flower,	Root,stem	For relief in painful delivery Fresh and Dried root is grinded and decoction is made with water and given to a pregnant women [27,10,18,21].
	Achyranthusaspera	chaff- flower	Whole plant	To prevent gonorrhea [9]
	Amaranthus lividus	Noteysak	Root	Roots act as reduce menstrual flow and useful in leucorrhoea [12]
	Achyranthes aspera	Ola Kanta	Root	Root powder is taken with cow milk to relieve menstrual disorder ^[27] .
Anacardiaceae	Semecarpus anacardium	Bhela	Root bark	The fresh root bark of about 20g is made into a paste. Two small pills are prepared from this paste and are kept inside overnight to induce abortion [22].
	Spondiaspinnata Kurtz.	Amra	Wood	Wood powder is used in gonorrhea [7].
	Semecarpusanacard ium	Ballataka' or 'Bhilwa	Seed and gum from bark	Seed dust [2 gm] mixed with honey and cow milk applied to treat syphilis and gum from bark to cure gonorrhoea [7].
	Semecarpusanacard iuf.	Ballataka' or 'Bhilwa	Seed	Seed dust [2 gm] mixed with honey and cow milk applied to treat menorrhagia
	MangiferaindicaL.	Mango,Aa m	Leaves ,unripe mango	Decoction of stem bark along with black Pepper is given to women continuously for 21 days in empty stomach to stop bleeding from uterus. Seed powder is also beneficial in menorrhagia [7,25]
Annonaceae	Polyalthia longifolia	Ashok	Root bark	Root bark powder is given in menstrual disorder [27]
Apiaceae	Daucus carota	Gajor	Seed	For abortion and to increase menses paste of seeds is applied to vagina [12].
	Cumminum cyminum	Cumin	Fruit	The fruit are acrid used to cure Gonorrhoea [10]
	Cumminum cyminum	Cumin	Fruit	The fruit are acrid used as to Leucorrhoea [10]
	Trachyspermum ammi	Ajwain	Seeds	Herb is used to control menstrual discharge. Seeds in powder form mixed with sugar and butter are taken orally for 3 days once daily to normalize menstrual discharges. This recipe is



				also used to clear uterus and regulate menstrual cycle after birth [8]
Apocynaceae	Rauvolfia serpentina	Sarapgandh a	Root	Decotion of roots is used during labour pain to increase uterine contraction [16,18,21].
	Alstonia scholaris	Chatim/ Chatan	Stem bark	Stem bark paste applied on breast for better lactation [23].
	Catharanthusroseus	Sadaphulno yontara	Leaf	Leaf juice [5 ml] mixed with honey is given in the early morning for continuous 7 days once a day to treat leucorrhoea [7].
Areaceae	Cocos nucifera	Nariyal	Fruit and Fibre	To treat abortion [29].
	Colocasia esculanta	Kalakachu	Shoot	Shoot of the plant is used for adequate milk production immediately after the delivery [20].
	Lasia spinosa	Chengamor a	Roots	Rhizome is boiled and taken for the treatment of irregular menstruation [26]
Aristolochiacea	Aristolochia India	Iswarmul	Root	To cure menstrual disorders and facilitate abortion root powder [2 gm] mixed with water applied in empty stomach for 21 days [5,22].
Asclepiadaceae	Tylophora indica	Antamul	Leaf	Leaf decoction is given to cure "Meho" [gonorrhoea]
	Cryptolepis buchanani	Dudhi,	Root, Whole, plant	Treatment for lactation [19].
Asteraceae	Blepharispermum subsessile	Rasna	Root	For delivery problem [18]
	Elephantopus scaber	Minjur chundi	Roots	One glass full of decoction of root is given in labour pain [18].
	Enydrafluctuans	Helencha	Leaf	The leave juice taken in empty stomach for 15 days to cure gonorrhea [7]
	Vernoniacinerea	Dumur	Whole plant	The Juice of the plant [two teaspoonfuls] is given for 15 days to cure leucorrhea ^[7]
	Wedeliachinensis	Kesraj	Whole plant	5 ml decoction mixed with water given to women for continuous 21 days in empty stomach to treat menorrhagia [7].
Berberidaceae	Berberis lycium	Barberry	Roots	To treat gonorrhea [9]
Bignoniaceae	Oroxylum indicum	Phonphana, Phampan	Stem bark	Decoction of stem bark [2ml] with common salt [1gm] is prescribed twice a day for one month against menorrhagia of women [6,7]
Bombacaceae	Bombax ceiba	Gochu	Fresh seeds	Acts as Abortifacient .Tablets are prepared from ½



				tea spoon paste and taken twice a day for 5 days [11].
	Bombax ceiba	Red	Stem ,bark	Also treat leucorroea [29] To increaselabour and for smooth delivery.Stem bark powder is given with water
	Bombax ceiba	Shimul	Root	Fresh root [1-2 years old plant] is used in "Meho" [gonorrhoea] and physical weakness [23].
	Salmalia malabaricum	Semhar,se mul	Root	Powder of dried root is taken orally with water or with meals [18,28]
Brassicaceae	Raphanus sativus	Mula	Seed	To increase menses to purify womb and for abortion seeds are given orally [12]
	Raphanus sativus	Mooli	Roots, Fleshy part.	Root decotion is good for the treatment of Leucorrhorea. Fleshy part is eaten raw and its juice is recommended good for treatment of menstrual disorders [16].
Burseraceae	Commiphora wightii	Gugal	Latex	To treat leucorroea [7,29]
Cactaceae	Opuntia dillenii	cassie,	Fruit	Baked fruit juice is taken with honey to treat gonorrhea [27].
	Opuntia dillenii	Jumbie prickle	Baked fruit juice	Baked fruit juice is taken with honey to treat gonorrhea [7]
Caesalpiniaceae	Caesalpinia pulcherrima	Radhachur a	Seed	Acts as abortifacient. Dose same as Polash [11,22]
	Saracaasoca[Roxb.]	Asok	Flower buds ,seed	To spontaneous abortion Flower buds [5-7 in number] are chewed by the pregnant women in the early period of pregnancy [7,11].
	Bauhinia variegate	Orchid yellow	Bud	Bud about 4-5 buds grinded and give with water twice a day to women for enhancing lactation of feeding mother [10].
	Bauhinia malabarica	Phutki, Kanchan, Karmai	Bark	The stem bark and root bark decoction used with the paste of black peppers [3:1] for the treatment of Leucorrhoea [7].
	Cassia fistula	Amaltas	Stem,Bark	Powder of stem bark mixed with black pepper is given for 7 days to treat menstrual disorder [24]
	Saraca asoca	Asok	Stem bark	Stem bark decoction is taken to relieve menstrual disorder and haemorrhoids of uterus [10,12,18].



Caesapiniaceae	Tamarindus indica	Tingtoi ,Thenthoi	Fruit	One cup hot water extract of fruit is taken for a single day to induces abortion [11].
Caricaceae	Carica papaya	Papaya,pep e	Fruit	To treat abortion juice of unripe and ripe fruit is used [10, 12, 22].
	Carica papaya	Papaya	Fruit	Raw fruit as vegetables are used to improve lactation in feeding mother [10].
	Carica papaya	Papita	Latex	To treat leucorroea [29,7]
Combretaceae	Terminalia arjuna	Arjun	Fruit	Tablets are prepared from fresh fruit paste. One tablet contains 5gmixture. Tablets are the dried for 1 day. 2 tabs twice a day in empty stomach for 7 days to induce abortion [11].
	Terminelia arjuna	<i>Arjan</i> , arjuna	Stem bark	Stem bark powder is taken with water to cure leucorrhoea [12,24]
Convolvulaceae	Cuscuta reflexa	Swarnalata	Whole plant	Whole plant decoction intake in empty stomach to cure "Meho" [gonorrhoea]
	Ipomoea mauritiana	Vhui- kumro	Root	Treatment for lactation [30]
	Convolvulus microphyllus	Bindweed	Whole plant	Whole plant paste with equal amount of <i>misri</i> and milk is taken in leucorrhoea [27]
Costaceae	Costus speciosus	Spiral Ginger	Leaves, roots	Powder of root is prepared and one spoon of root powder is taken orally with cold water. Twice daily for 2-10 days to cure gonorrhea
Cucurbitaceae	Momordica charantia	Kangla	Seed	It can cause abortion of 4 months pregnancy. Fresh seed paste decoction is prepared and 2 tea spoon fresh decoctions is taken once a day for 3 days in empty stomach [11,22].
	Melothria heterophylla	Bankakdi, Krokadi	Root	Paste of roots with turmeric powder cures antifertility and labour pain [16].
	Lagenaria siceraria	Lau	Fruit	Fresh fruit is taken with cow's milk twice daily to cure leucorrhoea [12]
Cyperaceae	Scirpus grossus	Keshur	Leaf	Treatment for lactation [30]
Dilleniaceae	Dillenia pentagyna	Rai,	Stem bark	For easy delivery purpose tree gum is used [6].
Equisetaceae	Equisetum ramosissimum	drilgras	Whole plant	To prevent gonorrhea [9]
Euphorbiaceae	Emblicaofficinalis	gooseberry or amla,	Fruit, seed	Fruit and seed dust [5 gm] mixed with honey administered for 7-10 days



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	Flueggea virosa	Common Bushweed	Leaves	in empty stomach early in the morning to cure gonorrhoea [7]. Fruit pulp mixed with <i>Tribulus</i> fruit powder is taken with honey for treatment of leucorrhoeae [16,24]. The leaves are boiled and the decoction administered
				orally or applied topically to treat gonorrhea [15].
	Ricinus communis	Reri / Varenda	leaves	The leaves are warmed with coconut oil and applied to breast for improve lactation [23].
	Euphorbia hirta	Dudhi	Leaf.	One cup of decoction is prepared with milk and consumed in morning and evening for 2-4 days for treatment of leucorrhoea e [18].
	Ricinuscommunis	Arand, Castor Beans	Leaves, Seeds	To treat Leucorrhoea ^[9]
	Phyllanthus niruri	Bhui amla	Root	Root paste is taken with filtrate of boiled rice to regulate menstruation [27,24]
	Ricinus communis	Arand, Castor	leaves	Ricinus communis L. [Euphorbiaceae], Arand Warm leaves are applied on hypogastria [27,24].
	Ricinus communis	Arandi	Leaves ,Seeds	Warm leaves are applied for Menstrual disorder [29,10,24]
	Ricinus communis	Castor-oil- plant	Seed	Seed oil is given to relieve constipation duringpregnancy [27,16].
Fabaceae	Abrus precatorius	Ratti	Root	To treat abortion roots powder is used [16,22]
	Acacia catechu	Karingali	Bark	Acts as Abortifacient .3-5 ml of bark juice is taken orally for the first three months [22].
	Butea monosperma	Polash	Dried Seed	Acts as Abortifacient.[11]. Dried seed paste of Solanum xanthocarpum Schrad, fresh Coccinia grandis [L.] Voigt stem, dried seed of Vitex negundo L., Caesalpinia pulcherrima [L.] Sw., Holarrhena antidysenterica [L.] Wall. Rubia cordifolia L., fresh seed of Ricinus communis L., fresh seed of Saraca asoca [Roxb.] W. J. De Wilde dried fruit of Sapindus mukorossi Gaertn. are prepared separately and mixed in equal ratio. Tablets are then prepared from this



				mixture, one tablet contain ½ spoon of the mixture. 1 tab daily after dinner for 7 days [11]. Used for heavy bleeding after delivery [29]. Also treat Gonorrhoea [9]
	Uraria lagopodioides	Chakulia	Plant	Whole plant paste of about 30 g is made into a candle which is kept inside to induce abortion [22].
	Abrus precatorius	Kuch	Seed	For relieves delivery pain paste of seeds is applied into vagina [12]
	Dalbergiasissoo Roxb	Sisso/ Shawa	Whole plant	To prevent gonorrhea [9]
	Dolichos kilimandscharicus	Wild Lupin	leaves	The leaves boiled together withother plants used for gonorrhoea [15]
	Abarus precatorius	Fabaceaei	root	They are used as contraceptives, root paste is used to cure gonorrhea
	Cajanus cajan	Cajanus indicus sprung		Leaves and seed when applied as a poultice over the breast may induce lactation [10].
	Abrus precatorius	Chirmi, Gunja	Whole plant	To treat leucorroea [4,17]
	Mucunapruriens	velvet bean, banana	Seed	A pill prepared from powdered seeds boiled with cow milk mixed with Kamraj [Buettneriaherbacea] root dust, sugar and honey is given to cure leucorrhoea [7].
	Mucunapruriens	velvet bean, banana stock pea	Seed	A pill prepared from powdered seeds boiled with cow milk mixed with Kamraj [Buettneriaherbacea] root dust, sugar and honey is given to cure menorrhagia [7].
	Trigonella foenum- graceum	Methi	Seed	Powdered dried seeds taken orally with warm water for abdominal pain during menstrual flow [16].
Fagaceae	Quercus dilatata	Toor banj	Fruit	The fruits in the powdered form are used to treat Gonorrhea [8].
Flacourtiaceae	Quercus floribunda Flacourtia indica	Hawthorn Bainchi / Paniala	Fruit Stem bark	To treat gonorrhea [9]. Stem bark mixed with stem bark of "Shimul" and boiled in water is given twice aday to cure "Meho" [gonorrhoea. Stem bark mixed with stem bark of "Shimul" [Bombax ceiba] and boiled in water is



				given twice a day to cure Leucorhea [23]
Gramineae	Zea mays	Sweet	ripe grains	Half ripe grains are prescribed to increase lactation [27].
Hypoxidacea	Curculigo orchioides Gaertn	Nilappanae	Tuber	Acts as Abortifacient .Past of the tuber is given orally in empty stomach [22].
Labiatae	Ocimum sanctum	Tulsi	Leaf	Leaf juice is taken with <i>gur</i> and cow milk to relieve pain after delivery [27].
Lamiaceae	Vitex negundo	Nisinda [B]	Seed	To induces abortion [11].
	Ocimumgratissimum	Ram Tulsi	Whole plant	The extracts of whole plants are used to cure gonorrhea [7].
Lauraceae	Cinamomum tamla	Tejpat	leaf	Leaf extract is used for post delivery problem as spice [20]
Leguminosae	Mimosa hamata	Amado, Chiyal	Flower, Root	To treat Leucorrhoea [29]
Liliaceae	Aloe barbadensis	Ghritakum ari	Fleshy leaf	Fresh leaves are dried for 1-2 days. It is then powdered and mixed with water ,2 tea spoons, twice daily in empty stomach for 3 days. This acts as Abortifacient [5,11].
	Asparagus racemosus	Wild asparagus	Root	To prevent abortion roots are used [10]. Root decoction is given to the women suffering from leucorrhoea [29,5,7,10,24].
	Gloriosa superb Linn	Ulat chandal	Roots	Acts as Abortifacient .Fresh roots of about 20g are made into a paste along with 7 black pepper seeds. The paste is mixed with glass of Luke warm goat milk at the bed time [22]
	Alium sativum	Naharu	Leaf	Leaf of the plant used in post delivery problem as vegetables, commercially cultivated and widely used [20].
	Aloe vera	Barbados aloe	Leaf	Leaf pulp and turmeric paste is applied on breasts to cure swelling during early lactation [27].
	Asparagus racemosus	Asparagus	Root	Dried root powder is taken with honey or milk to treat lactation problems [2, 4].
Lygodiaceae	Lygodium flexuosum	Dheki-shak	Leaf	Used during increased menstrual flow [30].
Lythraceae	Woordfordia fruticosa	Dhawai	Flower,coroll a	Half spoon of Powder of dried flower is mixed with Honey and taken orally to regulate menstrual disorder [,8,18,21].



	Lawsonia inermis	Cinamo	Root bark	Root bark decoction is given for leucorrhoea [1,24]
	Woodfordia fruticosa	Dhai,Dhata ki	Dried flowers	Dried flower powder[5gm] with honey[1ml] is given to women once a day continuously one month for the treatment of leucorrhoea [[]
Magnoliaceae	Micheliachampaca	Champaca,	Flower, fruit	Flower and fruits is believed to cure gonorrhea [7].
Malvaceae	Gossypium Harbacium.	Levant cotton	Root bark	Root bark decoction is used for abortion [4].
	Hibiscus rosa- sinensis	Nipui par , Joba	Stem, bark, Flower	Acts as Abortifacient Paste of 5 flowers is prepared and mixed with one tea spoon honey. 2 tea spoonful of this paste is taken every day in empty stomach for 3 days [11,22]. White flower of the plant atleast 5 in number taken in the morning in empty stomach for about two-three months to cure white discharge [25].
	SidaacutaBurm	weed	Seed	Seed dust [1 tea spoonful] mixed with water is given 7-10 days continuously to treat gonorrhea [7].
	Sida cordifolia	Swet Berala	Root	Root decoction is given in empty stomach to cure "Meho" [gonorrhoea] [23].
	Thespesia Populnea	Ganga ravi		Bark oil and capsule is useful in urethritis and gonorrhea [10].
	Gossypium harbaceum	Bari	Root	Root decoction is given in amenorrhea and dysmenorrhea [8].
	Abutilon indicum	Coi xay,	Root	Root powder is taken for the treatment of leucorrhoea [27].
	Sida cordifolia	Country mallow	Seed	Seed decoction is given for gonorrhea [27]
Meliaceae	Azadirachta indica	Neem	Stem bark Seed	Acts as Abortifacient.]. Tablets from stem bark pastes are prepared; one tablet contains ½ tea spoon paste. 1 tablets every day in empty stomach for 10 days [11]. Also cure white discharge [25]
	Meliaazadirachta	Chinaber	Bark,Fruit	To prevent gonorrhea [9].
Menispermaceae	Cocculus hirsutus	Jaljamani /Faritboti	Leaf	Fresh leaf juice mixed with pinch of sugar is given to cure "Meho" [gonorrhoea]
	Tinospora cordifolia	Gulancha	Whole plant	Beneficial in the treatment of gonorrhea [10].
Mimosaceae	Mimosa pudica	Rajuriher	Whole plant	Acts as abortifacient .Fresh root paste is prepared and



	Albizialebbek	siris	Bark and seeds	then mixed with root paste of Mimosa pudica L. in equal ratio. Tablets are prepared from the paste mixture. One tablet contains ½ tea spoon paste. 1 tablet daily at empty stomach after completion of menstrual cycle [11]. To prevent gonorrhea [9]
	Acacia nilotica	Babla	Stem Bark	Stem bark decoction used to treat cough, diarrhoea, dysentery, indigestion, acidity,gonorrhoea and diabetes [23].
	Acacia arabica	Babul	Leaves,	Powder of unripe fruit, flowers, and leaves mixed in equal quantity with sugar and water is taken to relieve from leucorrhoea [1,24].
	Mimosa pudica	Lajjabati	Root	Root decoction also used for leucorrhea ^[18]
	Acacia farnesiana	Guyebabla	Bark,gum	Barked soaked in water and applied 7-10 days continuously to cure leucorrhoea and menorrhagia [5,9].
Moraceae	Streblus asper	Sheora	Fresh Stem	4 inch long fresh stem used for intravaginal insertion for 20 mins to induces abortion
	Ficus glomerata	cluster fig	Fruit	Fruit powder is taken with <i>mishri</i> to treat gonorrhea ^[27] .
Moringaceae	Moringa pterygosper	Drunstick tree.	Root	For abortion powdered root and extract of root is kept in vagina [10].
Myrtaceae	Syzyium cumin	Black plum	Bark	One teaspoon of dried powder of bark with cow milk twice a day for a week to cure leucorrhoea ^[10] .
Nyctaginaceae	Boehaavia diffusa	Punarnava	Whole plant	Take extract from the roots of <i>Boehaavia diffusa</i> [Punarnava] and mix a little bit of oil of Til. Application of this preparation in the vagina ensures smooth delivery [20].
	Boerhaavia repens	Punarnava	Whole plant	Whole plant extract is useful in women leucorrhoea [12]
	Boerhavia diffusa	Puruni saga	Whole plant	Decoction of plant [15ml] is given once a day in the early morning for fifteen days for the treatment of Leucorrhoea [6,7,24]
Nymphaeceae	Nelumbonucifera	Lotus, Kamal	Rhizome.	About 15 ml decoction of rhizomes of white flowered



		1		
				plant is taken by women in empty stomach for fifteen days to cure leucorrhea [7].
	Nymphaea rubra	Lal saluk	Flower	Dried flowers powder mixed with water is given to cure piles. Dried flowers mixed with roots of <i>Eleusine indica</i> and pinch of sugar is given in empty stomach to cure leucorrhea ^[23] .
Papilionaceae	Glycorrhyza glabra	Jastamadhu	Bark	Used for post delivery problems [20]
Pedaliaceae	Sesamum indicum	Sesame	Seed	Half grounded seeds mixed with ghee and sugar are taken with hot milk used for abortion [27].
	Sesamum orientale	Til	Seed	Oil extracted from seeds is used as a massage during post-delivery pain [16].
	Pedalium murex	Mota Gokhru	Leaves, Fruits	To prevent gonorrhea [7].
	Pedalium murex	Bara Gokhru	Fruit	Fruit powder mixed with <i>Khand</i> [powdered sugar] and <i>Ghee</i> is taken to cure leucorrhea ^[27] .
	Sesamum indicum	Til	seeds	Mixture of half grounded seeds, <i>Gur</i> and <i>Ghee</i> is taken with milk to relieve amenorrhea [24].
Peperaceae	Piper beetal	Betal	Leaf	Leaf tea gives relief from perspiration and menstrual odor [10]
Piperaceae	Piper longum	Pipul	Whole plant	Whole plant cooked as vegetable is given after child birth for better lactation [²³]
Plumbaginaceae	Plumbago zeylanica	Chitrak	Root	Intake of 10 gms of roots of Plumbago zeylanica [Chitrak] with honey ensures quick delivery [20].
Poaceae	Arundodonax	bamboo	Leaves, Fruit	To prevent gonorrhea [9]
	Eleusine indica	Kan Chulkani	Root	Fresh root decoction mixed with sugar is given at morning in empty stomach to cure "Meho" [gonorrhoea] [23]
	Cynodon dactylon	Durba	Whole plant	Paste made from whole plant used as leucorrhoea [12,23]
Polygonaceae	Polygonumdichotom um	Pitorea	Whole plant	To prevent gonorrhea [9]
Punicaceae	Punica granatum	Pomegrana te	Flower	Fresh flowers with sugar twice a day with water for 2-3 days to cure leucorrhoea ^[10]
Rhamnaceae	Zizyphus mauritiana	Kalojam	Seed	Pastes of seeds are used to treat leucorrhoea [12]
Rubiaceae	Rubia cordifolia	Manjistha [B]	Seed	As Abortifacient dried seed paste of Solanum



				xanthocarpum Schrad, fresh Coccinia grandis [L.], dried seed of Vitex negundo L., Caesalpinia pulcherrima [L.], Holarrhena antidysenterica [L.] Wall. Rubia cordifolia L., fresh seed of Ricinus communis L., fresh seed of Saraca asoca [Roxb.] W. J.De Wilde dried fruit of Sapindus mukorossi Gaertn. are prepared separately and mixed in equal ratio. Tablets are then prepared from this mixture, one tablet contain ½ spoon of the mixture. 1 tab daily after dinner for 7 days [11].
	Ixoracoccinea	geranium,e ldbollswe	Whole part	Root bark and flowers crashed with honey and used once in a week to treat gonorrhea [7].
Rutaceae	Murrya koengil	Narahingha	Leaf	Leaf is used to relief body pain immediately after the delivery [20].
Sapindaceae	Sapindus mukorossi	Ritha	Seed	Act as Abortifacient, Dose same as Solanaceae [11].
Scrophulariaceae	Bacopa monnieri	waterhys	Whole plant	Plant extract is taken to treat gonorrhea [7]
	Scopariadulcis.	Broomwee d,.	Whole plant	Extract of fresh plant use daily in the morning for gonorrhea [7].
Solanaceae	Datura metel	Dutra [B]	Fresh root	Acts as Abortifacient .Fresh root paste decoction of is prepared and 2 teaspoon decoction is taken once a day for 5 days in empty stomach [11].
	Solanum xanthocarpum Schrad.	Bhoy ringani	Root	Lodhas give root passed with the passed of Curcuma longer [3:1] for the treatment of spontaneous abortion [7].
	Solanum xanthocarpum Schrad	Kantikari	Seed	Used as Abortifacient [11]
	Datura metal	Dhutra,	Whole plant	To prevent gonorrhea [9] To treat Gonorrhoea [9].
	Solanumsurratense	Wild egg plant	Whole plant	
	Withaniasomnifera	Winter cherry	Seeds	to treat Leucorrhoea ^[9]
	Lycopersicumescule ntum	Tamatar	Flowers	Dried flowers powder is considered good for the treatment of oligomenorrhoea or irregular period [16].



Sterculiaceae	A huama ayayatıyın	Ulatkambol	Petiole	Vous satisfa out into amolf
Stercunaceae	Abroma augustum	Ulatkallibol	Petiole	Young petiole cut into small
				pieces and kept in a glass of
				water for overnight and
				infusion is used at early
				morning in empty stomach
	7		a	to cure gonorrhea [23].
	Pterospermumacerif	Acacia	Stem bark,	Decoction of stem bark and
	olium	catechu	petiole	petiole mixed with water is
		Willd		given for 7-10 days
				continuously early in the
				morning to cure gonorrhea
				[7].
Tiliaceae	Corchorus	Baphuli,	Leaf	Leaf extract is applied on
	depressus			women genital for treatment
				as gonorrhoea ^{[27].}
Umbelliferaceae	Peucedanum	Tejraj	Root	Equal quantities of various
	nagpurense			herbs like bhojraj, kamraj,
				sounth, Jhatamnsi,
				baibidang, satavar, safed
				musli etc are powdered and
				mixed with tejraj and given
				in irregular menstruation [18].
Verbenaceae	Clerodendrumviscos	Ghetu,	Leaf, root	Two spponful pastes along
	um	Bhat.		with water are administered
				for continuous 10-15 days to
				cure white discharges in
				women [7].
	Lippia nodiflora	Jalapippali	Whole plant	To treat Leucorrhoeae [29]
	Clerodendrum	Agnimanth	Leaf	Root decoction is given in
	phlomidis	a, Jaya		leucorrhoea [27]
Zingiberaceae	Elettaria	Elaichi	Fruit	To prevent abortion.
	cardamomum			1
	Zingiber zerumbet	Jabakusum	Rhizome	Decoction of fresh rhizome
				mixed with roots of
				"Aswagandha" [Withania
				somnifera] is given to cure
				Leucorrhea ^[23]
	Curcuma amada	Ami Haldi		To treat abnormal menstrual
	Commence of the contraction			flow [18]
Zygophyllaceae	Balanites	Hingoda,	Bark	To treat leucorroea [29]
	aegyptiaca	Hingora Hingora	2 4111	

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REFERENCE

- 1. Fransworth NR, in Biochemistry by Wilson EO[National academy press, Washington DC],1988,83
- Dwivedi, S. N., Dwivedi, Sangeeta & Patel, P. C. Medicinal Plants used by the tribals and rural people of Satna district, Madhya Pradesh for the treatment of gastrointestinal disease and disorders", Nat.Pro. Rad., 2006, 5[1]: 60-63.
- 3. Tiwari PV, Misra DN, Chaturvedi C, Medicinal preparation used for obstetrics & gynaecological disorders in medieval India. Nagarjuna, 1982, 25:124.
- Dwivedi, S.N. Ethonobotanical studies and conservation strategies of wild and natural resourses of Rewa district of Madhya Pradesh, J. Econ. Taxon. Bot., 2003, 27[1]: 233-244
- Tripathi Rakesh, Dwivedi S.N. and Dwivedi Sumeet, Ethnomedicinal plants used to treat gynecological disorders by tribal people of Madhya Pradesh, India, IJPLS,2010, 1[3]:160-169



- Kambaska Kumar Behera, Plants Used for Gynecological Disorders by Tribals of Mayurbhanj District, Orissa, India, Ethobotanical Leaflets 2006,10: 129-138.
- Dulal Chandra Das, Nirmalya Kumar Sinha, Monalisa Das, the
 use of medicinal plants for the treatment of gynaecological
 disorders in the eastern parts of india. Indian Journal of
 Obstetrics and Gynaecology, 2015, 2[1]:16-27.
- Sarwat, zabta khan shinwari and nisar ahmad, screening of potential medicinal plants from district sawat specific for controlling women diseases, 2012, 44[4]: 1193-1198.
- Rehman Ullah Khan, Sultan Mehmood, Asim Muhammad, Sakina Mussarat, Saad Ullah Khan and Amina, Medicinal Plants from Flora of Bannu Used Traditionally by North West Pakistan's Women to Cure Gynecological Disorders, American-Eurasian J. Agric. & Environ. Sci, 2015, 15 [4]: 553-559.
- Manisha Shukla , Y. Rashiya Begum and Manoj Mishra , A Case study of medicinal plants used by local women for gynecological disorders in Karaikal [U.T. of Puducherry], Journal of Phytology, 2012, 4[5]:09-12.
- 11. Banani das, anupam das talukdar, manabendra dutta choudhury, a few traditional medicinal plants used as antifertility agents by ethnic people of tripura, india, 2014, 6[3].
- A.H.M. Mahbubur Rahman, Ethno-Gynecological Study of Traditional Medicinal Plants Used by Santals of Joypurhat District, Bangladesh, Biomedicine and Biotechnology, 2014,2[1]: 10-13.
- 13. B. Jyothi, bulusu sitaram, g. Sudarsanam, m. Nagalakashmi devamma, ch.paramageetham and g. Prasada babu, Medicinal plants used in gynaecological disorders in Chittoor district of Andhra Pradesh, International Journal of Plant Sciences, 2010, 5[1]: 350-352.
- 14. Chandrayee Bhattacharyya and Goutam Bhattacharyya ,Therapeutic potential of Giloe, Tinospora cordifolia [Willd.] Hook. f. & Thomson [Menispermaceae]: The Magical Herb of Ayurveda.
- 15. Mainen J Moshi1, Donald F Otieno and Anke Weisheit, Ethnomedicine of the Kagera Region, north western Tanzania. Part 3: plants used in traditional medicine in Kikuku village, Muleba District. Moshi et al. Journal of Ethnobiology and Ethnomedicine, 2012, 8:14.
- 16. Nitesh Kumar1 and Rajaram Choyal, ethnobotanical notes on some plants used for the treatment of leucorrhoea and other gynecological problems in hamirpur district of himachal pradesh, 2012, 2 [4]:126-133.
- 17. Ashraful Islam, Abu Bakkar Siddik, Umme Hanee, Anindita Guha, Fatema Zaman, Umme Mokarroma, Hasnat Zahan, Sharmin Jabber, Sanjida Naurin, Hafiza Kabir, Sharmin Jahan and Mohammed Rahmatulla ,Medicinal plants of a Tonchongya tribal healer in Rangamati district, Bangladesh, J. Chem. Pharm.2015, 7[2]:357-361.
- Anuradha Chakraborty, Satyajeet Singh Kosariya, Moyna Chakravarty, A Review of Ethnomedicinal Practices for

- Gynaecological Disorders among the Various Tribes of Chhattisgarh, 1[2], 55-62.
- 19. Abhijit Dey and Dr. Jitendra Nath De, A Survey of Ethnomedicinal Plants used by the tribals of Ajoydha Hill Region, Purulia District, India, Am. Eurasian J. Sustain. Agric, 2010,4[3], 280-290.
- N. Baruwati, n. Boruah and m. Gogoi, Ethno medicinal plants used in post delivery problem by Tai Ahom people of Upper Brahmputra valley, Assam, 2011, 2 [1&2]:26-28.
- Ankur Shrivastava, Ethnomedicinal plants used for treatment of gynecological disorders tribal of Dindori district of Madhya Pradesh, Int. J. of Pharm. & Life Sci. [IJPLS], 2013,4[12]: 3185-3189.
- J. Rajeswari 1, S. Rani, Medicinal Plants Used As Abortifacients - A Review, nt. J. Pharm. Sci 2014, 24[1]: 129-133
- 23. Chowdhury Tanmay, De Sarker Dilip and Roy Chandra Subhas, Local folk use of plants in Dakshin Dinajpur district of West Bengal, India, 2014, 3[5]: 67-79.
- 24. Richa singh , Deepak kumar, Srivasta and punom, study of some ethnomedicinal plants used to cure some gynaeco-Logical disorders from an para-renukoot region of sonebhadra district, Indian J.L.Sci., 2014, 4 [1]: 85-87.
- 25. Shamim ahmed azad , plants used against gynaecological diseases by the gujjar,bakerwaland pahari tribes of district rajouri [J&K] Indian J.Sci.Res.,2013, 4[1]: 135-136.
- 26. Bhenila Bailung, Munmi Puzari, Traditional use of plants by the Ahoms in human health management in upper Assam, India, Journal of Medicinal Plants Studies, 2016,4[2]:48-
- J P Yadav1, Suresh Kumar & Priyanka Siwach ,Folk medicine used in gynecological and other related problems by rural population of Haryana,2006, 5[3]:323-326.
- 28. Rajesh Shukla, Moyna Chakravarty and M. P. Gautam, Indigenous medicine used for treatment of gynecological disorders by tribal of chhattisgarh, India, Journal of Medicinal Plants Research, 2008, 2[12]: 356-360.
- 29. Urvi Gupta and Hitesh Solanki, Herbal Folk Remedies used in Treatment of Gynecological Disorders by Tribals of Simalwara Region, Dungarpur, Rajasthan, Int. J. Pure Appl. Sci. Technol.,2013, 17[1]: 100-107
- 30. Mohammed Rahmatullah, Md. Ariful Haque Mollik, Md. Koushikul Islam, Md. Rofiqul Islam, Farhana Israt Jahan, Zubaida Khatun, Syeda Seraj, Majeedul H. Chowdhury, Farhana Islam, Z.U.M. Emdadullah Miajee, Rownak Jahan, A Survey of Medicinal and Functional Food Plants Used by the Folk Medicinal Practitioners of Three Villages in Sreepur Upazilla, Magura District, Bangladesh, American-Eurasian Journal of Sustainable Agriculture, 2010, 4[3]:363-373.
- 31. Pattanayak S, Dutta MK, Debnath PK, Bandyopadhyay SK, Saha B & Maity D, A study on ethno-medicinal use of some commonly available plants for wound healing and related activities in three southern districts of West Bengal, India, Explor Anim Med Res,2012, 2[2]: 97-110.

