

# Medicinal Plants Used for Sexual Debility and Birth Control in Mandal Tehsil, Bhilwara, Rajasthan, India

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## Abstract

A survey was carried out in different parts in Mandal tehsil of southern Rajasthan to gather information regarding the uses of medicinal plants by the tribals of this region. The survey is based on the exhaustive interviews with local physicians practicing indigenous system of medicine, village head men, priests and tribal folks. During the study 30 species belonging to 23 families were recorded. Some are being used in abortifacient, leucorrhoea, menstruation problems, and recovery after delivery. Sexual debility, spermatorrhoea, for male child and urinary problems. In the present paper an attempts has been made to document the traditional phytotherapeutic uses regarding to sexual debility and birth control among the Tribals of Southern Rajasthan. List of plant species along with their botanical identities, local name and mode of administration for effective control of different ailments is given.

**Keywords:** Ethnomedicine, Sexual Debility, Birth Control, Mandal Tehsil, Southern Rajasthan.

## Introduction

India is a repository of medicinal plants. The herbal treasure of nation is rich in its floristic wealth. From old ages, exploration of plants continues till day for the benefits of mankind. Propagation of this ethnic knowledge regarding plant uses is only through oral means (Jain, 1967). Even today in most of the rural areas, people depend on local traditional healing system for their primary healthcare. The tribals of remote areas in Mandal tehsil of southern Rajasthan. Tribals are totally dependent on herbs for their healthcare (Eddouks, et al. 2002). Much of the world's population depends upon traditional medicine to meet daily health requirements. Ethnobotanical survey of medicinal plants used for various aspects have been carried out from different parts of the India (Jain, 1967; Rao, 1981; Pie & Manandhar, 1987; Muhammad & Khan 2008; Mannandher, 1995). In Rajasthan, these studies have been carried out by various botanists from different parts of the state (Sebastian & Bhandari, 1984, 1988; Singh & Panday, 1980; Joshi, 1995; Katewa & Arora, 1997; Singh, 1999; Katewa et al. 2003, 2008, 2010; Trivedi, 2002; Sharma, 2002; Meena & Yadav, 2006, 2007, 2010; Jain et al., 2005, 2008). As human behavior has a direct impact on the plant communities with which they interact, these interactions are the focus of ethnobotany. Researchers have emphasized the need of documentation and application of traditional knowledge in the use of natural resources.

Rajasthan is one of the largest states and is located in the North western part of India. Geographically, it lies between 23°3' to 30°12' N longitudes and 69°30' to 78°17' E latitudes. Mandal tehsil lies in southern part of Rajasthan the tribal belt in which Bhil and Meena are the main tribes. For these people, the surrounding plants form an integral part of their culture and information's regarding their uses are passed orally from generation to generation.

The climate of the Mandal tehsil Bhilwara Rajasthan is tropical with the maximum temperature ranging between 38.3°C to 46.0°C (during summers) and the minimum between 6.18°C to 11.6°C (during winters). Average annual rainfall has been recorded to be 66.75 cm. This area is characterized by the tropical deciduous type

of vegetation consisting of *Anogeissus latifolia* (Roxb. ex DC.) Wall. ex Guill & Perr., *Anogeissus pendula* Edgew., *Balanites aegyptiaca* (Linn.) Delile, *Boswellia serrata* Roxb., *Diospyros melanoxylon* Roxb., *Madhuca indica* J.F. Gmelin, *Tectona grandis* Linn. f., *Terminalia arjuna* (Roxb. ex DC.) Wight & Arn. etc. as the important plant species.

Ethnomedicine is the system maintaining health and curing diseases based on traditional beliefs and traditional knowledge, skills, methods and practices. The tribal's people harbour the vast diversified vegetation, which is mainly deciduous forest. Some of the herbal medicines are being used for population control and to treat sexual diseases. Traditional sterilization method based on ethnomedicine is used to control population growth rate; includes abortion at initial weeks, preventing conception or making the couple sterile. The tribal people also use the local herbal medicine to cure sterility, enhance the chances of conception and to cure sexual diseases like leucorrhoea, gonorrhoea and regularises menses.

#### Aim of the Study

The main aim of the present study was to document the ethnomedicines uses, used to control sexual diseases and birth rate.

#### Research Design

#### Material and Methods

Field trips in different parts of southern Rajasthan were conducted with the local medicine men of 25 to 65 years age group. Questionnaires are asked from the male and female people by the authors. Generally tribals, who know about the herbal medicine, do not want to give all the informations because they believe that when identity of the medicinal plant is disclosed its medicinal properties will be lost Meena (2010). For this reason the informations collected from the tribals is an important aspect of ethnobotanical study Meena and Yadav

(2010). The peoples who can provide. Informations about medicinal plants were consulted and includes. For authenticity about medicinal properties of plants the information collected during fieldwork were verified at different places through different informants and in different seasons.

Each of the plant species recorded has been collected with the help of the informants and photographs were also taken. The species were identified with the help of reputed flora of India Series- 2 [Shetty & Singh, 1987-1993 (Flora of Rajasthan volume 1-3, Botanical Survey of India)]. The voucher specimens were deposited in the Herbarium, Department of Botany, MLV Government College, and Bhilwara.

#### Observations

#### Result

The data on ethnomedicinal plants collected from the study area such as the botanical name, local name, family and the traditional methods of drugs administration in different ailments are being provided in table 1. In the enumeration, data on medicinal uses are arranged alphabetically, each by its botanical names followed by name of family and local names are enumerated.

During the present study, 30 plant species belonging to 29 genera and 23 families being used by tribes of mandal tehsil of southern Rajasthan to treat ailments such as to control emmenagogue, fertility, vigour & vitality, galactagogue, irregular menses, menstrual disorders, sexual diseases, swelling of testis, to check bleeding after delivery, to control birth rate using fresh plant at flowering and fruiting stage as well as dried plant material have been recorded. They firmly believe in the traditional way of treatment of various ailments using medicinal plants rather than modern medical treatment.

**Table 1 Traditional Ethnomedicinal Plants Used for Sexual Debility and Birth Control in Southern Rajasthan**

S.No.	Plant name	Family	Local Name	Mode of administration
1.	<i>Actinopterys radiata</i> (Sw.) Link. (Voucher No.: ML VGCB Herb/3720)	Actinopteridaceae	Morpankhi	The pastes of whole plant at maturation stage mixed with cow's milk are given in the morning for 21 days in case of irregular menses.
2.	<i>Amaranthus viridis</i> L. (Voucher No.: MLVGCB Herb/2134)	Amaranthaceae	Dandi	10 gm root crushed to prepare 50 ml of decoction and used thrice a day to cure menstruation problems. The 5 gm seed paste is applied on back bone during pregnancy to cure backbone ache.
3.	<i>Anogeissus latifolia</i> (Roxb. ex DC.) Wall. ex Guill & Perr. (Voucher No.: MLVGCB Herb/2815)	Combretaceae	Dhawari	The gum is used during winter season as well as after delivery in the form of laddu for 15-45 days to cure sexual debility.
4.	<i>Asparagus racemosus</i> Willd. (Voucher No.: MLVGCB Herb/5612)	Liliaceae	Satawari	1 tsp juice of tuberous roots is given orally for 15 days to increase sexual debility.
5.	<i>Boerhavia diffusa</i> L.	Nyctaginaceae	Punernava	1 tsp. leaves juice is taken 4 - 5

	(Voucher No.: MLVGCB Herb/1705)			times a day orally to check bleeding after delivery.
6.	Bombax ceiba L. (Voucher No.: MLVGCB Herb/1034)	Bombacaceae	Sibal	Half cup decoction of stem bark of Bombax ceiba L. mixed with ½ cup decoction of Abelmoschus esculentus (L.) Moench. root is taken orally for 8 days by males, it regenerates the fertility. 5 gm of flower powder is taken by women with milk to cure menstrual disorders.
7.	Boswellia serrata Roxb. ex. (Voucher No.: MLVGCB Herb/2176)	Burseraceae	Salar	1 kg gum is taken with sweet dish for 15 days once a day to improve impotency in men.
8.	Butea monosperma (Lam.) Taubert. (Voucher No.: MLVGCB Herb/128)	Papilionaceae	Khankra, Sura	The gum is known as kamarkas, it is used in preparation of laddu (a mixture of flour and plant gum) and given after delivery.
9.	Butea superba Roxb. (Voucher No.: MLVGCB Herb/1076)	Papilionaceae	Khankarvel	Roots extract is used by male before intercross for sexual enhancement and to maintain prolong erection.
10.	Carica papaya L. (Voucher No.: MLVGCB Herb/2234)	Caricaceae	End kakari	200 gm of unripe fruits are used orally once a day for three days in early stages of pregnancy for abortion.
11.	Ceropegia bulbosa Roxb. Voucher No.: MLVGCB Herb/1180) (Fig. 1)	Asclepiadaceae	Khadula	Two raw tubers are eaten daily during rainy season by male and female to enhance the fertility & vitality.
12.	Chlorophytum tuberosum (Roxb.) Baker (Voucher No.: MLVGCB Herb/2875) (Fig. 2)	Liliaceae	Dholi musali	500 gm dried fasciculated roots are used in the preparation of laddu with 1 kg dried gum of Anogeissus latifolia which are taken for 15 days during winter season by male and female to enhance the fertility, vigour & vitality.
13.	Cheilocostus speciosus (J. Koenig) C. D. Specht (Voucher No.: MLVGCB Herb/7190) (Fig. 3)	Costaceae	Mahalakari	1 tsp. root powder is taken by male twice a day for 3 - 4 days in sexual debility.
14.	Diplocyclos palmatus (L.) Jeffry (Voucher No.: MLVGCB Herb/980)	Cucurbitaceae	Shivlingi	The seeds are crushed and make a pellet with jaggery and one pellet is given three times a day for 45-days to bear male child.
15.	Echinops echinatus Roxb. (Voucher No.: MLVGCB Herb/1059) (Fig. 4)	Asteraceae	Oont Kantilo	Pieces of 5 cm size of its fresh root kept at the back of head touching scalp or coil the fresh root and kept in the naval before parturition time or during delivery pain for easy delivery in human beings.
16.	Ehretia laevis Roxb. (Voucher No.: MLVGCB Herb/857) (Fig. 5)	Ehretiaceae	Tambolan	Five to ten ml bark juice is given orally just after delivery, it relieves delivery pain.
17.	Erythrina stricta Roxb. (Voucher No.: MLVGCB Herb/2371)	Papilionaceae	Kesuri	Twenty to thirty ml juice of fresh or dried flowers is given orally for abortion; abortion takes place within 12 hrs only one dose is sufficient.
18.	Ficus bengalensis L. (Voucher No.: MLVGCB	Moraceae	Bar, Bargad	Five or ten drops are taken with sweet (patasa) by male for to 45

	Herb/210)			days to make seamen thick and regain sexual potentiality.
19.	<i>Gloriosa superba</i> L. (Voucher No.: MLVGCB Herb/1072)	Liliaceae	Kalahari	1 tsp extract of tuber is mixed with root extract of <i>Solanum virginianum</i> L. and taken by female as abortifacient.
20.	<i>Habenaria marginata</i> Colebr. (Voucher No.: MLVGCB Herb/7093) (Fig. 6)	Orchidaceae	Piwali	10 gm tuber paste is applied externally to cure, swelling of testis.
21.	<i>Leea macrophylla</i> Roxb. ex Hoenem. (Voucher No.: MLVGCB Herb/5923) (Fig. 7)	Leeaceae	Hastipalash	½ - 1 tsp root powder is taken by male once a day for 5 - 7 days to cure sexual debility.
22.	<i>Madhuca indica</i> J.F. Gmelin (Voucher No.: MLVGCB Herb/3087) (Fig. 8)	Sapotaceae	Mori	The dried corollas are given to tribal female to increase lactation.
23.	<i>Papaver somniferum</i> L. (Voucher No.: MLVGCB Herb/7160)	Papaveraceae	Amal, Afim	During sexual matting tribal male kept the opium about ½ to equal like a Maize grain, in their mouth for long term matting.
24.	<i>Solanum virginianum</i> L. (Voucher No.: MLVGCB Herb/2209)	Solanaceae	Kateli, Bhurangni	One fruit is used for three days ones a day as abortifacient at initial stages.
25.	<i>Tecomella undulata</i> (Roxb.) Seem (Voucher No.: MLVGCB Herb/1779)	Bignoniaceae	Rohira	1 gm of bark powder is taken with 100 ml of hot milk for 7 days for abortion.
26.	<i>Terminalia arjuna</i> (Roxb. ex DC.) Wight & Arin (Voucher No.: MLVGCB Herb/2174)	Combretaceae	Kahua	1 gm tender leaf paste mixed with 2 tsp sugar and 100 ml of cows milk. It is given once a day for 21 days to cure spermatorrhoe.
27.	<i>Trachyspermum ammi</i> (L.) Sprague ex Terrill (Voucher No.: MLVGCB Herb/1009)	Apiaceae	Ajwain	1 kg of seed powder mixed with Gur and Desi ghee (Butter) is taken orally once a day to treat and regularize scanty mensturation. It is also used to clear uterus and regularise menstrual cycle
28.	<i>Trigonella foenum-graceum</i> L. (Voucher No.: MLVGCB Herb/2276)	Papilionaceae	Methi	500 gm of seeds are crushed to prepare laddu. 1 laddu is taken orally for abortion.
29.	<i>Withania coagulans</i> (Stocks.) Dunal (Voucher No.: MLVGCB Herb/1070) (Fig. 9)	Solanaceae	Paneer bandh	10 gm fresh leaf paste applied on testis to get relief from swelling and pain. Fruit infusion is used by females as emmenagogue and galactagogue.
30.	<i>Zingiber officinale</i> Roscoe (Voucher No.: MLVGCB Herb/1470)	Zingiberaceae	Sounth	Its dried powder is given after delivery as tonic to relieve flatulence and delivery pain in first two weeks.

### Discussion

30 plant species belonging to 23 families are used being as ethnomedicine to control sex related diseases and birth rate by the tribals of southern Rajasthan of these, 3 families are of monocots, 19 are of dicots and one is of pteridophytes. *Solanum virginianum* L., *Carica papaya* L., *Gloriosa superba* L. (Katewa et al., 2008), *Erythrina stricta* Roxb., *Tecomella undulata* (Roxb.) Seem and *Trigonella foenum-graceum* L. are usually used as abortifacient to control birth rate in initial stages, while *Amaranthus viridis* L. is used to regularize menstrual cycle. The tribal people use *Habenaria*

*marginata* Colebr., *Withania coagulans* (Stocks.) Dunal to get relief in swelling on testis. *Butea superba* Roxb., *Papaver somniferum* L. and *Chlorophytum tuberosum* (Roxb.) Baker were used to enhance sexual potency in males. *Butea monosperma* (Lam.) Taubert., *Trachyspermum ammi* (L.) Sprague ex Terrill and *Zingiber officinale* Roscoe are used for regularising menses after delivery. These findings about the sexuality have not been reported by earlier workers of Rajasthan (Sebastian & Bhandari, 1984, 1988; Singh & Panday, 1980; Joshi, 1995; Katewa & Arora, 1997; Singh, 1999; Katewa et al. 2003, 2008,

2010; Trivedi, 2002; Sharma, 2002; Meena & Yadav, 2006, 2007, 2010; Jain et al. 2005, 2008).

Some plants such as *Chlorophytum tuberosum* (Roxb.) Baker, *Ceropegia bulbosa* Roxb. and *Ficus bengalensis* L. are used to recovery of fertility in both male as well as female. The roots of *Echinops echinatus* are kept at the back of head for easy delivery (Meena & Yadav, 2010).

There is much ethnomedicinal knowledge concerning about sexual disease and birth control treatment within tribal communities of southern Rajasthan. Ethnomedicinal knowledge of tribals of the area on abortifacient, sexual fertility and female contraceptives, which is one of the important information innovations used by tribals, is quite relevant to present day situations. The other issues needed to be addressed are efficacy, quality, safety and standardisation of doses (Muhammad & Khan, 2008). It appears that exploitation of some species like *Cheilocostus speciosus* (Koen.) Specht, *Habenaria marginata* Colebr., *Leea macrophylla* Roxb. ex Hoenem. and *Withania coagulans* (Stocks.) Dunal for ethnomedicine is unsustainable and might threaten the local plant population. Afforestation, protection and cultivation of precious wild medicinal flora of an area are necessary steps for long time use. The ethnomedicinal informations require further research, while efficacy of various indigenous practices and folklore uses should be subjected to pharmaceutical and phytochemical investigations in order to identify how these can be of practical advantage in medicine development. After all aspects of research has been completed this knowledge is intellectual properties of this regions tribes.

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Fig. 1. *Ceropegia bulbosa*Fig. 2. *Chlorophytum tuberosum*Fig. 3. *Cheilocostus speciosus*Fig. 4. *Echinops echinatus*Fig. 5. *Ehretia laevis*Fig. 6. *Habenaria marginata*Fig. 7. *Leea macrophylla*Fig. 8. *Madhuca indica*Fig. 9. *Withania coagulance*