



Ethnomedicinal plants used in sexual disorder

in Balangir and Deogarh districts, Odisha, India

Harish Singh*, PA Dhole, R. Saravanan and PK Baske

Central Botanical Laboratory, Botanical Survey of India, Howrah 711 103 (WB), India

**Corresponding author: harish_bsi@yahoo.co.in*

Abstract

The present paper deals with 31 ethnomedicinal plants used for the treatment of sexual disorder /debility (infertility, erectile dysfunction, less sperm count, dilute semen, arousal disorder, less sexual stamina/desire, premature ejaculation, spermatorrhoea etc.) by 28 major tribal groups and many non-tribal communities in 168 villages of Balangir and Deogarh districts, Odisha. These ethnomedicinal uses were compared and cross-checked with the data mentioned in well-known standard Indian ethnomedicinal as well as medicinal literatures and found that most of the medicinal uses of the referred plants have not been reported earlier. These plant species are arranged in alphabetical order followed by family, habit, local name (s), locality (ies), field number (s) along with ethnomedicinal uses and cross check report with earlier literature.

Keywords: Balangir; Deogarh; Odisha; Sexual disorder

Received: 24th May 2017; Revised: 13th June; Accepted: 18th Jun ' 2017; © IJCS New Liberty Group 2017

Introduction

Ethnomedicinal plants play a major role in the life of tribal people, as they are living in remote areas; where of modern medical facilities are not available. They collect available medicinal plants from the area for maintaining their health and curing various diseases and disorder based on folk beliefs, traditional way of treatment from generation to generation. As the tribal people are generally shy and conservative in nature and they hesitate to disclose their secret sexual related troubles with others even with modern medical doctors. Therefore, they prefer to contact local herbal healers like 'Vaidya' to treat such secret disorders by using available local herbal medicine. In perusal of literature, it is found that there

has been no systematic recording of local knowledge used in sexual diseases in Odisha. Therefore, an attempt has been made to document the traditional phyto-therapeutic uses for the treatment of sexual disorder among the tribal of Balangir and Deogarh districts. During the extensive ethnobotanical survey of Balangir and Deogarh districts, Odisha, it was observed that more than two dozen plants are being used by the different tribal communities (Khond, Saora, Matya, Oraon, Munda, Kisan, Gond, Bhuinya, Paudia Bhuinya, Kolho, Khadia, Shabar, Binjhal, Kandho) for the treatment of sexual debility (infertility, erectile dysfunction, arousal disorder, less sperm count, dilute semen, less sexual stamina, spermatorrohea etc.).

Materials and Methods

Field tours have been undertaken in 168 remote tribal villages and forest areas of Balangir and Deogarh districts amongst 28 tribal groups and other rural people during 2011-2015 and collected 1192 ethnomedicinal uses for the treatment of 95 different diseases, disorders and ailments. Of these, 30 plants species are being used for the treatment of sexual disorder in the district. Old and experienced men, women, and medicine men 'Vaidya', 'Kaviraj' were interviewed for the first hand information on ethnomedicinal uses for particular disorder and repeated and cross queries were also done to confirmation and verification of the information. These plant specimens were identified with the help of keys and botanical description described in regional floras (Haines, 1921-25), (Mooney, 1941, 1950) and (Saxena and Brahmam, 1994-96).

The latest botanical nomenclature has been checked with world renowned and widely accepted website <http://www.theplantlist.org>. (The Plant List, 2013). After matching with the authentic specimens housed in Central National Herbarium (CAL), these voucher specimens have been deposited in Ethnobotanical Herbarium of Central Botanical Laboratory (CBL), Howrah. Further, these ethnomedicinal uses were compared and cross checked with well-known standard Indian ethnomedicinal (Jain, 1991) and medicinal literatures (Kirtikar and Basu, 1935; Chopra et al., 1956; Anonymous, 1948-76; Ambasta, 1986) and found that most of the uses for particular disorder as well as referred plant species have not been reported earlier. These plant species are enumerated in alphabetical

order with their family in parenthesis, followed by habit, local name (s), locality (ies), voucher number (s), along with mode of preparation and method of ethno medicinal uses for the treatment of sexual debility and cross check report with earlier literature.

Discussion

After comparison and cross checking of collected uses with relevant literatures, it is revealed that 22 plants have not recorded earlier for the treatment of sexual disorder. However, the same uses of *Asparagus racemosus*, *Curculigo orchioides* and *Mucuna pruriens* are reported in all literature while the same uses of *Bauhinia vahlii*, *Butea monosperma*, *Hybanthus enneaspermus*, *Peucedanum dhana*, *Pueraria tuberosa* and *Withania somnifera* are mentioned in few literatures. Due to lack of interest of young generation towards traditional knowledge, rapid socio-economic, environmental changes, urbanization and unscientific exploitation of natural forests, these valuable knowledge as well as plant species are getting depleted leading to their extinction.

Therefore, it is necessary to collect and document such precious ethnomedicinal knowledge for the treatment of sexual disorders from the tribal and remote areas before their complete depletion. Studies have proven that certain vitamins, hormones, proteins, non-essential fatty acids, and specific kind of food habits are responsible to testosterone production and improve blood circulation in certain areas of the body which can ignite or boost sexual desires. Therefore, these plants should be analyzed chemically for identification of their active constituents responsible for their efficacy to these

Table 1. Ethnomedicinal plants and their uses for sexual disorders

S. No.	Botanical Name, Family, Habit, Local name (s), Locality (ies), Voucher number (s)	Ethnomedicinal uses for sexual disorder	Uses cross checked with well-known standard Indian ethnomedicinal and medicinal literatures				
			Indian Medicinal Plants	The Wealth of India- Raw Materials	Glossary of Indian Medicinal Plants	The Useful Plants of India	Dictionary of Indian Folk Medicine and Ethnobotany
1	<i>Andrographis paniculata</i> (Burm.f.) Nees (Acanthaceae); Herb/Under shrub; <i>Kal Megh</i> , <i>Bhui Nimb</i> , <i>Bhue-nimb</i> ; Balam 33205, Kelda, Autad 36124	Seeds (1gm) is pasted and given with honey or milk for two times in the treatment of impotency.	x	x	x	x	x
2	<i>Argyreia capitiformis</i> (Poir.) Ooststr. (Convolvulaceae); Climber; <i>Bridha Dharak</i> ; Simloi forest 33452	Seed powder is given with milk to treat sexual debility.	*x	*x	*x	*x	*x
3	<i>Argyreia nervosa</i> (Burm.f.) Bojer (Convolvulaceae); Climber; <i>Budha Dharak</i> ; Balam 33248	Seeds are fried with rectified butter (Ghee) and taken with milk in the treatment of impotency.	*x	x	*x	x	x
4	<i>Artocarpus lacucha</i> Buch.-Ham. (Moraceae); Tree; <i>Jawutha</i> ; Balam 33263	Reddish ripe sour-sweet fruits are prescribed in the treatment of impotency.	x	x	x	x	x
5	<i>Asparagus racemosus</i> Willd. (Asparagaceae); Shurb; <i>Chhatawari</i> , <i>Satawari</i> , <i>Iswarjata</i> ; Kirbhanji Jungle, 30133, Barni Forest, Tikhari, Negipali, 31308, Dudhapasi, Balam 33308, Mandashila Reserve Forest, Autad 36144	Tuberous roots are pasted with water and taken three times a day for 3 days in the treatment of spermatorrhoea. Fresh root is given with milk for one month continuously in the treatment of spermatorrhoea, leucorrhoea. Tubers are powdered and taken with milk daily as aphrodisiac. It is said that person will be strong like God 'Brahma' if consumed continuously for one year. Roots are extracted and given with milk or honey to enhance sperm count.	√	√	√	√	√
6	<i>Barleria prionitis</i> L. (Acanthaceae); Shrub; <i>Kanta Malti</i> ; Barhampura, Patnagarh, 30003, Harishankar, 30016	Seeds and leaves are pasted and taken with milk or honey in early morning for increase concentration of semen.	x	x	x	x	x
7	<i>Bauhinia vahlii</i> Wight & Arn. (Caesalpiniaceae); Liana: <i>Sial Patta</i> , <i>Sial Lah</i> ; Barni forest, Banji Forest, 31362	Seeds decoction taken at bed time as an aphrodisiac.	√	√	x	x	x
8	<i>Biophytum sensitivum</i> (L.) DC. (Oxalidaceae); Herb; <i>Shukra Sanjivani</i> ; Simloi Forest 33451	Whole plant is powdered with the root of <i>Withania somnifera</i> , <i>Curculigo orchioides</i> , <i>Bombax ceiba</i> and crystal sugar. The resultant powder (10 gm) is given daily with rectified butter or honey to activate the longevity of sperms.	x	x	x	x	x
9	<i>Butea monosperma</i> (Lam.) Taub. (Fabaceae); Small Tree; <i>Palas</i> ; Chhuri Bahal 33265	Dried flowers (6 gm) is mixed with sugar (3 gm) and given for 7 days in the treatment of leucorrhoea. Dried flowers are boiled with water and sugar and taken as tea in sperm debility.	√	x	x	x	x
10	<i>Butea superba</i> Roxb. (Fabaceae); Woody	Dried white flowers are powdered with black piper and	x	x	x	x	x

	Climber; <i>Budhel, Badel Lah</i> ; Kirbhanji Jungle, 30128, Barni Forest, 31322	taken (10-15 gm) daily for 7 days with water in menstruation cycle disorder to sterile woman with believe that she will be conceive after this treatment.					
11	<i>Cajanus scarabaeoides</i> (L.) Thouars (Fabaceae); Climbing Herb; <i>Ban Kulath</i> ; Mandashila Reserve Forest, Autad, Deri-chuwa 36137	All parts are given in the treatment of sperm debility.	*x	*x	*x	*x	*x
12	<i>Cochlospermum religiosum</i> (L.) Alston (Cochlospermaceae); Tree; <i>Ganiyari, Ban Sebati</i> ; Baddalia 33424	Soaked rice and a pulse (<i>Vigna mungo</i> (L.) Hepper) are grind and the paste is filled inside the fruit rind /cover for 24 hours. It is taken orally to increase sexual desire.	x	x	x	x	x
13	<i>Curculigo orchiooides</i> Gaertn. (Hypoxidaceae); Herb; <i>Talmuli, Talmudi, Kali Musali</i> ; Dudhapasi 33325, Mandashila R.F., Medh Jungle 36141	Roots are collected, washed and chewed in weakness and sexual debility.	√	√	√	√	√
14	<i>Dendrocalamus strictus</i> (Roxb.) (Poaceae); Tall Grass: <i>Sadwa Bans, Dhaba Bansa, Banso</i> ; Chhuri Bahal 33288, Chikni Ghati 36327	Seeds are eaten for aphrodisiac purposes.	x	x	x	x	x
15	<i>Euphorbia fusiformis</i> Buch.-Ham. ex D.Don (Euphorbiaceae); Herb; <i>Dudhi</i> ; Deri-chuwa 36370	Rhizome powder is given in the treatment of sperm debility.	x	x	*x	*x	x
16	<i>Ficus auriculata</i> Lour. (Moraceae); Small Tree; Dimari; Teleibani 36288	Fruits are consumed in premature ejaculation and increase sexual power.	x	*x	*x	x	x
17	<i>Firmiana simplex</i> (L.) W. Wight (Malvaceae); Tree; <i>Girdhini, Giradhani</i> ; Prabhasuni Forest, Baghmunda 33353, Kailash 36274	Seeds are collected and eaten for increasing sperm quantity (<i>Virya Bardhak</i>). Gum is given with water/ milk or honey twice a day for 15 days in the treatment of leucorrhoea and spermatorrhoea.	x	*x	*x	x	*x
18	<i>Grewia hirsuta</i> Vahl (Tiliaceae); Shurb; <i>Suna-regda</i> ; Pradhan Pat Reserve Forest, Baddalia 33386	Ripe reddish fruits are prescribed in sexual debility.	x	*x	x	x	x
19	<i>Hybanthus enneaspermus</i> (L.) F. Muell. (Violaceae); Herb; <i>Beng Tunia, Madan Mastak</i> ; Baddalia 33432, Deri-chuwa 36245	Plants powder is given to enhance sexual power.	x	√	√	√	√
20	<i>Indigofera linifolia</i> (L.f.) Retz. (Fabaceae); Spreading Herb; <i>Madan Mastak</i> ; Simloi, Kansar R. F. 33446	Roots are washed, dried and powdered and 4-5 gm is given with hot milk daily at bed time for 15 days to enhance sexual power.	x	x	x	x	x
21	<i>Jasminum arborescens</i> Roxb. (Oleaceae); Climber; <i>Juhi</i> ; Balam 33219	Extract of leaves and flowers are given in the treatment of leucorrhoea, spermatorrhoea and impotency.	x	x	x	x	x
22	<i>Melampodium divaricatum</i> (Rich. ex Rich.) DC. (Asteraceae); Herb; <i>Tejraj</i> ; Bhitarpad 36224	Roots or flowers are powdered and given daily with honey for 5-7 days to increase sexual power.	*x	*x	*x	*x	*x
23	<i>Mucuna pruriens</i> (L.) DC. (Fabaceae); Climber; <i>Baikhujan, Baidanka</i> ;	Seeds powder (15 gm) given with milk and sugar crystal in the morning and evening for 7-15 days for enhance	√	√	√	√	√

	Harishankar, 30038, Barni Forest, Negipali, 31325	energy and blood circulation. Seeds are boiled with milk and then pasted, shade dried and powdered. The powder is given with sugar crystal and milk daily for 15-30 days to increase the concentration of semen. Seeds are boiled with cow milk and remove seed coats after cooling. These seeds are pasted with honey and rectified butter and made pills. The pills (5 gm) are taken with milk for one month to strong semen, as aphrodisiac and to enhance the sexual power.					
24	<i>Peucedanum dhana</i> Buch.- Ham. ex C. B. Clarke (Apiaceae); Herb; <i>Tejraj</i> ; Chhuri Bahal 33310, Gopal Pali, Kaunsi Bahal Jungle 36384	The tuberous root is pasted and made small pills and given 2 tablets morning and evening for 21 days to enhance sexual power, vigor and vitality. Roots are chewed by local for enhancement of sexual desire.	x	√	√	x	x
25	<i>Pluchea lanceolata</i> (DC.) C. B. Clarke (Asteraceae); Herb; <i>Rasna</i> ; Badtalia Forest 33416	Roots or all parts (<i>Panchang</i>) extract is given twice a day for 2-3 months with honey or milk in the treatment of debility of sperms.	x	x	x	x	*x
26	<i>Polygala arvensis</i> Willd. (Polygalaceae); Herb; <i>Madam Mastak</i> ; Hathisal Road 36380	Plants powder is given to enhance sexual power.	*x	x	*x	*x	x
27	<i>Polygala chinensis</i> L. (Polygalaceae); Herb: <i>Madan Mastak-2</i> ; Deri-chuwa 36246	Plants powder is given to enhance sexual power.	x	x	x	x	x
28	<i>Pueraria tuberosa</i> (Willd.) DC. (Fabaceae); Woody Climber; <i>Bidari Kanda, Mardan, Pani Kanda, Bhuin Kumala, Bhuin Kukharu</i> ; Pradhan Pat Reserve Forest, Simloi 33383, Kailash, Teleibani Reserve Forest 36285	The extract of tubers is taken with honey in debility, impotency and weakness.	√	x	x	x	√
29	<i>Stachytarpheta indica</i> (L.) Vahl (Verbenaceae); Herb; <i>Mitha Akarkara</i> ; Bhitarpad 36223	Tubers are given with milk and crystal sugar for one month as tonic for vigour, vitality and strong semen (<i>Dhatu Pushikar</i>).	x	*x	x	x	x
30	<i>Terminalia alata</i> Heyne ex Roth Syn <i>T. tomentosa</i> Wight & Arn. (Combretaceae); Tree; <i>Asan</i> ; Chhuri Bahal 33285	Gum is taken twice a day for 21 to 30 days with milk and crystal sugar in the treatment of weakness, premature ejaculation, and low sperms counts in semen and bleeding during intercourse	*x	x	*x	x	x
31	<i>Withania somnifera</i> L. (Solanaceae); Shrub; <i>Aswagandha, Asgandh</i> ; Bhitarpad, Simloi forest 33473, Hathisal 36295	Roots are powdered and given for strength in weakness and spermatorrhoea. Root of the plant is powdered with the <i>Curculigo orchoides</i> , <i>Bombax ceiba</i> and crystal sugar. It (10gm) per day is given with rectified butter or honey to activate the longevity of sperms. Roots are powdered and given with milk to enhance sexual power and gynaecological disorders.	x	√	√	√	√

x = same uses not reported; *x = plant and uses not reported; √ = same uses reported

debilities by various pharmaceutical industries /laboratories to give a lead to development of new herbal drug molecules.

Acknowledgements

The authors are thankful to the Director, Botanical Survey of India, Kolkata and Head of Office, Central Botanical Laboratory, Howrah for providing all the necessary facilities. We are also grateful to the all officials of the Forest Department of Balangir and Deogarh districts for their co-operation rendered during the field survey. We express our deep sense of gratitude to those numerous tribal informants, who freely discussed during the field survey, without their cooperation, this work would not have been possible.

References

- Ambasta SP (1986). The Useful Plants of India. NISCAIR, CSIR (Reprinted 2006), New Delhi: India.
- Anonymous (1948-1976). The Wealth of India- Raw Materials. CSIR, Vol. 1-11, New Delhi: India.
- Chopra RN, Nayar SL, Chopra IC (1956). Glossary of Indian Medicinal Plants. CSIR, New Delhi: India.
- Haines HH (1921-1925). The Botany of Bihar and Orissa. Calcutta: Botanical Survey of India, Vol 1-3 (Reprinted 1961).
- Jain SK (1991). Dictionary of Indian Folk Medicine and Ethnobotany. Deep Publications, New Delhi: India.
- Kirtikar KR, Basu BD (1935). Indian Medicinal Plants. Dehradun: Bishan Singh Mahendra Pal Singh Vols 1-4 (Reprinted 1984).
- Mooney HF (1941). Some addition to the Botany of Bihar and Orissa. Ind. For. Rec. 3 (2):63-119.
- Mooney HF (1950). Supplement to Botany of Bihar and Orissa. Ranchi: Catholic Press, India.
- Saxena HO, Brahmam M (1994-96). The Flora of Orissa. Bhubaneswar: Regional Research Laboratory and OFDC, Vols.1-4.
- The Plant List (2013). Version 1.1. Published on the Internet; <http://www.theplantlist.org/> (Accessed on 11 September, 2016).