

## **Native Phytotherapy for Child and Woman Diseases from Assam in Northeastern India**

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### **Abstract**

Thirteen native plant remedies for child diseases and twenty-one for woman diseases, prevalent among different ethnic groups of Assam, are reported along with local names of the plants, method of administration and prescribed dose.

### **INTRODUCTION**

Assam is one of the states in northeastern India, situated between 20-28°N latitude and 90-96°E longitude. It is inhabited by several ethnic groups with their distinct way of life, beliefs, traditions, dialects and cultural heritage. The Bodos, the Rabhas, the Mishings, the Karbis, the Tai Ahoms and the Dimasas are the main ethnic groups, which together with the main community, the Assamese, form the main bulk of population of the state.

The total population of the state is 3.66 crores. About 80 per cent of the population resides in villages and often in remote areas far away from urban centers. The tropical and sub-tropical forests around the habitats of the rural population have provided them with most varied and abundant resources. The surrounding plants form an integral part of their material and spiritual culture. Among the potential uses of plants, the native folk medicine is of high priority. Some published ethnobotanical contributions are encouraging.

Most of the rural people of Assam have their own household remedies for common ailments, while for complicated ailments the service of traditional healers are sought. The illiterate and less educated people seldom attend the modern medical treatment and rely exclusively on their own herbal cures. It is not that health centers are not to their reach, but they are reluctant to attend the modern treatment because of the social prejudice and afraid of being known of their ailments to the fellow members of their society.

It is only through the oral tradition of communication that the information about the plant remedies are passed on from one generation to another. Usually the traditional healers have maintained secrecy of the treatment with plants, yet they have played a major role in rural healthcare. Apart from the plants, shamanistic practices are also common as alternate means of cures.

### **EXPERIMENTAL**

The data presented here are based on first hand information collected by personal contact with the people and practitioners of different ethnic

groups in different villages, and by personal observations on application of the remedies by the author. It was for obvious reasons that the informants were of fair sex. The ailments of the woman are customarily kept back from the knowledge of the male members of their families and the child care is still regarded as the activity only of the woman among the ethnic groups of Assam. All the informants were above the age of 50 years and were well versed with the flora of their area. The data collected were verified and cross-checked at different villages and among different ethnic groups by showing plant specimens to the informants. The data were considered valid if the author could observe the actual application or similar answers were given by the informants in different villages and by different ethnic groups.

Voucher specimens were collected along with the information on uses of plants. The vernacular names, parts used, method of preparation and administration, and approximate dose used were also recorded. The specimens were identified by the author with the help of herbarium specimens of the Herbarium of Botany Department, Gauhati University and the relevant literature. The voucher specimens of the study are deposited in the same herbarium.

The plants are arranged in alphabetical order by their scientific names along with their families in parenthesis. The local names whenever available (Assamese-A, Bobo-B, Dimasa-D, Karbi-K, Mishing-M, Rabha-R and Tai Ahom-T) are given following their botanical names and families.

#### CHILD DISEASES

1. *Andrographis paniculata* (Burm. f.) Wall. ex Nees (Acanthaceae), Kalmegh (A), Rikang-kani (K), Kra-hom-tak (T).

In hooping cough one teaspoonful of the paste of the root with rhizome of *Zingiber zerumbet* (L.) Rosc. ex Smith in equal parts by weight is given thrice daily for fifteen days.

2. *Ananas comosus* (L.) Merr. (Bromeliaceae), Anaras (A), Parauk-jang-phaung (K).

As vermifuge about two teaspoonfuls of the juice of the young leaves, mixed with molasses, are given in empty stomach in the early morning for three consecutive days.

3. *Argemone mexicana* L. (Papaveraceae), Seal-kata (A), Samsu (B). In lispings one or two drops of the latex is applied on the tongue once in every day for 3-4 months.

4. *Blumea balsamifera* (L.) DC. (Asteraceae), Kukur-huta (A), Laru-rui (K), Pha-khi-mon (T).

Babies suffering from disorder of bowel due to defective mother's milk: one teaspoonful of the juice of the young leaves is given once a day till recovery.

5. *Clitoria ternatea* L. (Fabaceae), Aparajita (A), blok-khiw (T).

As vermifuge about two teaspoonfuls of the paste of the seed, with the seed of *Ricinus communis* L. in equal parts by weight are given in empty stomach in the early morning for three alternate days. This recipe is given only to children attending more than two years of age.

6. *Curcuma zedoaria* (Christ.) Rosc. (Zingiberaceae), Keturi (A), Rui-laru (K), Blok-min (T).

In diarrhoea of infants due to teething or exposure to cold, about 1 g of the rhizome rubbed in mother's milk is given once in a day for three consecutive days.

7. *Erythrina stricta* Roxb. (Fabaceae), Boga-modar (A), Antu (B), Maciar-phang (D), Pharse (K), Tagat-asing (M), Mol-madal (R), Blok-deng (T).

For threadworm about one teaspoonful of the juice of the root bark is given twice daily for five consecutive days.

8. *Justicia adhatoda* L. (Acanthaceae), Boga-Bahak (A), Bap-araung (K), Cha-lung-khaw (T).

For cough about one teaspoonful of the roasted shoot, mixed with honey, is given once a day till the child got relieve from the cough.

9. *Mimusops elengi* L. (Sapotaceae), Bakul (A), Blok-cip-rip (T). In croup 20-25 fresh flowers are soaked overnight in half a cup of water and the filtrate is given in the early morning for fifteen consecutive days.

10. *Nymphaea alba* L. (Nymphaeaceae), Bhet (A), Su-khren (B), Choupri (D), Sophri (R), Blok-mu (T).

To expel round-worms the paste of the rhizome with honey is given in empty stomach in the early morning. Depending upon the age of the child from six months to two years, one to three teaspoonfuls of the recipe are given for five consecutive days.

11. *Psidium guajava* L. (Myrtaceae), Madhuri (A), Chaprim (K), Kadam (M), Phak-khram (T).

In dysentery about two teaspoonfuls of the decoction of the shoot are given thrice daily.

12. *Sapindus muhorossi* Gaertn. (Sapindaceae), Ritha (A), Phuwathai (B), Hinghi (D), Thidak-dak-araung (K), Hithaguti (M), Tun-mak-chak (T).

In pneumonia powder of the nut shell, mixed with honey, is made into pills of about 2 g each. One such pill, mixed in warm milk, is given twice daily.

13. *Woodfordia fruticosa* (L) Kurz (Lythraceae), Dhamoni (A), Dheira (B), Dhatri (M), Agni-jwala (R).

In diarrhoea, about one teaspoonful of the powder of the dried flower, mixed in about five teaspoonful of warm water, is given thrice daily. This recipe is very popular and most of the household preserve the dried flowers

for this use.

### WOMAN DISEASES

1. *Achyranthes aspera* L. (Amaranthaceae) Ubtisath (A), Sam-songi (B), Chirchira (D), Naun-phak-pe (K), Champang-michil (R), Blok-chifon (T).

To remove the dead child from the womb a piece of about 5 cm long root is placed in the cervix in such a way that one of its end touches the vagina, to which a thread is tied. Precaution must be taken to remove the piece of root by drawing the thread immediately after the child comes out, otherwise there is possibility that the uterus may also be pulled out.

2. *Acorus calamus* L. (Araceae), Boch (A), Bet (B), Lang-abap (K), Sitha (R), Cham-chu (T).

In painful menses the paste of about 20 g of the rhizome with about 15 g rhizome of *Piper betel* L. and about 10 g rhizome of *Nelumbo nucifera* Gaertn. are made into ten pills and one pill is given daily for ten consecutive days from the first day of menses.

3. *Alstonia scholaris* (L.) R.Br. (Apocynaceae), Chationa (A), Bong-phlong, Bon-khlang-phang (B), Sethona (D), Thang-muo-araung (K), Souti-asing, Sing-gar-asing (M), Sokson (R), Pha-khi-mon (T).

As galactagogue paste of the stem bark with leaves of *Ricinus communis* L. in equal parts by weight is applied on mammae. Regular application, once a day, for at least ten consecutive days is usually prescribed.

4. *Asparagus racemosus* Willd. (Liliaceae), Satmul (A), Champu-rusau-eruiclak (K), Bikkuchara (M).

As galactagogue about two teaspoonfuls of the juice of the root are given twice daily for a week.

5. *Cajanus cajan* (L.) Millsp. (Fabaceae), Rahar (A), Rahar-mah (T). To check secretion of milk, paste of the unripe fruit and leaves is applied on mammae once a day for at least ten consecutive days.

6. *Carica papaya* L. (Caricaceae), Amita (A), Muk-dam (D), Nam-chapi (K), Mak-klang (T).

As galactagogue about two teaspoonfuls of the juice of the root bark are given once a day for five consecutive days.

7. *Cissampeios pareira* L. (Menispermaceae), Tubuki-lota (A), Tarmsi (K), Boing (M), Thau-pom (T).

In delivery pain about three teaspoonful of the decoction of the shoot are given and also applied externally on abdomen. It is said that for better results both internal and external application are essential.

8. *Datum metel* L. (Solanaceae) Dhatura (A), Archi-aba-misang (K).

To tighten the flagged breast, four or five leaves are heated over open fire after smearing them with mustard oil and tied them on the breast. This practice has to be continued, once a day for 8-10 consecutive days. This recipe also helps in drying up of the milk in the breast, which is sometimes essential for mothers delivering dead child.

9. *Hyptianthera stricta* Wet. et Arn. (Rubiaceae), Tantharu-bom-phang (13<sup>th</sup>) Thing-sai rangal (D), Mir-herai (K) Boldiki (R).

As general tonic to expectant Mother two or three teaspoonfuls of the leaf juice are given once a day. Sometimes, instead of leaf juice one teaspoonful powder of dry leaves mixed in hot water is given once a day.

10. *Houttuynia cordata* Thunb. (Saururaceae), Mosondori (A), Han-takral (M), Jamyrdoh (R), Phak-mrak (T).

11. *Momordica cochinchinensis* Spr. (Cucurbitaceae), Bhat-kerela (A), Juluk (K), Mak-khrum-khon (T).

In irregular menses about 10 g of the vegetative buds with about 10 g of black pepper are made into paste and divided into three equal parts, and one part is given daily in empty stomach for three consecutive days from the first day of menses.

12. *Opuntia stricta* (Haw.) Haw. var. *dillenii* (Ker-Gawl.) Benson (Cactaceae), Sagarphena (A), Mir-aud (K), Yang-nik (T).

In excessive menstrual flow, about two teaspoonfuls of juice of the ripe fruit, mixed with equal amount of warm water, are given before bed time for five consecutive days from the first day of menses.

13. *Paederia foetida* L. (Rubiaceae), Bhadailota (A), Doukhi-bondung (D), Thabai (K), Paduri-lok (M), Pashum (R), Thau-khut-man (T).

In swelling of uterus about three teaspoonfuls of the decoction of the shoot with root of *Musa bulbisiana* Colla and leaves of *Cyclosorus extensus* (131.) H. Ito are given once a day for fifteen consecutive days.

14. *Plumbago zeylanica* L. (Plumbaginaceae) Agiachit (A), Radan-phang (B), Rallungbu (D), Hon-jiaring (K), Agiasi (M), Blok-phang (T).

For contraction of uterus after child birth about three teaspoonfuls of the decoction of the leaves and shoots are given twice daily for ten consecutive days.

15. *Ricinus communis* L. (Euphorbiaceae), Ara (A), Inki-an (K), Era (M), Kharanda (R), Tun-khrang (T).

In painful menstruation two or three leaves are heated over open fire after smearing them with mustard oil and placed over pelvis. This relieves the

pain and free menstruation follows. The leaves are to be kept warm by changing them after a short intervals.

For irregular menses about five teaspoonfuls of the decoction of the leaves are given in empty stomach in the early morning for fifteen consecutive days.

16. *Sida cordifolia* L. (Malvaceae), Sonborolia (A), Theng-khelu (D), Theng-prating (M), Kra-khat-chai (T).

In excessive menstrual flow paste of the shoots with black pepper in equal parts by weight is made into pills of about 5 g each and are given thrice daily for fifteen consecutive days from the first day of menses.

17. *Solanum melongena* L. (Solanaceae), Kharua-bengena (A), Mapi (K), Oken (M), Mak-khra (T)•

In delayed removal of placenta after child birth one teaspoonful of the paste of the flower is given.

## RESULTS AND DISCUSSION

The study yields a total number of 13 species distributed in 13 genera and 10 families for child diseases, and 19 species distributed in 19 genera and 17 families for woman disease. The study also identified 11 types of diseases of children and 15 types of diseases of woman.

All the medicinal uses of plants recorded in this study are not known for their uses for child and woman diseases. Some of the plants viz. *Achyranthes aspera*, *Acorns calamus*, *Alstonia scholaris*, *Andrographis paniculata*, *Asparagus racemosus*, *Cissampelos pareira*, *Datura metel*, *Justicia adhatoda*, *Paederia foetida*, *Ricinus communis* and *Woodfordia fruticosa* are well known medicinal plants<sup>8-10</sup> and their uses in other than child and woman diseases are known in traditional systems of Indian medicine.

In this study it is tried to record the approximate dose used. The methods of application are juice, paste, decoction and powder. The juice of the plant or plant part is prepared by crushing with small amount of water. The crushed plant or plant part is put in a thin cloth and then squeezed to get the juice. Pastes are prepared by grinding and crushing the plants or plant parts with some water. Decoctions are usually obtained by boiling the plants or plant parts in water. The amount of plant material(s) used for preparation of a recipe is approximately specified and likewise the dose is specified with the help of teaspoon or by approximate weight. In conclusion, it can be said that it is of prime importance to record the native plant remedies in our search for new and potent remedies.

Acknowledgements. The author is thankful to Prof C.M. Sarma, Head of the Department of Botany, Gauhati University for his kind interest and his valuable suggestions and to Mr. P Gogoi for his assistance in field works. Thanks are also due to the members of the ethnic groups for their cooperation and help during this study.

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