

## Traditional remedies of Joint diseases in Assam

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Occurrence of various joint diseases among rural people is a common problem. Even after the use of modern medicines afflicted people suffer a lot due to the recurrence; majority of the rural people have deep belief and rely, and approach for traditional remedies. The present investigation provides information of traditional herbal recipes using 28 plant species belonging to 26 genera and 22 families in treating various joint diseases by different ethnic groups of Assam, which deserve further studies for harnessing.

**Keywords:** Traditional medicine; Joint diseases; Assam

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The nature's treasure have a deep rooted tradition of use of herbs by the people of Assam from the dawn to dust for their sustenance including healthcare needs since time immemorial, more particularly the aboriginals. With the advancement of Science and Technology, changing of habitats and environment, use / importance and trend of folk medicine is steadily waning out in general, but its significance and importance is still alive in rural and remote corners, where people are still by and large dependent on traditional medicines as the first line of defense for various ailments. People of rural and remote areas, in general, depend on the local traditional medicine at the primary state, and seek modern medical treatment only when the traditional medicines fail, because of their faith, reliability and efficacy of the traditional medicine. In fact, the rural people suffered from various joint diseases, which are group of syndromes relating to connective tissue and are usually manifested with pain, or stiffness, or swelling of muscles and joints like rheumatism, gout, arthritis, etc. and for which they usually approach the local medicine men for traditional remedies instead of going for modern medicines. There also exist a good number of traditional medicine men and crude drug dealers, especially for joint diseases, roaming in courtyards and local village markets of different areas of the state, which still enjoy some popularity and

reputation among different ethnic societies, even today in the crowd of modern medicines. Though several reports of ethnobotanical studies on medicinal plants of Assam have been appeared during recent years, only a few of these reports mentioned some information on this aspect<sup>1-6</sup>. No comprehensive work on this aspect has so far been noticed from Assam. Hence, in the present communication, the authors aim to explore the traditional medical lore of joint diseases from the state.

### Methodology

The present paper deals with herbal preparations used for various joint diseases by traditional curers of different ethnic groups of Assam. Field studies were conducted to collect various information of uses of herbal medicines following the methodology as laid down by Jain<sup>7</sup>. Field visits were made along with local medicine men to identify the plant species in the field and to know their local names. The data collected were further verified and cross checked in different villages with other local traditional medicine men. Voucher specimens of all plants dealt with were collected along with relevant information, and deposited in the Herbarium of Botany Department, Gauhati University, Guwahati.

### Ethnomedicinal observation and enumeration

The observations made, and collected ethnomedicinal information and uses during ethnobotanical field studies

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are presented as prescriptions with botanical names of the plants arranged alphabetically, followed by their families in parentheses and local names in Assamese.

*Acorus calamus* L. (Araceae); Local name: *Boch*.

Rhizome crushed with seed of *Holarrhena pubescens* Wall., root of each of *Plumbago zeylanica* L., *Coptis teeta* Wall., *Stephania glandulifera* Miers. and *Tinospora cordifolia* Miers. in equal parts, dried and made into powder, and is given with lukewarm water in rheumatism (two teaspoonfuls, once or twice daily for a fortnight or till cure). Oil mixed with leaf juice of *Paderia scandens* (Lour.) Merr. and castor oil in equal parts is used for massage in rheumatism (regular use for a long period is advised). Leaves crushed with root of each of *Plumbago zeylanica* L., *Coptis teeta* Wall., *Justicia gendarussa* L., *Tinospora cordifolia* Miers. and *Cissampelos pareira* L. and seeds of *Holarrhena pubescens* in equal parts, dried and made into powder and is given in gout rheumatism (about 3gm mixed in with warm water, twice daily).

*Allium sativum* L. (Liliaceae); Local name: *Naharu*.

Four to five cloves are crushed with rhizome of *Zingiber officinale* Rosc. and decoction of leaves of *Vitex negundo* L., mixed with castor oil and is given to massage in backache. Cloves paste with root of *Heliotropium indicum* L., rhizome of *Acorus calamus* L. and root of *Coix lachryma-jobi* L. in equal parts and castor oil is used as poultice and then fomented with common salt in lumbago.

*Ananas comosus* (L.) Mer. (Bromeliaceae); Local name: *Anaros, Mati-kothal*.

Roots pounded with root of each of *Oxyceros longiflora* (Lamk.) Yamazaki, and *Jatropha gossipifolia* L., bark of *Moringa oleifera* Lamk., and soil from white ant-hill in equal parts, made into paste and is applied as poultice in gout and rheumatism.

*Bambusa balcooa* Roxb. (Poaceae); Local name : *Bhaluka banh*.

Shoots ground, fermented and mixed with common salt and chili is given in sprain (three spoonfuls, twice daily).

*Brassica nigra* (L.) Koch. (Brassicaceae); Local name: *Sariah*.

Seed oil mixed with that of *Ricinus communis* L. and root powder of *Moringa oleifera* Lamk. in equal parts is used as massage in rheumatism.

*Cissus quadrangularis* L. (Vitaceae); Local name: *Harjora lata*.

Stem pounded with root of each of *Datura stramonium* L., *Girardinia diversifolia* (Link.) Fries. and *Zanthoxylum nitidum* (Roxb.) DC., black cummin, cardamom, rhizome of *Zingiber zerumbet* (L.) Sm., and bark of *Crataeva magna* (Lour.) DC. in equal parts, made into pills of about 5 gm each are given in rheumatism (two pills, mixed with jaggery, twice daily for a month). Stems after removing the bark, dried and powdered, then pounded with seed of *Lens culinaris* Medic. soaked in water in 1:2 ratio and fried in the oil of *Sesamum orientale* L., made into pills of about 5 gm each, which are given in rheumatism (two pills, twice daily for a month). Stems crushed with tuber of *Stephania glandulifera* Miers., bark of *Crataeva magna* (Lour.) DC., root of each of *Zanthoxylum nitidum* (Roxb.) DC., *Typha elephantina* Roxb. and *Girardinia diversifolia* (Link.) Fries., rhizome of *Zingiber cassumunar* Roxb., black pepper and long pepper in equal parts made into powder and given in gout and rheumatism (one teaspoonful mixed with one teaspoonful of flour of parched rice, once daily for three weeks). Stems pounded, dried and powdered with root of *Typha elephantina* Roxb., *Zanthoxylum nitidum* (Roxb.) DC., *Datura metel* L., and *Girardinia diversifolia* (Link.) Fries, tuber of *Stephania glandulifera* Miers., bark of *Crataeva magna* (Lour.) DC., rhizome of *Zingiber zerumbet* (L.) Sm., fruit of *Myristica fragrans* Houtt., black pepper, long pepper, clove, black cummin, coriander and fennel in equal parts and given in rheumatism (about 5 gm with flour of parched rice, twice daily for a month).

*Citrus limon* (L.) Burm.f. (Rutaceae); Local name: *Kaji Nemu*.

Seed poultice made with tubers of *Cyperus rotundus* L. is applied on inflammation of joints.

*Curcuma caesia* Roxb. (Zingiberaceae); Local name: *Kola Halodhi*.

Rhizome made into paste with ash of fruit bark of *Musa bulbisiana* Colla and is applied to gout.

*Curcuma longa* L. (Zingiberaceae); Local name: *Halodhi*.

Juice of rhizome is given orally in rheumatism (20 ml, twice daily for a considerable time).

*Erythrina stricta* Roxb. (Fabaceae); Local name: *Ronga Modar*.

Root paste is applied on gout. Root juice is given in gout (two teaspoonfuls with 125 ml of cow's milk, twice daily for three weeks).

*Euphorbia ligularia* Roxb. (Euphorbiaceae); Local name: *Siju*.

Leaf juice mixed with castor oil is used as massage in rheumatism (twice daily for a long time).

*Girardinia diversifolia* (Link.) Fries (Urticaceae); Local name: *Saru Chorat*.

Few pieces of root, each about 3cm long, are tied on waist as amulet in rheumatism.

*Gossypium herbaceum* L. (Malvaceae); Local name: *Kopah*.

Poultice of leaves mixed with its seed oil is applied as anti-inflammatory in rheumatism and gout (thrice daily for a week).

*Hemidesmus indicus* R.Br. (Asclepiadaceae); Local name: *Anantamul*.

Root juice or decoction is given as blood purifier in rheumatism (about three teaspoonfuls, once daily in the morning).

*Holarrhena pubescens* (Buch-Ham) Wall. ex G. Don. (Apocynaceae); Local name: *Dudhkuri*.

Fruit bark pounded and mixed with oil of *Sesamum orientale* L. and is used as massage in rheumatic pain.

*Jatropha curcas* L. (Euphorbiaceae); Local name: *Bhot-Era*.

Poultice of roots is applied to gout.

*Jatropha gossipifolia* L. (Euphorbiaceae); Local name: *Ronga Bhot-Era*.

Leaf paste is applied to sprain and rheumatic pain.

*Moringa oleifera* Lamk. (Moringaceae); Local name: *Sajina*.

Seed oil is used for massaging in rheumatic pain. Roasted paste of seeds is applied on painful joints as massage.

*Natsiatum herpaticum* Buch.-Ham. ex Arn. (Icacinaeae); Local name: *Khahkhahia-lota*.

Fresh leaves crushed on palm with a pinch of common salt and is applied to backache (once daily, in the afternoon for three days).

*Paderia scandens* (Lour.) Merr. (Rubiaceae); Local name: *Bhedai-lota*.

Paste of leaves or lukewarm juice is used as massage for rheumatism. Leaf Juice mixed with seed powder of *Ricinus communis* L. is given in rheumatism (juice three teaspoonfuls, seed powder about 3gm with about 125ml of cow's milk, once daily for three weeks).

*Phlogacanthus tubiflorus* Nees (Acanthaceae); Local name: *Ronga Bahak*.

Flowers are eaten in curries in rheumatism.

*Pongamia pinnata* (L.) Piewe (Lamk.) Bennet (Fabaceae); Local name: *Koroch*.

Seed oil is used for massaging in rheumatic pain.

*Ricinus communis* L. (Euphorbiaceae); Local name: *Era-gach*.

Leaf paste mixed with warm mustard oil is used for massage for inflammation of joints and sprain. Leaf paste mixed with warm seed oil is used for massage in rheumatic pain. Seed oil is used for massage in rheumatism.

*Schrebera swietenioides* Roxb. (Oleaceae); Local name: *Ghanta karna*.

Poultice of roots is applied on gout.

*Sesbania grandiflora* (L.) Pers. (Fabaceae); Local name: *Bok phul*.

Leaf paste is applied to sprain.

*Solanum nigrum* L. (Solanaceae); Local name: *Pok-mou*.

Juice or paste of shoots is applied in rheumatic pain.

*Sterculia villosa* Roxb. (Sterculiaceae); Local name: *Odal*.

String made of the stem bark is tied as belt on waist in lumbago.

*Vitex negundo* L. (Verbenaceae); Local name: *Pochatia*.

Decoction of leaves with rhizome of *Zingiber officinale* Rosc. is given in rheumatic pain (four teaspoonfuls, twice daily for a month). Poultice of leaves is applied to gout and rheumatism. Decoction of leaves mixed with castor oil is used for massage in backache. Handful of leaves are crushed and used for dry fomentation in gout, sciatica, rheumatic pain and to cure the body pain of women after child birth.

### Discussion and Conclusion

Various joint diseases are common ailments among different population of Assam since long. Though modern medical system is well designed to treat or prevent these, due to some unknown reasons the recurrence also very common. This is one of the reasons for preferred traditional medicine in treating joint diseases in addition to their deep rooted tradition and belief of local traditional medicine by the ethnic groups of the state. The present study reveals a total of 28 plant species belonging to 26 genera and 22 families used for preparing recipes for the treatment of various joint diseases like rheumatism, gout, arthritis, lumbago, sciatica; some of which are very effective as claimed by local medicine men and even by some patients. The authors spent a great deal of time for procuring some rare and hitherto family secret knowledge of traditional remedies, and which are only being transmitted hereditarily from one generation to another within the family members of local medicine men. Holistic effort is therefore required to divulge this lore and there after proper scientific analysis to harness this wealth of traditional knowledge of ethnic people for the welfare of posterity.

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