

Ethnomedicinal Sources Combating Rheumatism As Gleaned From Herbal Vendors In Aurangabad and Jalna Districts Of Maharashtra (India)

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ABSTRACT: *The present study deals with the ethnomedicinal claims suggested by herbal vendors on arthritis from Aurangabad and Jalna districts of Maharashtra. The investigators accrued information during the year 2014-2017. The information is collected from vendors and Vaidus who check and treat the patients by advising ethnomedicines in the form of tablets, paste, powder, extract, 'churna', decoction, etc. Various plant parts such as roots, tubers, rhizomes, stems, leaves, flowers and fruits are employed to prepare the said recipes. Total 21 plant species belonging to 21 genera and 15 families are being reported in the treatment of arthritis. Apart from principal drug source, supplementary plant species (14) are also part of these recipes. The information regarding plant species, plant products, recipe, vernacular names, family, etc., is provided after careful investigation. These may be verified on modern scientific lines.*

Key Words: : Ethnomedicine, Arthritis Vendors, Aurangabad, Jalna Districts.

Introduction:

About 15% people (over 180 million) in India are suffering from rheumatoid arthritis causing chronic inflammation of the joints. Rheumatoid arthritis is a disease that causes pain, swelling and stiffness in joints of a sufferer. Arthritis is more common in women and in elder people. The herbal vendors and Vaidus (local doctors) are well acknowledged traditionally with various recipes and their plant sources. Mixture of more than one plant sources and other domestic ingredients are used to cure various diseases. Vendors are having knowledge of making various medicines in the form of powder, 'churna', oils, decoction, and tablets. Generally, they advise to prepare them by the sufferers. The ethnomedicinal knowledge of herbal vendors play an important role in scientific research. Further research on scientific lines is obviously needed to authenticate the bio-resources.

Methodology:

Surveys on ethno-medicinal wisdom of herbal vendors are conducted during 2014-2017 to collect information from Aurangabad and Jalna districts of Maharashtra. The Aurangabad district is located between 19° and 20° north longitude and 74° and 76° east longitude covers an area of 10, 100 km². Aurangabad district is located mainly in the Godavari river basin and partly in the Tapi river basin. The Jalna district is located east of Aurangabad between 19.8410°N and 75.8864°E. It has an average elevation of 508m (1,667ft), on the bank of the Kundalika river. (Maps-I and IV). The vendors carry on their business on public or common places e.g. Places of pilgrims, near bus-stands, railway stations, cross roads, highways, weekly bazaars (hats) market yards, near temples, etc. Regular visits are paid to gather the information by interviewing them by repeated queries to authenticate their claims. Plant/drug samples are purchased to identify them scientifically by using district, state, regional and national floras (Cooke 1958; Lakshaminarsimhan and Sharma 1991; Naik, 1998; Pradhan and Singh 1999; Patil, 2003; Kshirsagar and Patil, 2008). The plant species have been arranged alphabetically.



Map I India Showing Map State of Maharashtra



Map II Maharashtra showing Aurangabad and Jalna Districts in Maharashtra



Map III Jalna District



Map IV Aurangabad District

Enumeration:**1) *Abrus precatorius* Linn. (Fabaceae):**

L.N. : Gunj.

a) Root paste is applied on swollen joints against gout.

b) Seed powder, 1-2gm, is mixed with a pinch of turmeric powder, camphor and nutmeg in equal ratio. Paste is prepared and applied on joints to get relief from joint pains.

2) *Adansonia digitata* L. (Bombaceae):

L.N.: Gorakh chinch

Seed coat is removed and paste is prepared. This paste is applied on joints to cure joint pains.

3) *Allium sativum* Linn. (Liliaceae):

L.N. : Lasun

a) Infusion of cloves 1-2ml with Sisam (*Dalbergia sissoo* Roxb. ex DC.) seed oil (1-2ml) and a pinch of black salt. It is administered orally twice a day to treat rheumatism.b) Infusion of cloves of jamun [*Syzgium cumini* (L.) Skeels], extract 1-2gm of Ale (*Zinziber officinale* Rosc.) and stem powder of Nirgudi (*Vitex negundo* L.) are added in a cup of water and boiled. This decoction is administered orally against rheumatism.**4) *Brassica juncea* L. (Brassicaceae):**

L.N. : Rai, Mohari

Seed paste, 1-2gm and 1gm camphor is useful to massage body to get relief from joints pains.

5) *Butea monosperma* (Lamk.) Taub. (Fabaceae):

L.N.: Palas

a) Dried flowers are ground and one spoonful is advised with water, twice a day for about one month, to treat rheumatism.

b) Paste of seeds, 1-2 gm, mixed with one teaspoon honey is smeared on joints to reduce pains.

6) *Caesalpinia bonduc* (L.) Roxb. (Fabaceae):

L.N. : Sagargoti

a) Fruits are boiled in coconut oil (*Cocos nucifera* L.) and Turmeric (*Curcuma longa* L.) Mace (Javetri) (*Myristica fragrans* Houtt.) are added in it. This mixture is smeared on joints to check joint pains.

7) *Cassia fistula* L. (Fabaceae):

L.N.: Amaltas, Bahava

a) Roots are boiled in 250 ml of milk and drunk after cooling against gout.

b) Paste of leaves is smeared on joints against joint pains.

8) *Cocculus hirsutus* (Linn.)Diels. (Menispermaceae):

L.N.: Vasanvel.

a) Roots (5gm) are boiled with goat's milk (50ml.) and then filtered. About 500mg Pimpli (*Piper longum* L.) and 500 mg. Sunth (*Zinziber officinale* Rosc.) and 500 mg. Kali-miri (*Piper nigrum* L.) is given to rheumatoid person for about one month.

9) *Cuscuta chinensis* Lamk. (Cuscutaceae):

L.N.: Amarvel

Paste of entire plant is mixed with ant-hill soil and Sunth (*Zinziber officinale* Rosc.)

This paste is smeared on swollen part of hands and legs.

10) *Cyperus rotundus* L. (Cyperaceae):

L.N.: Nagarmotha, Motha.

Paste of rhizome is applied on joints to treat joint pains.

11) *Eulophia nuda* Lindl. (Orchidaceae):

L.N.: Amarkand.

Rhizome extract diluted in a glass of water, daily in morning, is advised for one month against rheumatism.

12) *Gloriosa superba* Linn. (Liliaceae):

L.N.: Kallavi.

Root powder 1-2gm with equal quantity of stem powder of Guggul [*Commiphora wightii* (Arn.)Bhandari] and Gulvel [*Tinospora cordifolia* (Willd.) Miers], fruit powder of Behada [*Terminalia bellirica* (Gaertn.) Roxb.], Hirda (*Terminalia chebula* Retz.) and Avala (*Phyllanthus emblica* L.) and a pinch of Ioha bhasma (Iron ash), one lemon juice [*Citrus limon* (L.)Burm. f.] all are mixed thoroughly and tablets are prepared. These are advised for one month to treat rheumatism.

13) *Justicia adhatoda* L. (Acanthaceae):

L.N.: Adulsa

Decoction of leaves (1/2 cup) and add one tea spoon seed oil of Sisam (*Dalbergia sissoo* Roxb. ex DC.) is massaged on joints against joint pains.

14) *Ocimum basilicum* Linn. (Lamiaceae):

L.N.: Sabja

Decoction of leaves, 15-30 ml, is added with 1gm dry Ginger powder (*Zinziber officinale* Rosc.) and 500 mg Kali mire (*Piper nigrum* L.) This is advised to treat rheumatism.

15) *Phyllanthus emblica* Linn. (Euphorbiaceae):

L.N.: Avala

Decoction of Avala fruits (20gm) with jaggery (20 gm) is boiled in water. It is advised early in morning and evening against gout. Consumption of common salt is avoided during treatment.

16) *Ricinus cummunis* Linn. (Euphorbiaceae):

L.N.: Erand

a) Castor oil (10ml) with a cup of milk is helpful for arthritis.

b) Paste of seeds is applied on joints to get relief from joint pains.

17) *Sphaeranthus indicus* Linn. (Asteraceae):

L.N.: Gorakhmundi

Decoction (10-20 ml) of Awala (*Phyllanthus emblica* L.) Turmeric (*Curcuma longa* L.) and rhizome powder of Motha (*Cyperus rotundus* L.) is prepared. About two teaspoon honey is added. This is advised, thrice a day, to treat gout.

18) *Syzygium aromaticum* (Linn.) Merr. & Perry (Myrtaceae):

L.N.: Lavang

Paste of cloves with luke water is applied topically. Clove oil is also applied on it to treat rheumatism.

19) *Vitex negundo* Linn. (Verbenaceae):

L.N.: Nirgudi

Decoction of roots (10-20 ml) is advised, twice a day, against joint pains.

20) *Withania somnifera* (L.)Dunal (Solanaceae):

L.N.: Ashwagandha

a) Root powder (one tea spoonful) is taken with water, for about 20-30 days, against rheumatism.

b) Root powder (3 gm) with ghee and sugar (1gm) is given twice a day against rheumatism.

21) *Zinziber officinale* Rosc. (Zingiberaceae):

L.N.: Adrak

a) Rhizome and equal quantity of Pimpli (*Piper longum* L.) is used to prepare decoction. About 20 ml of it is advised, twice, a day, to treat rheumatism.

Results and Discussions:

During our investigation on ethnomedicinal sources from vendors in Aurangabad and Jalna districts (Maharashtra) are recorded 21 plant species belonging 21 genera and 15 families of angiosperms, majority of which are dicotyledons (17), whereas monocotyledons are represented by (04) species. Their habit categorisation is as: trees (04), shrubs (03), herbs (06), climbers, lianas (03) and geophytes (05). The vendors advise to prepare various medicinal recipes or also give sometimes prepared recipes. These are usually in the form of powder, paste, decoction, extract, tablets, 'churna', etc. Common form of recipe is paste. While preparing these recipes, some additional plant species (15) are also supplemented. These are: *Commiphora wightii* (Arn.) Bhandari, *Cocos nucifera* L., *Citrus limon* (L.) Burm.f., *Curcuma longa* L., *Cyperus rotundus* L., *Dalbergia sissoo* Roxb. ex DC., *Myristica fragrans* Houtt. *Piper longum* L., *Piper nigrum* L. *Phyllanthus emblica* L. *Syzygium cumini* (L.) Skeels, *Tinospora cordifolia* (Willd.) Miers., *Terminalia bellirica* (Gaertn.) Roxb., *Terminalia chebula* Retz. and *Vitex negundo* L. Likewise, some domestic substances are also added in them, for example, coconut oil, clove oil, camphor, loha-bhasma, black salt, ant-hill soil, honey, milk, ghee, jaggery and sugar. Rheumatic complaints naturally cause pains and swellings on joints. To reduce these sufferings, these plant species are reported very beneficial. The vendors are informants as well as drug-providers. They conduct their business traditionally on public places near bus-stands, highways, railway stations, court yards, Government offices, cross-roads, temples, bazaar locality, etc. The people in these districts still have deep faith in their advise and follow them carefully. The investigators presented only ethnomedicinal plants for treating rheumatic complaints in the region. This is a part of our investigations, other treatments are also being communicated separately. The drug sources have been critically deciphered. These obviously should be further investigated on modern scientific lines viz., chemical and biological testing, clinical trials, etc. These may add new sources of medicine or ever new molecules if subjected for further research.

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