Folk remedies against rheumatic disorders in Jalgaon district, Maharashtra

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The paper deals with 26 species of angiosperms belonging to 20 families employed against rheumatic disorders by aboriginal and rural folks of Jalgaon district. The folkloric information about their vernacular names, plant product or parts used, form of application and method of administration, etc. are gathered. The data accrued is compared with the available literature. Eight plants species are new reports to treat rheumatism. Three other plant species are described in other parts of India but different plant parts are used. Further research on modern scientific line is necessary to improvise their efficacy, safety and validation of the traditional knowledge.

Keywords: Folk remedies, Rheumatism, Jalgaon district, Ethnomedicine, Medicinal plants

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Jalgaon, formerly known as East Khandesh, is situated at northern border of state of Maharashtra. It lies between 20° and 21° North latitude and 74°.55′ and 76°.28′ East longitude. It stretches nearly 128 km. along the Tapi river and varies from 112-144 km. It forms distinct topographical unit separated from neighbouring state of Madhya Pradesh by Satpura mountain on North and Satmala hill ranges on South. An arc of extended ranges of western Ghat stretches in the easterly direction. The district lies in the northern section of Deccan plateau. Apart from rural populace, the tribes such as Pawara, Bhil, Konkani, Tadvi and Vanjari inhabit the district. The main occupation of the district is agriculture. Though the area has been scanned ethnobotanically the literature on the rheumatism is scattered. The paper communicates the ethnomedicinal plants used especially for rheumatic disorders by the tribals of Jalgaon district.

Methodology

Investigations were carried out during 1997-2003 in several tribal hamlets and rural parts in Jalgaon district. The information was tapped by interviewing repeatedly the tribal people, their medicine men, witchdoctors, elder men and women. They were crosschecked regularly. Each claim was verified at least 5-6 times. The tribal and rural names of plants and doses of administration have been documented. Plant specimens were collected and voucher specimens have been identified using related literature and housed in the Herbarium, Department of Botany, Pratap College, and Amalner. The plants are enumerated alphabetically giving plant name, family and local names. New reports are asterisked.

Enumeration

*Abutilon indicum* (L.) Sw. (Malvaceae), *Mudra, Atti*

Leaf paste is mixed in sesamum oil is applied on joints. Leaves have been recorded earlier useful against rheumatism.

*Adhatoda zeylanica* Medic. (Acanthaceae), *Adulsa*

Stem bark and leaves of *Neem* are cooked and the paste is applied on the rheumatic joints for relief. Leaves are reported beneficial against rheumatic pain.

*Allium sativum* Linn. (Liliaceae), *Lasun, Losan*

Bulblets are fried with groundnut oil and consumed with bread. This minimizes rheumatic pain. Bulblets with rock salt are applied and massaged on swollen muscle to reduce pain. Bulblets have been reported to be useful in rheumatism.

*Anisomeles indica* (Linn.) Ktze (Lamiaceae), *Rantil*

A half glass of decoction of plant is given at morning and evening.

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Argemone mexicana Linn. (Papaveraceae), Piwla Dhotra, Vilayati Dhotra
A glass of leaf juice is homogenized with black pepper (Piper nigrum L.) A spoonful of this mixture is administered daily for a fortnight.

Benincasa hispida (Thunb.) Cogn. (Cucurbitaceae), Kohla
Pulp of this fruit mixed with equal quantity of sugar is boiled, after cooling it is consumed every morning for rheumatism.

Boswelzia serrata Roxb. (Burseraceae), Salai guggul
Stem bark paste and gum are applied for rheumatism and muscular pain. Seeds are reported useful in treating rheumatism.

Brassica juncea Czern. st. Coss. (Brassicaceae), Mohri, Rai
Seed powder paste in warm sesame oil is applied on knees for arthritis. Seeds are reported useful in treating rheumatism.

Calotropis procera (Ait.) R. Br. (Asclepiadaceae), Ruchkin, Rui
Warm leaf paste is applied on rheumatic joints to reduce pain. Latex is also reported to be useful.

Capparis zeylanica L. (Capparidaceae), Jakhambel, Wagati
Roots and bark paste are applied together on rheumatic swelling of joints. Similar use is reported from other parts of India.

Cassia tora L. (Caesalpiniaceae), Tarota
Leaf paste is applied locally on joints to minimize the rheumatic pain. Leaves have also been reported to be useful.

Cissampelos pariera L. var hirsuta Forman (Menispermaceae), Pahadvel
Paste of leaves is applied on joints for rheumatism.

Cleome gynandra L. (Capparidaceae), Pandhari Tilwan
Leaf paste is applied on the joints for arthritis. Leaves are reported to treat rheumatism specially arthritis.

Cocos nucifera L. (Areaceae), Naral, Shripal
Paste of fresh kernal mixed with turmeric powder is applied on joints to reduce swellings and pain.

Corchorus depressus (L.) C. Chr. (Tiliaceae), Haran Khuri
Leaf and root paste is applied on joints for rheumatism.

Cymbopogon martini (Roxb.) Wats. (Poaceae), Roshagawat
Oily extract obtained from the leaves is applied on knees for rheumatic pain. The plant is reported useful for rheumatic disorders.

Echinops echinatus Roxb. (Asteraceae), Udkata
Root paste is applied on joints for rheumatic swellings.

Erythrina variegata L. (Fabaceae), Pangara
Leaf paste is applied locally on rheumatic swellings. Bark is reportedly used to treat rheumatism.

Euphorbia tirucalli L. (Euphorbiaceae), Thorya, Thor
Latex is warmed and then applied topically on knees for rheumatic swelling till cure. Latex is reported for treating rheumatism.

Ficus benghalensis L. (Moraceae), Wat, Wad
Latex is applied locally on joints to reduce pain. Latex is reported useful in treating rheumatism.

Jatropha curcas L. (Euphorbiaceae), Erand, Mogli Erand
Seed oil is massaged in case of arthritis. Seed oil is reported useful for rheumatic complaints.

Lablab purpureus (L.) SW. (Fabaceae), Wal
Two spoonful of leaf juice mixed with milk is taken internally regularly twice a day to cure arthritis.

Mitragyna parvifolia (Roxb.) Korth. (Rubiaceae), Kadam, Jangali-hirmundi
Leaves are applied as poultice on rheumatic swellings.

Pongamia pinnata Pierre (Fabaceae), Karanaj
Seed oil is locally applied on rheumatic joints. Seed oil is reported useful for treating rheumatism.

Semecarpus anacardium L.f. (Anacardiaceae), Bhilwa, Biba
To get relief from rheumatic pain, seed oil is applied on knee joints. Seed oil is reported beneficial against rheumatism.
Five-six seeds are taken with jaggery every morning for rheumatism. Seeds are also reported useful to treat rheumatism18.

Discussion
Rheumatoid arthritis is a disease caused due to the chronic inflammation for synovial lining of joints, the synovium becomes thick leading to development of swelling around joints and tendons. The characteristic symptoms are the pain and stiffness of joints. The chronic inflammation occurs due to the continuous production of auto-antibodies called rheumatoid arthritis factor. This is a common disease and complaints are received from all ages. To treat it, local medicine men have traditional remedies. The present ethnobotanical surveys revealed as many as 26 plant species employed to alleviate it. Various parts of plants like roots, bulb lets, leaves, stem-bark, fruits, seeds, latex or even entire plants are used in the form of paste, decoction, juice, powder, oil, poultice, etc. The method of application and administration varied from patient to patient depending upon the intensity of the complaints. They are both used as external application or administered internally.

Tribals and rural folks in this district continue to depend on traditional medicinal plants for relief from illness and sufferings, and the information is passed orally to generations. Out of 26 plant species, 8 species are being reported for the first time from India useful against rheumatic complaints. Taxa such as *Adhatoda zeylanica*, *Calatropis procera*, and *Erythrina variegata* have been documented in literature, however, the paste used were found to be different in the present survey. On account of urbanization, industrialization, deforestation and acculturation, this treasure is depleting fast. These claims need further research employing modern techniques and methods.

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