

## HERBAL TREATMENT OF RHEUMATISM IN CHITRAKOOT AREA OF SATNA DISTRICT (M.P.)

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### ABSTRACT

Ayurvedic medicine is one of the world's oldest holistic healing systems. There is a need to explore and record the medicinal plants used in the treatment of rheumatism. In this study 14 species belonging to 9 families were found effective in curing rheumatism in Chitrakoot area of Satna district (M.P.). Mode of application of these has been provided in most the cases.

**KEYWORDS:** Ayurveda, Medicinal plants, Rheumatism Chitrakoot area of Satna

The term rheumatism is a loosely used layperson term to describe rheumatoid arthritis. The rheumatoid disorders include those affecting muscles joints and bones. They are common and have a huge impact on health of a vast population worldwide. Normally your immune system helps protect your body from infection and disease. In rheumatoid arthritis your immune system attacks healthy tissues in your joints. Rheumatism includes the following main diseases. (a) Osteoarthritis is a degenerative condition that affects the entire joint including bone, cartilage, ligament and muscles. Osteoarthritis can develop at any age, but it tends to be more prevalent in those aged over 40 and people who have joint injuries. (b) Rheumatoid arthritis is a chronic inflammatory disorder affecting many joints including those in hands and feet. In rheumatoid arthritis the body's immune system attacks its own tissue including joints. In severe cases it attacks internal organs. (c) Gout is a common and complex form of arthritis that can affect anyone. It is characterised by sudden, severe attacks of pain, swelling, redness and tenderness in one or more joints, most often in the big toe.

Ayurvedic medicine is one of the world's oldest holistic healing systems. It was developed more than 3000 years ago in India. Ayurvedic literature contains intelligent observations on human diseases (Cragg *et al.*, 1996; Hallock *et al.*, 1998; Das *et al.*, 2001). Herbal medicines have great potential and are being extensively used in curing various human ailments.

In view of the above facts a survey of Chitrakoot area of Satna district (M.P.) was carried out. The plants of claimed medicinal value, used in rheumatism treatment were identified and recorded. In doing so much emphasis was given to contact the tribals of the area: Mawasi, Kol, and Gond besides knowledgeable people of the area were also consulted.

### MATERIALS AND METHODS

The Chitrakoot area is situated in the northern region of Satna district of M.P. It extends from 80° 52' to 80° 73' N latitude and 25° 10' to 25° 52' E longitude and cover an area of 1,584 square Km. The forest of the Chitrakoot predominantly consists of tropical dry mixed deciduous type. The climate is dry and the maximum temperature goes up to 50.5°C in the month of May and minimum up to 5°C in the month of January. The Chitrakoot area of Satna is surrounded on north, northwest and northeast by Chitrakoot district of Uttar Pradesh and west by Panna district of Madhya Pradesh.

The present study is based on more than two years of work during which knowledge about plants and their efficacious properties in curing rheumatism were gathered. During the course of collection, plenty of information about the local name(s) and the method of application of medicinally useful plants (especially for rheumatism therapy) were noted down. The collected plants were identified with the help of local Floras (Duthie, 1903-1929; Mudgal *et al.*, 1997; Singh *et al.*, 2001; Verma *et al.*, 1993) as far as possible. The doubtful specimens were further verified and their identity confirmed at NBRI, Lucknow; Central Circle of BSI at Allahabad. Properly mounted specimens are deposited at the Herbarium Department of Botany, Shibli National College, Azamgarh.

### OBSERVATIONS

#### 1. *Acalypha indica* L. (Euphorbiaceae)

**Local Name:** Kuppi.

**Locality:** Titihari Tola (Pathariagarh), Turra, Khokhala (RamNagar)

An erect annual herb. Leaves ovate or rhomboid-ovate, glabrous. Inflorescence axillary. Capsules hispid, seeds

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ovoid. Commonly found in wastelands and along cultivated fields.

**Flowering and Fruiting:** August-September.

**Medicinal Uses:** The decoction of the plant is mixed with jaggery and used in rheumatic complaints.

**2. *Asparagus racemosus* Wild. (Liliaceae).**

**Local Name:** Satawar.

**Locality:** Dewlaha, Mohkamgarha, Barha Mawan

A slender bushy climber with woody prickly branches. Cladodes acicular, triquetrous. Flowers white, scented. Berries globose, scarlet. Commonly found in sal and mixed forests.

**Flowering and Fruiting:** September-January.

**Medicinal Uses:** The tribals of this region use the roots in case of rheumatic complaints.

**Used in Ayurvedic Formulation:** Femiplex, Neo, M2-Tone Ojus, himaplasia, Tentex Geriforte, Lukol, Renalka

**3. *Calotropis gigantea* (L.) R. Br. (Asclepiadaceae).**

**Local Name:** Madar Safed.

**Locality:** Chhota Padaha.

A large shrub. Leaves opposite, sessile or sub-sessile, elliptic-oblong, white pubescent beneath. Flowers white. Follicles paired, recurved. Commonly planted.

**Flowering & Fruiting:** Throughout the year.

**Medicinal Uses:** The leaf and root extract has been used in the treatment of chronic rheumatism. The latex of *Calotropis* and *Euphorbia nerifolia* is applied on the affected joint.

**4. *Calotropis procera* (Ait.) R. Br. (Asclepiadaceae).**

**Local Name:** Ak, Madar.

**Locality:** Kelhaura, Dewlaha.

A perennial shrub. Leaves opposite, ovate-oblong, cordate, acute or sub-mucronate. Follicles recurved, somewhat sausage-shaped. Commonly found in wastelands.

**Flowering & fruiting:** Throughout the year.

**Medicinal Uses:** The latex of the plant is reputed as an efficacious drug for the treatment of rheumatism. The fresh leaves are slightly roasted and made in to a paste, bandaged to painful rheumatic joints and swelling. The root bark is dried, powdered and mixed well with coconut oil and massaged on rheumatic joints.

**5. *Cassia fistula* L. (Caesalpiniaceae).**

**Local Name:** Kirwar, Amaltash.

**Locality:** Mohkamgarha, Kailashpur.

A medium-sized deciduous tree. Leaflets 3-8 pairs, ovate-oblong. Flower bright yellow. Pods many-seeded, ultimately black. Commonly found in mixed forests and also planted as an ornamental along roadsides.

**Flowering & Fruiting:** March-february.

**Medicinal Uses:** The juice or paste serves as a best dressing for inflammation in the hands and feet caused by exposure to cold. The leaves are blood purifier and are effectively used in the treatment of rheumatism.

**Used in Ayurvedic Formulation:** Aragvadhadrsta, Aragvadhadrghrita, Aragvadhadi tel, Agni-kumar churn, Kankayan gutika

**6. *Eulophia herbacea* L. (Orchidaceae)**

**Local Name:** Belarikand, Vansinghara

**Locality:** Sati Anusuiya

A perennial herb, Tubers ovoid, Leaves plicate, linear or elliptic, Flowers greenish white. Occasionally found in forests.

**Flowering and Fruiting:** May-June.

**Medicinal Uses:** Crushed bulb is fried in mustard oil and the oil is applied on rheumatism, twice in a day for 15 days.

**7. *Euphorbia ligularia* Roxb. (Euphorbiaceae)**

**Local Name:** Sehund

**Locality:** Padwaniya Kothar

A large glabrous erect shrub, with pairs of stipular spines on tubercles. Leaves fleshy, obovate, Involucers yellowish. Capsules 3-lobed, lobes compressed. Commonly found along roadsides.

**Flowering and Fruiting:** February-May.

**Medicinal Uses:** Leaves of Sehud, Ak (*Calotropis procera*), Dhatura (*Dhatura metel*), Arand (*Ricinus communis*) and Medaki (*Vitex negundo*) are boiled in mustard oil and the oil is applied on rheumatism, twice in a day for 15 days.

**8. *Jatropha curcas* L. (Euphorbiaceae).**

**Local Name:** Ratan jyoti.

**Locality:** Dewlaha, Barha Mawan.

A large shrub. Leaves long petioled, broadly ovate-cordate. Flowers small, yellowish. Capsules subglobose or ellipsoid. Commonly found along cultivated field and wastelands.

**Flowering & Fruiting:** August-January.

**Medicinal Uses:** Bark extract in water is given in rheumatism, half-cup extract, twice in a day for 10 days.

**9. *Luffa echinata*** Roxb. (Cucurbitaceae)

**Local Name:** Tarmakhar

**Locality:** Bagahi

An annual climber. Leaves 5-angled or deeply lobed. Flowers white. Fruits ovoid, densely covered with bristles. Commonly found in village surroundings.

**Flowering and Fruiting:** September-January.

**Medicinal Uses:** Leaves decoction is given in rheumatism, half-cup decoction twice in a day for one week.

**10. *Ricinus communis*** L. (Euphorbiaceae)

**Local Name:** Andi, Redi, Arand

**Locality:** Tagi

A small tree. Leaves peltate, orbicular, palmatifid, green, often suffused with red. Flowers yellow. Capsules globose, echinate, seeds oblong, smooth, mottled. Commonly cultivated and also found as an escaped.

**Flowering and Fruiting:** January-June.

**Medicinal Uses:** A poultice of castor seeds is applied with beneficial result to gouty and rheumatic swellings. Warm leaf paste along with lemon is applied externally on rheumatic swelling.

**Used in Ayurvedic Formulation:** Erand pak, Erand tel Balarista, Pradrantak lauh, Bishgorbh tel, Cibolic capsules.

**11. *Sphaeranthus indicus*** L. (Asteraceae).

**Local Name:** Gorakhmundi.

**Locality:** Tagi, Malgausa.

A viscous pubescent and strongly scented prostrate herb with winged stems. Leaves obvate-oblancoleate, toothed. Heads compounds, terminal and leaf-opposed, purple-violet. Commonly found in roadside ditches.

**Flowering & Fruiting:** January-June.

**Medicinal Uses:** The decoction of root is used for the treatment of rheumatism.

**12. *Urginea indica*** (Roxb.) Kunth. (Liliceae).

**Local Name:** Jangali piyaz.

**Locality:** Chhota padaha

A scapigerous herb, bulbs globose, ovoid. Leaves radical, simple, linear, flat. Scapes appearing before leaves. Flowers greenish-white with brown streaks. Capsules oblong, coriaceous, 3-quetrous. Abundant in forests.

**Flowering and Fruiting:** March-July

**Medicinal Uses:** The bulb is said to be efficacious in the treatment of rheumatism.

**13. *Vitex negundo*** L. (Verbenaceae)

**Local Name:** Medhaki

**Locality:** Dadin Tola

A shrub, young branches tomentose. Leaves 3-5-foliolate, leaflets petiolulate, elliptic or lanceolate. Flowers white. Drups globose, black. Commonly found along riverbank and roadsides.

**Flowering and Fruiting:** August-November

**Medicinal Uses:** The leaves are warmed gently and bandaged over rheumatic swellings.

**14. *Withania somnifera*** (L.) Dunal (Solanaceae)

**Local Name:** Asgandh

**Locality:** Dadin Tola

A tomentose shrub. Leaves elliptic-ovate. Flowers greenish yellow. Berries orange-red on maturity. Commonly found in wastelands.

**Flowering and Fruiting:** July-December

**Medicinal Uses:** The root is effective in the treatment of the rheumatic effection. A decoction of the root is used with the black pepper (*Piper nigrum*) and honey for this purpose

**Used in Ayurvedic Formulation:** Asbwagandha churn, Ashwa gandha rasayan, Ashwagan dharista, Kamdev ghrit, Chyaranpras, Phalaghrit Mahamash tel, Manoll, M2 tone.

**RESULTS AND DISCUSSION**

During the course of this study data were recorded from local people especially the tribal's and medicine men of the area. A number of field trips spanning over two years were undertaken to collect plants which were considered effective in curing rheumatism. Although use of numerous plant parts such as root, stem,

stem bark, leaves, fruits, seeds etc is very common but the method of application varies among different tribes. A total of 14 Indigenous plant species belonging to 9 families have been recorded. The medicinal plants have been alphabetically arranged with their correct botanical name, family, local name(s), habit, mode of administration and dose(s) and use in ayurvedic formulation. The authentic identification of the botanical source and on the spot verification is of prime importance. Usually this aspect is not given due attention by the workers. Due to over exploitation, habitat modification and environmental stress, a perceptible change is sometimes noticed in the growth patterns and regeneration strategies of plants. According to Tandon *in-situ* conservation of medicinal plants is highly desired along with their habitats (Tandon, 2006). There is need to isolate the active ingredients of these herbs in pure form. It is hoped that the foregoing notes and records will be of help to the plant chemists and pharmacologists.

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## REFERENCES

- Cragg G.M., Simon J.E., Jato and Snader K.M., 1996. Drug discovery and development at the national cancer institute : Potential for New Pharmaceutical Crops. ASHS Press, Arlington, V.A., 554-560.
- Das B., Venkakaiah B. and Das R., 2001. Lidnans : Promising anticancer agent .In : Role of biotechnology in Medicinal and Aromatic Plants. Khan, I.A. and Khanum,A., vol.IV, Ukaaz Publication, Hyderabad, pp. 42-49.
- Duthie J.F., 1903-1929. Flora of Upper Gangetic plain and of the adjacent Siwalik and Sub-Himalayan Tracts. Vol. I-II. Botanical Survey of India, Calcutta.
- Hallock Y.F., Cardillina J.H. 2<sup>nd</sup>., Schaffer M., Bringmann G., Francois G. and Boyd M.R. 1998. Korundamine A, a novel HIV – inhibitory and antimalarial “hybrid” naphthlisoquinoline alkaloid heterodimer from *Anistrocladus korupensis*, Bioorg, Med. Chem. Lett., **8**(13).
- Mudgal V., Khanna K.K. and Hajra P.K., 1997. Flora of Madhya Pradesh Vol. II. Botanical Survey of India, Calcutta.
- Singh N.P., Khanna K.K., Mudgal V. and Dixit R.D., 2001. Flora of Madhya Pradesh Vol. III. Botanical Survey of India, Calcutta.
- Tandon V., 2006. Kurukshetra, **5**(4): 11-13.
- Verma D.M., Balakrishnan N.P. and Dixit R.D., 1993. Flora of Madhya Pradesh Vol. I. Botanical Survey of India, Calcutta.