Some unique herbal remedies against arthritis and rheumatism in daund region pune district (m.s.) india

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Abstract

An extensive field surveys were arranged in Daund taluka to document the ethno-medicinal information regarding the use of wild and endemic ethno-flora against arthritis and rheumatism. The information presented here, is being collected from the local inhabitants through verbal interviews by an informal way during the period from pre-monsoon of 2018 to the post-monsoon of 2020. The paper focuses on the ethno-medicinal uses of 20 plant species belonging to 17 families used for curing arthritis ad rheumatism among the local inhabitants in their routine life.

Keywords: Herbal remedy, Daund, Traditional knowledge.

INTRODUCTION

Human interactions with the surrounding environment, especially plants have started from ancient period due to which the modern medicines have been arrived at the end of 20th century. Being a part and parcel of the nature, man remained busy in utilizing the wild plants for his certain needs and necessities such as food, medicine, fodder, agricultural tools, house construction etc. It has been realized recently that most of the plants were in use by the traditional healers, hakims and ethnic societies of the world either as a food or as herbal drugs in the ancient time. Since the last three to four decades considerable progress has been made in the field of ethno-medicinal remedies due to the recent explorations. Use of these plants and their parts had contributed so much to the field of traditional medicinal science by fulfilling the social and cultural needs of the rural, aboriginal and tribal people. These plants based herbal drugs are affordable, more effective and easily available in the market and are manufactured with the traditional eco-friendly methods. They can work selectively and gently without disturbing the other system as compared to modern synthetic drugs.

Study Area

Daund tahsil lies in Pune district situated on the margin of Bhima river. Daund tahsil consist of 102 villages and one urban centre. Geographically this region extent from 180 18 ' to 180 41' north latitude and 740 07 ' t0 740 51'' east longitude. Geographically area of the study region is 1289.86 Sq.Km. (128986 hector) according to 2011 census. The average height of study area is 554 meters from mean sea level. The river Bhima and its tributary river Mula- Mutha are dominating drainage pattern in study region. The dry mixed deciduous forest pocket covers the board western part of the area. It is a rich ethnofloristic diversity. It has remained inhabited to certain extent by the native inhabitants for certain needs and necessities for curing specific livestock ailments. The collected ethno-botanical information from the inhabitants is documented and spread in nearby areas in order to understand importance of the traditional medicinal knowledge in the life of local inhabitants.

METHODOLOGY

Frequent field visits were arranged in the study areas during the period from pre-monsoon of 2018 to post monsoon of 2020 to collect the ethno-medicinal data on uses of the wild ethno-flora by the local inhabitants. The plant specimens were collected by knowing their vernacular names through the help of knowledgeable informants as per guidelines (Schulte, 1962; Jain, 1989; Alexiades, 1996; Martin, 1995). The information was confirmed through the traditional healers through verbal and informal interviews.

The voucher specimens were prepared, tagged and confirmed by referring the standard floras such as (Cooke, 1967; Almeida, 1996; Pradhan & Singh, 1999). Such plants were dried and mounted on herbarium sheets and preserved as voucher specimens in the Department of Botany, K.G. Katarai College Daund, Pune for future study.

ENUMERATION / RESULT

The taxa enumerated here are arranged alphabetically according to their botanical name with family followed by vernacular name, plant part used and traditional medicinal uses Table 1.

Table 1: Plant part used and traditional medicinal uses.

Sr. No	Botanical Name	Local Name	Part Used	Traditional herbal remedy for Rheumatism and Arthritis cure
1	*Acanthospermum hispidum* (Roxb.) Willd. (Asteraceae)	*Landga*	Root	A tsp of root powder mixed in a cup of coconut milk with 1-2 tsp of sugar is given early morning in empty stomach for 6-8 days to cure rheumatism.
2	*Adhatoda zeylanica Medic. (Acanthaceae)*	*Adulsa*	Leaf	Leaf poultice is applied on knees topically once at night for 5-6 days for relieving rheumatism and arthritis.
3	*Brassica nigra* (L.) Koch. (Brassicaceae)	*Kali Mohari*	Seed	A cup of seeds boiled for 2-3 minutes in 100 ml of erand (*Ricinus communis*) seed oil and two tsp each of Mohari, (*Brassica compestris*) and Til (*Sesamum indicum*) oil, with 3-4 tsp of lasun (*Allium sativum*) cloves extract is massaged on the back and knees once daily at night before going to bed for 10-12 days to relieve rheumatism.
4	*Cardiospermum helicacabum* Linn. (Sapindaceae)	*Kapal Fodi*	Leaf	An extract from Aatpav (about 100gm) of fresh leaves in water is mixed with an equal quantity of rice and mungbean flour to prepare chappatis and fed to oxen and He- buffaloes once a day in early morning in empty stomach up to 18-20 days to relieve pains due to arthritis and rheumatism.
5	*Cereus pterogonus* Lem. (Cactaceae)	*Tridhar*	Latex	About 2-3 tsp of latex from plant is mixed with a pinch of Haldi (*Curcuma domestica*) powder in a cup of Til (*Sesamum indicum*) seed oil and massaged once daily at night up to 8-9 days on muscles to cure arthritis.
6	*Clematis gouuriana* Roxb. ex DC. (Ranunculaceae)	*Shendvel*	Leaf	Paste from 5-6 fresh and healthy leaves is mixed with 4-5 black (Piper nigrum) pepper fruits, 2-3 lasun (Allium sativum) cloves in 2-3 tsp of erand (*Ricinus communis*) oil and same formulation is applied thoroughly on the body region once a day at night half hour prior to sleep for reducing pains due to rheumatism.
7	*Clerodendrum serratum* (L.) Moon. Vent. (Verbenaceae	*Bharangi*	Root	Paste from aatpav (aprox.100gm) fresh and healthy roots with 1-2 tsp of Arjun sadada (*Terminalia arjuna*) stem bark powder in a cup of coconut oil is applied locally once daily up to 9-12 days to cure arthritis.
8	*Cryptolepis buchanani* Roem & Schult. (Periplocaceae)	*Krishna Sariva*	Latex	Fresh 2-3 tsp of latex is mixed in luke warm Til (*Sesamum indicum*) oil with a pinch of Haldi (*Curcuma domestica*) powder and this homogeneous mixture is applied on the joints and muscles once a day up to 8-10 days to control rheumatism.
9	*Datura inoxia* Mill. (Solanaceae)	*Safed Dhotra*	Leaf	A handful (aprox.100gm) of young leaves are crushed in required quantity of cow's urine with a pinch of common salt and 1-2 tsp of haldi (*Curcuma domestica*) powder, 1-2 tsp of honey and 5-9 lasun (Allium sativum) cloves and the fine paste is applied topically to relieve arthritis.
10	*Hemidesmus indicus* (L.) Schulte (Asclepiadaceae)	*Kavil Vel*	Root	A fine paste from a handful of young roots, 4-6 garlic (Allium sativum) cloves and 1-2 tsp of Jeshthmadh (*Glycirrhiza glabra*) root powder in a cup of goat's urine is rubbed on body once a day at night before bedtime for 6-8 days to cure rheumatism.
11	*Jatropha curcas* L. (Euphorbiaceae)	*Parashi Erand*	Seed	Seed oil and Til (*Sesamum indicum*) oil (two tsp each) is mixed together and this homogeneous mixture is rubbed on the painful joints and mucles once a day at night before bedtime upto 12-15 days to cure arthritis and rheumatism.
12	*Madhuca logifolia* (Koen.)Mac Bride. (Sapotaceae)	*Moha*	Seed	Seed oil with 2-3 tsp of Arjun sadada (*Terminalia arjuna*) stem bark powder is boiled in a mixture of Til (*Sesamum indicum*) oil and Mohri (*Brassica compestris*) oil (one cup each) and the infusion is applied once a day up to 12-15 days to cure rheumatism.
13	*Morinda tinctoria* Roxb. var. tomentosa (Heyne ex. Roth.) H. f. (Rubiaceae)	*Bartondi*	Leaf	About 100 gm of fresh and healthy leaves is boiled in a glass of coconut oil with sunth (*Zingiber officinale*) and haldi (*Curcuma domestica*) rhizome powder (one tsp each) to and the infusion is rubbed topically on the body to relieve rheumatism.
14	*Pergularia daemia* (Forssk.) Chiov. (Asclepiadaceae)	*Utrandi*	Root	A cupful of fresh root extract in yogurt is given orally to the ageold women with 1-2 tsp of honey up to 10-12 days for 8-12 weeks to cure rheumatism.
15	*Plumeria acuminata* Ait. (Apocynaceae)	*Khair chafa*	Latex	Two to three tsp latex is boiled in a mixture of Til (*Sesamum indicum*) oil and coconut (*Cocos nucifera*) oil (Aatpav each) and the infusion is mashed on painful joints once daily at night up to 10-12 days to relieve arthritis.
16	*Pongamia pinnata* (Linn.) Pierre. (Fabaceae)	*Karanj*	Seed	Two tsp oil from seeds is mixed with equal quantity of erand (*Ricinus communis*) seed oil and the luke warm mixture is applied on swollen and inflated body region once a day up to 8-10 days to relieve pains due to rheumatism and arthritis.

17	*Ricinus communis* Linn. (Euphorbiaceae)	*Erand*	Leaf	5-6 fresh leaves of are punctured with a sharp needle, smeared with warm Til (*Sesamum indicum*) oil and placed on painful joints and also on swollen and inflated muscles once a day at night before bedtime for 15-18 days to cure rheumatism.
18	*Trichodesma sedgwickianum* S.P.Banerjee (Boraginaceae)	*Andh - Pusphi*	Leaf	Four to five fresh leaves punctured with a sharp needle, are smeared with 2-3 tsp hot mohri (*Brassica compestris*) seed oil and applied on the body region once a day at night half hour before sleep up to 8-10 days to relieve rheumatism.
19	*Urena lobata* Linn. (Malvaceae)	*Chikana*	Root	Fresh roots are cut into 1-2 cm long pieces, wore into leather thread and tied around the neck of the patient to relieve rheumatism.
20	*Vitex negundo* L. (Verbenaceae)	*Kali nirgudi*	Leaf	Water with fresh leaves boiled in it for 4-5 minutes is used for bathing in the early morning for 18-22 days to relieve rheumatism and arthritis.

DISCUSSION

During the field visits (table 1) 20 plant species belonging to 17 families have been reported from the study area. These plants have been utilized by the local inhabitants in curing arthritis and rheumatism in traditional ways. Some of the taxa are *Cardiospermum helicacabum* (Kapalfodi), *Clematis gouuriana* (Shendvel), *Cryptolepis buchanani* (Krishna-sariva), (Salai),*Hemidesmus indicus* (Kavilvel), *Jatropha curcas* (Parashi erand), *Morinda tinctoria* (Bartondi), *Pergularia daemia* (Utarand), *Pongamia pinnata* (Karanj), *Ricinus communis* Erand),*Madhuca langifolia* (Moha), *Urena lobate* (Chikana), *Cereus pterogonus* (Tridhar), *Plumeria acuminata* (Khair chafa) and *Vitex negundo* (Kali-Nirgudi) possess potential of better economic exploitation.

Since all these plant species are in use in more or less proportion throughout the world, have wide scope for bioprospecting. Therefore, it is our prime duty should be to protect, conserve and maintain it in a proper way for our future studies.

CONCLUSION

Information collected from the area under the study, is located in Daund region in Pune district. The traditional healers, local informants, vaidyas and hakims who reside in the forest and villages bordering the forest mainly depend on plant resources have rich traditional veterinary knowledge on medicinal values of the plants and their uses which transmitted to them verbally in an informal way from their forefathers. Most of the traditional wealth of knowledge in India is eroding at faster rate due to loss of the ancient traditions and culture as they are mostly oral. Due to their continuous and progressive exposure to modernization, there is serious threat about extinction of such rich heritage of information in the coming time. Effort should be initiated for the documentation and computerization of useful medicinal plants and their traditional knowledge.

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