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Ethno-medicinal Plants Used by the Tribal People of Shahdol District, Madhya Pradesh For The Treatment of Rheumatism

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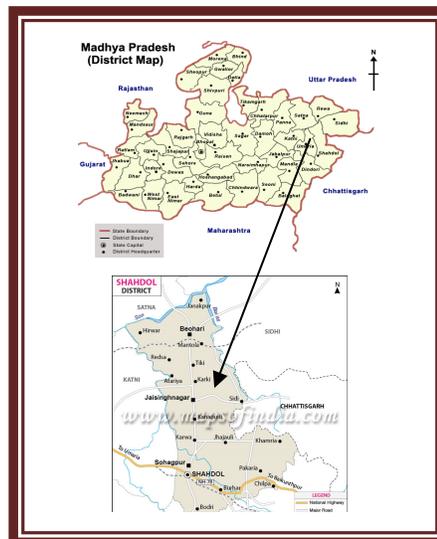
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Abstract - The present study deals with survey on ethno-medicinal plants of Shahdol district in Madhya Pradesh. A good number of plant species are being used by tribal and rural people for the treatment of joint diseases e.g. rheumatism, gout and arthritis. In this study, 35 ethno medicinal plant species belonging to 32 families and 35 genera were recorded. Out of 35 plant species, 16 are used for curing arthritis 11 for rheumatism and 08 for gout. *Vitex negundo* is a popular herb frequently used by the local tribal people for many joint diseases.

Keywords - Herbal Remedies, Tribal People, Shahdol, Joint Diseases.

I. INTRODUCTION

Medicinal plants are the gift to mankind because they cure diseases without any side effects. Herbs have been playing a major role in curing various ailments and diseases from antiquity. Herbal medicines used widely by the tribals and rural people, as they are available in the vicinity of their homes. Herbs contain a large number of naturally occurring substances that work to alter the body's chemistry in order to return it to its natural state of health. In recent years, due to fast and busy life style, mental tension, low physical activity, many diseases and disorders are increasing (Sahu, 2010). One of the most common musculoskeletal disease and disorder is rheumatism, which is more frequent in women at the age of forty and above. The cause of rheumatism is due to deposition of uric acid in cartilage of joints. Recurrent attacks, pains and swelling of joints, with crippling effects in some cases, have also been observed in various joint diseases. Herbs have been used for centuries in the treatment of many diseases and it has been demonstrated that some of them can have an incredible effect as an herbal treatment for rheumatism. In modern allopathic system many medicines are also prescribed for this disorder, but they have many side effects. Therefore to avoid their side effects, now days, people are much inclined to use herbs based medicines rather than modern allopathic (Samvatsar and Diwanji 1999). Keeping this in view, present paper highlights the ethnomedicinal plants which are used traditionally for treatment of rheumatism in Shahdol district. These herbs have properties that can significantly reduce joint pain or swelling and have no side effects.



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Ethnobotanical studies on medicinal plants of Madhya Pradesh were carried out by many worker such as (Jain, 1963a, Maheshwari, *et al.*, 1986, Lal, 1988, Oommachn and Masih, 1989, Kadel, and Jain, 2006, Khan, *et al.*, 2005 & 2008, Wagh and Jain, 2010, Diwanji, 2011, Jadhav and Rawat, 2011, Alawa and Ray, 2012). The present paper provides ethnomedicinal information on some important plant species used by the tribal communities of Shahdol district to cure the joint diseases.

Shahdol District is situated in the northeastern part of the Madhya Pradesh provinces of India. Because of the division of the district on 15-08-2003, the area of the district remains 5671 km². It is surrounded by Anuppur in the southeast, Satna & Sidhi in the north and Umaria in the west. The district extends 110 km from east to west and 170 km from north to south. This district is situated between 22°38' N latitude to 24°20' N latitude and 80°28' E Longitude to 82°12' E longitude. The District is located in the north-eastern part of the Deccan Plateau.

II. MATERIAL AND METHODS

Observations are based on surveys conducted in tribal dominated areas of Shahdol district during June 2014- May 2015. Group interviews were organized bringing plants from selected locality and showing them or taking local medicine men into the forest, as suggested by Jain (1987). Information regarding plant i.e. local name, parts used, method of drug preparation, dosage etc. was gathered from the tribals as well as medicine men 'Ojha'. The collected plant specimens were identified taxonomically with the help of regional flora and other authentic published literature. Herbarium specimens prepared following the standard method (Jain and Rao, 1976) and have been deposited in Botany Deptt. of Pt. S.N.S. Govt. P.G. College, Shahdol (M.P.).

III. RESULTS

Detailed information about various species along with diseases and drug preparation is given in Table 1.

Table 1. List of plant species used by the tribals of Shahdol district

S.No.	Botanical name and Family	Local name	Disease name	Drug Preparation
1.	<i>Alstonia scholaris</i> (L.) R.Br. (Apocynaceae)	Saptaparni	Arthritis	Glassful bark decoction is given orally twice a day daily
2.	<i>Amorphophallus paeniifolius</i> (Dennst) Nicolson (Araceae)	Jangali Bhuta	Rheumatism	Corm paste is applied on affected parts.
3.	<i>Argemone mexicana</i> L. (Papaveraceae)	Katseriya	Gout	Seed oil is boiled with mustard oil and massaged over the affected parts.
4.	<i>Aristolochia indica</i> L. (Aristolochiaceae)	Isharmul	Rheumatism	Root decoction is given twice a day.
5.	<i>Boswellia serrata</i> Roxb. ex Colebr. (Burseraceae)	Salad	Arthritis	Gum is fried in sesamum oil and massaged on affected parts.
6.	<i>Buchanania lanzan</i> Spreng. (Fabaceae)	Achar	Rheumatism	Stem bark paste is massaged over limb.
7.	<i>Celastrus paniculatus</i> Willd. (Celastraceae)	Kangan	Rheumatism	Seed oil is applied externally on affected parts.
8.	<i>Cissus quadrangularis</i> L. (Vitaceae)	Gathiya	Arthritis	Whole plant paste is bandaged on the affected parts.
9.	<i>Cleome viscosa</i> L. (Cleomaceae)	Kuslya	Arthritis	Leaf paste is bandaged on swelling.
10.	<i>Costus speciosus</i> (J. Koeing) Sm (Costaceae)	Jangali Aadu	Gout	Rhizome paste is applied externally on affected parts.
11.	<i>Curculigo orchioides</i> Gaertn. (Hypoxidaceae)	Kali musli	Gout	Root paste is applied over swelling.

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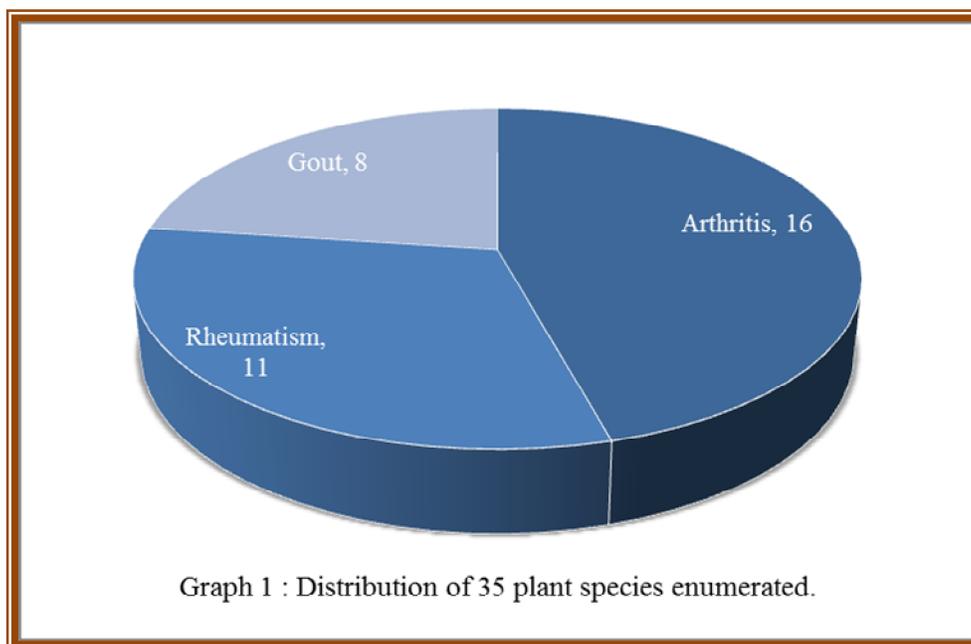
12.	<i>Cynodon dactylon</i> (L.) Pers. (Poaceae)	Dub	Arthritis	Decoction of whole plant is given orally twice a day.
13.	<i>Elephantos scaber</i> L. (Asteraceae)	Gaujehawa	Rheumatism	Two teaspoonful root powder is administered orally twice a day.
14.	<i>Eucalyptus umbellata</i> Dum. (Myrtaceae)	Lipta	Arthritis	Leaves are crushed and mildly heated and gently massaged over affected parts.
15.	<i>Euphorbia neriifolia</i> L. (Euphorbiaceae)	Thuvar	Arthritis	Stem is mildly heated and the gel is applied externally.
16.	<i>Ficus benghalensis</i> L.	Bad	Gout	Latex is massaged on affected area.
17.	<i>Ipomoea carnea</i> Jacq. (Convolvulaceae)	Umarichata	Arthritis	Latex is applied on affected areas.
18.	<i>Lanea coromandelica</i> (Houtt.) Merr.(Anacardiaceae)	Moyan	Rheumatism	Stem bark decoction is given orally thrice a day.
19.	<i>Leea asiatica</i> (L.) Ridsdale (Leeaceae)	Nanli Danhi	Arthritis	1 gm root powder mixed with mustard oil is taken orally twice a day.
20.	<i>Madhuca longifolia</i> var. <i>latifolia</i> (Roxb.) Chevalier (Sapotaceae)	Mahua	Gout	Seed oil is applied on affected parts.
21.	<i>Morinda pubescens</i> Sm. (Rubiaceae)	Aaledi	Arthritis	Fruit grounded with <i>Ricinus communis</i> oil and the formed paste is massaged over affected parts.
22.	<i>Moringa oleifera</i> Lamk. (Moringaceae)	Sehajana	Rheumatism	Bark is pounded in water and the extract is given orally twice a day.
23.	<i>Physalis minima</i> L. (Solanaceae)	Kanfuta	Arthritis	Root paste is applied on affected parts.
24.	<i>Plumbago zeylanica</i> L. (Plumbaginaceae)	Chitawal	Gout	Root paste boiled in mustard oil and massaged over affected parts.
25.	<i>Ricinus communis</i> L. (Euphorbiaceae)	Arandi	Rheumatism	Seed oil is massaged on limb.
26.	<i>Salvadora persica</i> L. (Salvadoraceae)	Pilu	Gout	Root bark is ground with mustard oil and bandaged on swelling.
27.	<i>Sapindus emarginatus</i> Vahl (Sapindaceae)	Reetha	Arthritis	Fruit pulp is massaged on affected part.
28.	<i>Schelcheria oleosa</i> (Lour.) Oken. (Sapindaceae)	Kusumda	Arthritis	Seed oil is heated mildly and massaged over affected parts.
29.	<i>Sida cordata</i> (Burm. f.) Borss. (Malvaceae)	Rajbala	Gout	Root paste is mildly heated and applied externally.
30.	<i>Soymida febrifuga</i> (Roxb.) A. Juss. (Meliaceae)	Rohan	Arthritis	Stem bark boiled in mustard oil and is massaged twice a day.
31.	<i>Tinospora cordifolia</i> (Willd.) Miers ex Hook.f. & Thoms. (Menispermaceae)	Giloy	Arthritis	5 ml stem decoction is given orally twice a day.
32.	<i>Urginea indica</i> (Roxb.) Kunth (Liliaceae)	Jangali Piyaz	Rheumatism	Bulb paste is bandaged on the affected part.
33.	<i>Vitex negundo</i> L. (Verbenaceae)	Nirgudi	Rheumatism	Leaf hot fomentation is used.

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34.	Wattakaka volubilis (L.F.) Stapf (Asclepiadaceae)	Kadwa dudi	Rheumatism	Whole plant is macerated with water and mustard oil is added, formed paste is used.
35.	Woodfordia fruticosa (L.) Kurz (Lytharaceae)	Dhawai	Arthritis	Leaf paste is massaged over affected

IV. DISCUSSION AND CONCLUSION

Present study reveals that in absence of modern health facility people living in area depend on plants for medicinal purposes. In this study 35 plant species belonging to 32 families distributed in 35 genera were recorded (table1). These plants are used for curing joint diseases, viz., arthritis, rheumatism and gout. The plant species used by the rural people for the treatment of various joint diseases are very common, easily available everywhere and low cost. Their mode of preparation and mode of administration are also simple and convenient. The common man can easily afford to take the treatment without side effect. Out of 35 plant species enumerated above, 16 plant species are used in arthritis 11 in rheumatism and 08 in gout. *Vitex negundo* (Nirgudi) is a popular herb frequently used by the rural people for many joint diseases.



Based on the initial reconnaissance survey and group discussion, it was found that information on the medicinal use of plant is mostly confined to elder people. Younger generation is ignorant about the vast medicinal resources available in their surrounding and is more inclined towards the conventional medicines. It was also found that the tribal practitioners are hesitant to disclose their knowledge.

The indigenous knowledge system of herbal practice is still very rich and available among tribal community of Shahdol district (Madhya Pradesh). The establishment of modern medicinal health centers is in progress in many rural areas that may gradually change the existing pattern of indigenous knowledge system of health care. Hence it is necessary to document the traditional knowledge of useful plants and their therapeutic uses before being lost forever from the community.

It is significant to mention here that as the treatment given by tribals is found very effective. Hence there is need to raise awareness among people about this flora and to assist them for cultivation and conservation of the plant to local people of the area to meet their own medicinal needs.

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