

Periodic Research

Ethnobotanical Study on Traditional Medicinal Plants used against Rheumatism in Shivpuri District

Abstract

Shivpuri is a floristically rich area, where plants of various categories are growing spontaneously in their natural habitat. Shivpuri is the northern district of Madhya Pradesh state with beautiful land scope consisting of small hills and deciduous forests. Shivpuri has total area of 10278 square kilometers and a population of 1726050 peoples. The information on the use of medicinal plants in the treatment of Rheumatism was gathered from 10 informants through interviews, A total number of 20 plants species against 17 families were found useful against Rheumatism.

Keywords: Shivpuri, Sahariya Tribe, Medicinal Plants, Rheumatism.

Introduction

Ethnobotany can be defined as the total natural and traditional relationship as well as the interactions between man and his surroundings. Plants wealth the information about the medicinal plants and their uses is still lying unclaimed of Shivpuri district of Madhya Pradesh. The Sahariya also used utilize various plants species for Rheumatism, Rheumatism is common disease of rural areas. Thus, the present study is focused on the documentation of traditional knowledge of medicinal plants used in treatment of Rheumatism.

Review of Literature

Literature review is an important part for any scientific study; with the help of this we can do the basic interpretation of the findings of the study. So far, Many studies have been done on ethnomedicinal plants in rural areas of Madhya Pradesh by eminent people for like N.P. Bhalla, T.R. Sahu, G.P. Mishra & R.N. Dakwale (1982), Jain (1963b), Nath and Khatri (2010), S.P. Jain, S.C. Singh et al. (2009), A.H. Erithenhi (2016), Amrila Singh et al.(2016) etc. But there is a constraint to the systematic study and this constraint is because of the reason that available information is in fragmented state. It is not in consolidation form. So what we need is integration of information in cohesive manner. His will helps in promoting systematic study.

Aim of the Study

Ethnobotany is the study of traditional human uses of plants. It is recognized as an effective way to discover future medicines. Rheumatism in Inhabitants of the Shivpuri district of Madhya Pradesh is a dominant reason causing acute illness.

It is characterized by pain and swelling of the muscles ligaments and tendon. Rheumatism commonly known as "vat", "Gathia" in Hindi This study is an effort to document and preserve herbal knowledge. This will help in systematic and effective treatment of rheumatism.

Also, other objectives include-

1. Exploring the ethnomedicinal knowledge of tribes in Shivpuri district.
2. Authentication of ethnomedicinal plants used in treatment of rheumatism with family, local name and mode of use.
3. Medicine preparation -That is documentation of the procedure used by tribes of Shivpuri district region.

Material and Method

Ethnobotanical survey was carried out in Shivpuri district during the year 2014-15. During the period of survey we visited 10 tribal rich villages namely- Mahloni, Sad, Nand, Bira, Ganeshkheda, Badagaon, Gohari Rannod, Khajuri, Amolpatha.

The information about the medicinal use of plants species was gathered by district interaction with 10 informants, were in age group of 42-65 years. The information was recorded in standard questionnaire. This



Poorti Chaturvedi

Assistant Professor,
Deptt.of Botany,
Govt. Model Science College,
Gwalior, M.P. India

questionnaire had columns asking information about local name, plants parts used, method of drug preparation, mode of administration probable dosage and duration of treatment. The data was recorded in

the field note book and Herbarium sheet are prepared by standard method. Specimens were identified with the help of B.S. I. flora.

Table -1.1

Name of Informants of Different Villages of Shivpuri with their Age, Sex and Category

S.No.	Name of informants	Age	Sex	Village	Category
1	Parsadi Adiwasi	65	Male	Mahloni	Medicine man
2	Ganesh rathor	65	Male	Sad	Medicine man
3	Harnam Singh	50	Male	Nand	Medicine man
4	Harprasad Adiwasi	45	Male	Bira	Medicine man
5	Gokul Adiwasi	68	Male	Ganeshkheda	Medicine man
6	Narayan Adiwai	60	Male	Badagaon	Medicine man
7	Sunniram Singh	48	Male	Gohari	Medicine man
8	Simru Adiwasi	42	Male	Rannod	Medicine man
9	Batanlal Adiwasi	55	Male	Khajuri	Medicine man
10	Pitam Adiwasi	40	Male	Amolpatha	Medicine man

Result and discussion

Present study revealed that knowledge about various plant species and it can be said the people of Sahariya tribe of Shivpuri district have a good knowledge about various plants species that can be used for the treatment of Rheumatism. Such plants species are available in their locality. In the present study we have reported 20 plant species belonging to 17 families.

20 plant species are used against rheumatism belong to 17 families out of these 17 families are the most frequently represented family followed by Solanaceae, Meliaceae, Verbenaceae. The percentage of different plants parts used for treatment of Rheumatism shown by fig 1.1 the percentage of methods of remedy preparation for treat of rheumatism is shown by fig 1.2.

Table no.-1.2
Rheumatism

S. No.	Name of Plant Species	Local Name	Family	Plant Part Used	Mode of Utilization
1	<i>Alangium salvifolium</i> (Linn. f.) Wang.	Akol	Alangiaceae	Root	Decoction of root is taken for the treatment of rheumatism
2	<i>Asparagus racemosus</i> Willd.	Satavar	Asparagaceae	Root	Paste of fresh tuberous root is used to relive pain in knees. The paste is applied on knees in night for three days.
3	<i>Cocculus hirsutus</i> (Linn.) Diels.	Silahta	Menispermaceae	Root	Powder of root is given with water for the treatment of rheumatism.
4	<i>Daemia extensa</i> R. Br.	Utaran (Gudaria ki bel)	Asclepiadaceae	Leaves	Mixture of leaf juice and lime is applied on joints for the treatment of rheumatism.
5	<i>Dioscorea esculenta</i> Burkill.	Kanda	Dioscoreaceae	Tubers	Decoction of the tubers is given for the treatment of rheumatism.
6	<i>Erythrina variegata</i> Linn.	Pangara	Fabaceae	Bark	Paste of bark is applied on joints to treat rheumatism.
7	<i>Ficus benghalensis</i> Linn.	Bad. (Bargad)	Moraceae	Leaves	Warm leaves are tide on joints to relieve rheumatic pain.
8	<i>Grewia elastica</i> Royle	Khursi	Tiliaceae	Stem-bark	Paste of stem bark is applied on joints for the treatment of rheumatism.
9	<i>Hardwickia binata</i> Roxb.	Anjan	Caesalpiniaceae	Leaves	Paste of leaves is applied on knees to relieve rheumatic pain.
10	<i>Luffa echinata</i> Roxb.	Turai	Cucurbitaceae	Leaves	Decoction of leaves is given once in a day and for a week to treat rheumatism.
11	<i>Melia azedarach</i> Linn.	Bakin	Meliaceae	Seeds	Seeds oil is applied externally for the treatment of rheumatism.
12	<i>Origanum vulgare</i> Linn.	Marua Dona	Lamiaceae	Leaves	Paste of leaves is applied on joints for the treatment of rheumatism.
13	<i>Rungia pectinata</i> (Linn.) Nees	Kharma	Acanthaceae	Leaves	Decoction of the leaves is given to treat rheumatism.
14	<i>Salvadora oleoides</i>	Gadela	Salvadoraceae	Seed	Seed oil is applied on joints to

	Decne	(Pillu)			
15	<i>Smilax zeylanica</i> Linn.	Ramdaton	Liliaceae	Root	Decoction of root is given once in a day and for seven days to treat rheumatism.
16	<i>Solanum nigrum</i> Linn.	Makoi	Solanaceae	Leaves	Cooked leaves are eaten as vegetable by pregnant women for the treatment of rheumatism.
17	<i>Soymida febrifuga</i> (Roxb.) A. Juss.	Safed Kher	Meliaceae	Bark	Decoction of bark is given twice in a day for the treatment of rheumatism.
18	<i>Tagetes erecta</i> Linn.	Genda	Asteraceae	Leaves and flowers	Decoction of leaves and flowers is given once in a day for the treatment of rheumatism.
19	<i>Vitex negundo</i> Linn.	Nirgundi	Verbenaceae	Leaves	Leaves are boiled in mustard oil with some garlic and this medicated oil is applied on joints to relieve rheumatic pain.
20	<i>Withania somnifera</i> Dunal	Ashwangandha	Solanaceae	Root	The root powder is taken with warm milk for the treatment of rheumatism.

Fig-1.1

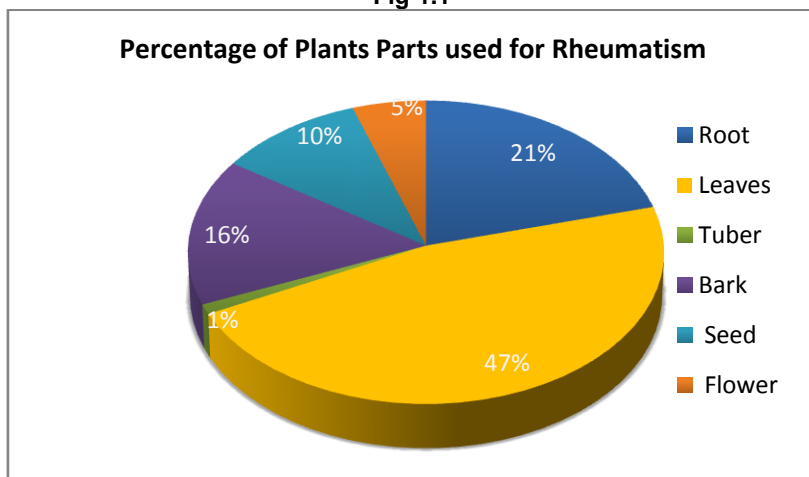
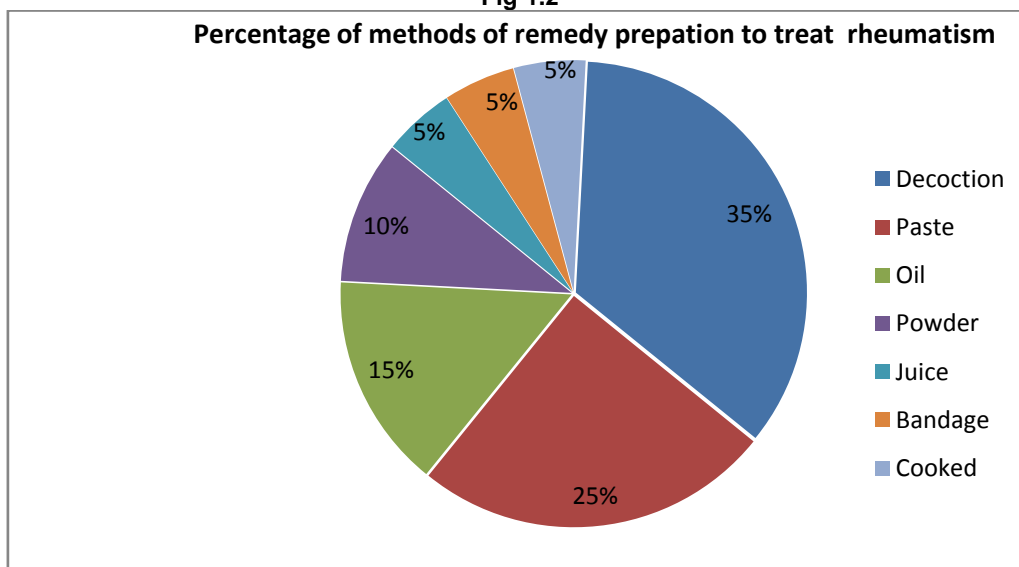


Fig-1.2



Conclusion

Shivpuri district is the most frequently in Ethnobotanical knowledge the present study shows that medicinal plants have great potentially to be rheumatism. This study will help to develop strategy for conservation of plants species of medicinal value.

Acknowledgement

The authors are thankful the tribal people of Shivpuri district for their help in the transmission of traditional knowledge.

References

- Amrila singh medicinal plants used against joint diseases (rheumatism, arthritis and gout) in Rewa district of Madhya Pradesh, international journal of botany studies 2455-541x, vol.1; 5 July 2016: page no. 09-10.
- Babu S.R, Karki S.S Anti-inflammatory activity of various extracts of roots of *Calotropis procera* against different inflammation models. International journal of pharmacy and pharmaceutical sciences 2011; 3(3): 191-194.
- Baasher. T; 1980. Promotion and development of research in traditional medicine: The WHO role in countries of the eastern Mediterranean region. J. Ethnopharmacology 2: 75-79.
- Banerjee, D.K., 1974. Magico- religious beliefs about plants among some Adivasis of India. J. Mythic Sac. 65 (3): 5-8.
- Berlin, B., 1971. "Speculations of the growth of Ethnobotanical nomenclature. "Language in society 1: 51-86.
- Bhalla, N.P., T.R. Sahu, G.P. Mishra & R.N. Dakwale, 1982. Traditional plant medicines of Sagar District M.P. Indian J. Econ. Taxon. Bot. 3: 23-32.

Bhargava. N., 1983. *Ethnobotanical Studies of the tribes of Andaman and Nicobar Island.*

Kerala, A. Pathophysiology, epidemiology of comorbidities in early rheumatoid arthritis with emphasis on cardiovascular disease, (1): 3 (2015).

Nath Vijendra and Khatri Pavan Kumar* Traditional knowledge on ethno-medicinal uses prevailing in tribal pockets of Chhindwara and Betul Districts, Madhya Pradesh, India African Journal of Pharmacy and Pharmacology Vol.

O.A. Ogunkalu^{1,*}, A.I. Sodimu, R.A. Suleiman et al. Ethnomedicinal survey of plants used for the treatment of rheumatism in Kajuru local Government area of Kaduna state, Nigeria WSN80 (2017) 43-56 ; 2392-2192.

Routsias, J.G. Goules, A. Charalampakis, G. And Pikazis, D. Autopathogenic correlation of periodontal and rheumatoid arthritis, rheumatology (Oxford) 50 (7):1189-93 (2011).

Sikarwar, R.L.S. and Kaushik, J.P., 1992. Some less known medicinal uses of trees among the Sahariyas of Morena district, M.P., India. Ethnobotany. Vol.7 pp, 137-138.

4(9), pp. 662-670, September, 2010.

V. L. Kumar and S. Roy, *Calotropis procera* latex extract affords protection against inflammation and oxidative stress in Freund's complete adjuvant-induced monoarthritis in rats. Mediators of Inflammation 2007; 2007: 1-7 11.

V. Arya, V. K. Gupta, R. Kaur A review on plants having anti-arthritic potential. International Journal of Pharmaceutical Sciences Review and Research 2011; 7(2): 131-136.