International Journal of Botany Studies
www.botanyjournals.com
ISSN: 2455-541X
Received: 01-06-2021, Accepted: 15-06-2021, Published: 30-06-2021
Volume 6, Issue 3, 2021, Page No. 977-980

Some efficient medicinal plants used for joint pain purpose by the tribes in Kota block, bilaspur (C. G.)

Durgesh Dixena[1*], D K Patel[2]

[1] Department of Rural Technology, Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur, Chhattisgarh, India
[2] Department of Botany, Guru Ghasidas Vishwavidyalaya (A Central University), Bilaspur, Chhattisgarh, India

Abstract
Medicinal plants are important biological resources, showing their efficient role in treatment of various disorders among the peoples living nearby the forest areas including tribes of India.
The present study in based on survey of Medicinal plants in the region of tribes in Kota Block, Bilaspur (C. G.) during 2017-18 in relation to their efficient utilization for treating joint pain. The local tribes were interviewed for the exploration of knowledge on Medicinal plants which are utilized by them following different modes to treat joint pain.
A total of 16 Medicinal belonging to 11 families were recorded from study area. Details of each one medicinal plant following their botanical name, common name, Chhattisgarhi name, family, habit, useful plant parts, mode of utilization, propagation and availability of the Medicinal plants in Study area were arranged in Table -1. Furthermore, the discussion made by following relevant points.

Keywords: joint pain, medicinal plants, tribes

Introduction
Most of the tribal groups living in villages which are situated on hill tops or neatly tucked in the valleys of tribal areas. The tribal areas are near and in the midst of forests and mountains. They have very little contact with others. Forests and tribal people are inseparable and their existence, development depends on each other. Tribal people have got a symbolic relationship with the forests and mountains located around them. Tribes utilizing forest resources for their livelihood as well as for their primary health care following application of varied medicinal plants found in and around the forest areas.
Ethnobotany focus on direct relationship between peoples and plants. These are potentially utilizing since long age to treat varied disorders due to efficient compounds present in each and every one medicinal plants. Its concentration and types are variable among the plants these three traditional systems of medicine like Ayurveda, siddha and Unani all the system of treatment of various disorders. Focus on utilization of medicinal plants by different mode of preparation, these medicinal plants are significantly applied for different purposes. In term of concept and scope, ethno botany rapidly expanding in last three decades. In starting it was focused for utilization of plant by the tribals for different targets. Currently it is also including conservation of medicinal plants, ethno-pharmacognosy and ethno-pharmacology etc.
Tribes are living in different zone of the states, there are 5 tribal communities are declared as particularly vulnerable tribal groups (PVTG) by govt. of India in Chhattisgarh. Tribal peoples have explored a variety of herbal medicines for effective cure of various diseases. The utilization of plants, their preparation and administration are varies from area to area. There are numerous herbal medicines, whose ingredients have not been experimented and documented by the pharmaceuticals. But, by exclusive practice, these drugs have shown wonderful results. The knowledge of herbal medicine is gradually vanishing, although some traditional healers and aged tribes are still practicing the herbal medication. Knowledge provided by these tribal peoples is usually transferred to generations, by folklore. Therefore, a large amount of valuable knowledge about numerous herbal medicines has lost with the death of the people using it and also due to disappearance of the medicinal plants. Hence it is of great importance that this information should be gathered from traditional healers and documented for future reference, as there is an increase shift in the acceptability of herbal medicines compared to allopathic drugs, as they are effective, and efficient to treat specific disorders. The tribal people have a rich knowledge of different plants for use in different ailments, such as diarrhoea, jaundice, fever, headache, leprosy, diabetes, malaria, fractures, dental problem, anti-diabetic purpose etc.
In India, Ayurveda medicine has used many herbs such as turmeric possibly as early as 4,000 BC. Earliest Sanskrit writings such as the Rig-Veda, and Atharva Veda are some of the earliest available documents detailing the medicinal knowledge of the plants that formed the basis of the Ayurveda system. Due to easily availability, low cost and no side effect for utilizing Medicinal plants are key factors for increasing their demand among the society day by day. Relation with Medicinal plants and tribes of the study area was studied.

Review of Literature
Harsha et al. 2003 [1] focused on ethno-medico-botany of Uttrakannada district in Kerala, India. Ethnobotanical studies in the tribes region of Hoshangabad district was done by Jain 2002. Ethnobotanical Knowledge of Medicinal Plants among Tribal Communities in Orissa was recorded

by Kandari et al. 2012. [3] Maikhuri R. K. and Gngwar A. K.1993 [4] studied on ethnobotanical notes of the Khasi and Graro tribes of Meghalaya, north east India. Maikhuri et al. 1998 [5] noticed Role of medicinal plants in the traditional health care system: A case study from Nanda Devi Biosphere Reserve. Traditional use of medicinal plants in south central Zimbabwe: review and perspectives was studied by Maroyi 2013. [6] Phondani et al. 2010 [7] focused on Ethnobotanical uses of plants among Bhotiya Tribal Communities of Niti Valley in Central Himalaya, India. Ethnobotanical Survey of Medicinal Plants Used by the Traditional Healers in Mudivaithananthal Village of Thoothukudi District, Tamil Nadu, India was done by Priyadharshana et al. 2019 [8] Traditional herbal medical knowledge in Sagar taluk of Shimogga district, Karnataka, India was done by Rajkumar and Shivanna, M. B. 2010. [9] Rao et al. 2015 [10] recorded on some ethnomedicinal plants of parnasala sacred grove area eastern ghats of khammam district, Telangana, India. Documentation of Ethnomedicinal Knowledge of hilly tract areas of East Godavari District of Andhra Pradesh, India. Was recorded by Ratnaraju et al. 2014. [11] Rout and Panda 2017. [12] Focused on ethnobotanical survey of medicinal plants used for the treatment of diarrhoea and dysentery by the tribals of Similipal forest, Mayurbhanj, Odisha, India. Saranraj et al. 2016 [13] has done ethnobotanical survey of medicinal plants from Vellore district, Tamil nadu, India.

Materials and Methods

Field visits were done (in adopted village by the Guru Ghasidas Vishwavidyalaya (A Central University) Bilaspur – Chhattisgarh - India) to achieve the present goal regarding ethnobotanical study on Medicinal plants. door to door survey was made in the year 2017-18 and further discussion was made with local traditional healers, Baigas for gaining the information on Medicinal plants related to useful in joint pain.

Result and Discussion

In present study 16 Medicinal plants found useful for Joint Pain purpose were recorded and listed in Table – 1 with the details on their botanical name, common name, chhattisgarhi name, family, habit, useful plant parts, mode of utilization, propagation and availability of the Medicinal plants in study area individually.

Table 1: Medicinal plants used for Joint Pain purpose by the tribes in Kota block, Bilaspur (C. G.)

S. No.	Useful Medicinal Plant (Botanical Name)	Common Name	Chhattisgarhi Name	Family	Habit	Useful Plant Parts	Mode of Utilization	Propagation	Availability of the Medicinal plants in Study area
1.	*Acacia catechu* (L.F.) Willd..	Khair	Khair	Leguminosae	Tree	Bark	Bark crushed well and applied on affected area twice a day for 8-10 days	Seed	Common
2.	*Aloe vera* (L.) Burm.f.	Gwarpatha	Ghritkumari	Xanthorrhoeaceae	Herb	Leaf	Leaf gel paste on affected area twice a day for a week	Offset	Common
3.	*Asparagus racemosus* Willd.	Satavar	Satavar	Asparagaceae	Shrub/Climber	Tuber	Fine tuber powder with sugar and milk taken thrice a day for 5-7 days	Seed/ Tuber	Rare
4.	*Brassica campestris* L.	Sarso	Serso	Brassicaceae	Herb	Seed oil	100 ml oil heat for 10 -12 minutes and used externally on affected area thrice a day for 8-10 days	Seed	Common
5.	*Cassia fistula* L.	Amaltas	Dhanbaher	Leguminosae	Tree	Bark	Bark of root crushed well with water filtered and used as crude form twice a day for 12-15 days	Seed	Rare
6.	*Costus speciosus* (J. Koenig) Sm.	Keu kand	Keu kanda	Costaceae	Herb	Rhizome	▪ Rhizomes are crushed well mixed with water and paste on affected area. ▪ Decoction of the rhizome also taken orally twice a day for 5-8 days ▪ Rhizome burn in fire, poweder made and taken orally one tea spoon twice a day for a week	Seed/ Rhizome	Common
7.	*Dalbergia latifolia* Roxb.	Kala sisham	Kala sisham	Leguminosae	Tree	Bark	Fine powder of bark, one tea spoon taken in a glass of water with honey taken orally twice a day for 15-20 days	Seed	Rare
8.	*Datura innoxia* Mill.		Dhotra	Solanaceae	Herb	Leaf	These three plants Leaf, Leaf and Bark with tuber are taken in equally (100	Seed	Abundant

							gms) warm with 100 ml mustered oil for fifteen minutes, After sometimes used on affected area twice a day for a week		
9.	*Eucalyptus globulus* Labill.	Neelgiri	Neelgiri	Myrtaceae	Tree	Leaf, Bark	One cup of well crushed leaf and bark is mixed in 200 ml mustard oil and warm for 120-15 minutes. After sometimes it is applied externally on affected area thrice a day for 8-10 days	Seed	Common
10.	*Flemingia strobilifera* (L.) W.T.Aiton	Samarbhanj	Samarbhanj	Leguminosae	Herb	Root	Root extraction taken orally for 8-10 days twice a day for 10 days	Seed	Rare
11.	*Gloriosa superba* L.	Kalihari	Jhagdalu kanda	Colchicaceae	Herb/Climber	Tuber	Crushed tuber boiled with karanj (*Pongamoea pinnata*) oil for 10 minutes applied on affected area twice a day for a week	Seed/ Tuber	Rare
12.	*Madhuca longifolia* (J. Koenig ex L.) J. F.Macbr.	Mahua	Mahua	Sapotaceae	Tree	Seed oil	Seed oil paste on affected area thrice a day for 10-15 days	Seed	Common
13.	*Pongamia pinnata* (L.) Pierre	Karanj	Karanj	Leguminosae	Tree	Seed oil	Seed oil applied on affected area thrice a day for 10 days	Seed	Common
14.	*Pterocarpus marsupium* Roxb.	Bija	Bijra	Leguminosae	Tree	Bark	One tea spoon powder mixed a glass of water taken twice a day for three days	Seed	Abundant
15.	*Ricinus communis* L.	Arnad	Jada	Euphorbiaceae	Shrub	Seed oil	100 ml oil heat for 10 minutes and apply of affected area twice a day for a week	Seed	Common
16.	*Vitex negundo* L.	Nirgundi	Negur	Lamiaceae	Tree	Bark, Leaf	50 gm bark and leaves are crusher well warm with 50 ml of Mustard oil for fifteen minutes, After sometimes used in affected area twice a day for five days	Seed/ Stem cutting	Common

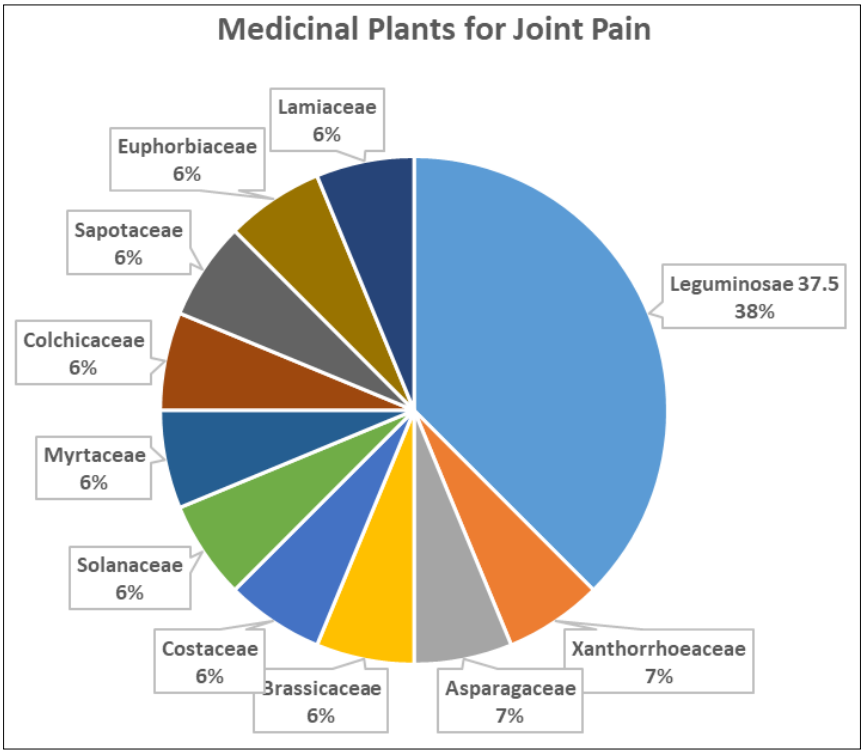

Fig 1

Table 2: Family wise distribution of Medicinal plants Dental Problem

S. No.	Family	Number of Plants
1.	Leguminosae	6
2.	Xanthorrhoeaceae	1
3.	Asparagaceae	1
4.	Brassicaceae	1
5.	Costaceae	1
6.	Solanaceae	1
7.	Myrtaceae	1
8.	Colchicaceae	1
9.	Sapotaceae	1
10.	Euphorbiaceae	1
11.	Lamiaceae	1
Total		16

16 Medicinal plants found useful for the purpose Joint Pain are belonging to families like Six member of Leguminosae and each one - one medicinal plants observed for the families such as Xanthorrhoeaceae, Asparagaceae, Brassicaceae, Costaceae, Solanaceae, Myrtaceae, Colchicaceae, Sapotaceae, Euphorbiaceae and Lamiaceae. A total of 8 trees, 1 Shrub, 5 Herbaceous Medicinal plants including 1 Herb/Climber 1 Shrub/Climber were noticed. In term of propagation 11 Medicinal plants propagating using seeds, one by Seed/Stem cutting, one by seed/rhizome, two by seed/tuber and one by offset.

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