

## ABORIGINAL INVESTIGATION OF SOME ETHNOMEDICINAL PLANTS OF JABALPUR REGION IN TREATING PARALYSIS

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**Abstract** This research was carried out to introduce important useful plants and their ethnomedicinal characteristics in Jabalpur region. Approximately 20 ethnomedicinal species of trees and shrubs belonging to 13 families were recorded. Plants, from time immemorial have been used in the culture of area as medicine. The people living in the remote and tribal area still depend on household or forest remedies for healthcare. Due to the degradation of medicinal flora habitats in the recent past, there is a gradual decline in their distribution and abundance. The study aimed to look into the diversity of plant resources that are used by local people for curing paralysis.

**Key Words:** Medicinal flora, paralysis, forest remedies, diversity.

### Introduction-

Jabalpur region is located in Mahakaushal division in the state of (Madhya Pradesh) in India. It is bordered by Katni to the north, Umaria to the north-east, Dindori to the east, Mandla to the south-east, Seoni to the south, Narsinghpur to the south-west and Damoh to the north-west. Jabalpur is the administrative headquarters of Jabalpur District.

Jabalpur is an important Divisional Headquarters having 8 districts: Jabalpur, Seoni, Mandla, Chhindwara, Narsinghpur, Katni, Dindori, Balaghat. The Jabalpur District has been reconstituted on May 25, 1998. It now has four tehsils Jabalpur, Sihora, Patan and Kundam.

The shape of the Jabalpur viewed its Northwest to South-east axis has the appearance of a butterfly with its wings spread out and approximates a rectangles. It covers an area of 10160 sq.km. The position of Jabalpur is define by the Co-ordinates between 23°10' North latitude and 79°33' East longitude with altitude of 402 mts. Above means sea level. It is situated in charming surrounding of a rocky basin at a height about 9.7 kms. from the sacred river Narmada and 20.0

kms. from Bhedaghat Marbal rocks, one of the most picturesque spots in the country. There are six main rivers in Jabalpur Narmada, Hiran, Gour, Mahanadi, Katni and Ken the Southern half of the district is drained by the Narmada Jabalpur is a growing city.

It is observed that during the rapid expansion of Jabalpur, particularly during the last twenty years villages situated on the fringes of the city are now part of the main city. The process of merging of rural settlements with the urban areas continue there are 20 village on the north-Eastern periphery of Jabalpur one village Paraswara in the South-Eastern portion of Jabalpur, 17 villages including small newly included tehsil of Kundam in the south-west direction and 18 village North-West direction of Jabalpur.

### Paralysis

Paralysis is the complete loss of muscle function for one or more muscle groups. Muscle is a special kind of tissue that enables our bodies to move. It is under the control of the nervous system, which processes messages to and from all parts of the body. Paralysis can cause loss of feeling or loss of mobility in the affected

area. Paralysis of the muscles of the face, arm, and leg on one side of the body is called hemiplegia ("hemi" means "half") and usually results from damage to the opposite side of the brain. Damage to the nerves of the spinal cord affects different parts of the body, depending on the amount of damage and where it occurred. Paraplegia is the term used when paralysis affect the lower part of the body whereas Quadriplegia is the term used for paralysis of arms and legs. Paralysis mainly occurs due to strokes or injuries. Minor paralysis can be cured easily, but the major ones need more time to be cured. Paralysis may be temporary or permanent, depending on the disease or injury. Because paralysis can affect any muscle in the body, a person may lose not only the ability to move but also the ability to talk or to breathe unaided.

### Symptoms of Paralysis

The symptoms of paralysis vary. When the spinal cord is crushed, as in Sang Lan's injury, a person is immediately paralyzed and loses feeling in the affected limbs. When damage to the muscles or central nervous system is caused by a progressive disease or disorder, such as muscular dystrophy or multiple sclerosis, symptoms are gradual and often start with muscle fatigue and weakness. With poliomyelitis (PO-le-o-my-e-LY-tis) and stroke, paralysis comes on suddenly, with little or no warning.

### Materials and Methods

The studies, collections and field work have been done with the help of the following equipments - vasculum, cutter, knife, khurpi, tree pruner, polythene bags, field-book and field proforma, camera, digger, pocket lens, drying sheets, news paper, blotting paper, field press, identity card and shoulder bags.

The field work was carried out on the following line. For preparation of an account on the different plants, local field

trips were made once a week, during the first year, alternate weeks during the second year and once a month in the last year. Field trips of different floristic sites of Jabalpur Region were made once a month during the first year, alternate months- during the second year and once after two months in the last year. During the field trips local guides, villagers, medicine men, tribal heads and tribal person were enquired contacted to gather different information, such as local names, informer names, status (tribe, caste, age), details-about the plant specimens, local names, parts used (root, stem, bark, leaves, seeds, flowers etc.), kinds of use etc.

In the laboratory the collections were properly dried by a number of changes of blotting/news paper. Poisoning have been done with a saturated solution of Mercuric Chloride (HgCl<sub>2</sub>) in Alcohol. The plants were again placed in dryer and pressed till it gets completely dried and the roaster mounting on herbarium sheets have been done. These plant specimens were carefully and critically studied and identified in the laboratory consulting available Floras and literature, viz.

- ❖ **"Flora of India" Vol.1** (Ranunculaceae – Barclayaceae) Sharma et.al (1993);
- ❖ **"Flora of India" Vol.2** (Papaveraceae – Cryophyllaceae) (Sharma and Balkrishnan 1993);
- ❖ **"Flora of India" Vol.3** (Portulacaceae – Ixonanthaceae) Sharma and Sanjappa (1993);
- ❖ **"Flora of Bliaspur district, M.P."** Panigrahi and Murthy (1989,1999);
- ❖ **"Flora of Raipur, Durg & Rajnandgaon"** Verma D.M. et.al (1985);
- ❖ **"Flora of Madhya Pradesh"** (Petridophytes & Angiosperms) Verma et.al (1994,1997);
- ❖ **"Supplementary Flora of Madhya Pradesh"** Khanna et al. (2001),
- ❖ **"Flora of Ujjain district M.P."** Singh and Khare (1996);

- ❖ **“A contribution to the flora of Shivpuri”** Kaushik J.P. (1983);
- ❖ **“Flora of Sidhi district”** Sengupta and Ramlal (1973);
- ❖ **“Flora of Bhopal”** Oomachan M. (1977);
- ❖ **“Flora of Pachmarhi and Bori Reserves M.P.”** Mukherji (1984);
- ❖ **“Flora of Jabalpur”** Oomachan and Shrivastava (1996);

The species were identified and classified according to Bentham and Hooker system of classification. Necessary scrutiny of the materials have been done at the herbarium of the Department of the Botany Govt. M.H. College of Home Science, Jabalpur and State Forest Research Institute, Jabalpur for the confirmations and identification of the specimens.

#### Results and discussions

The plant species were enumerated with its botanical name, family, local name, part used and use. The plant species have been arranged alphabetically on the basis of their botanical name.

1. **Acalypha indica** L. (Khokali/Kuppi). Family – Euphorbiaceae.
  - ❖ **Accession No. 336.1977**
  - Part used – Root
  - Ethnomedicinal Preparation - Powdered root is given with one spoon of honey in paralysis.
2. **Amaranthus spinosus** L. (Kanta Chaulai). Amaranthaceae
  - ❖ **Accession No. 324.1977**
  - Part used – Stem.
  - Ethnomedicinal Preparation - The plant is cut in to small pieces and provided orally to the cattle suffering from paralysis.
3. **Argemone mexicana** L. (Bhatkatai). Papaveraceae
  - ❖ **Accession No. 38.1977**
  - Part used - Seeds.
  - Ethnomedicinal Preparation - The seeds are grinded with brassica oil and made in to paste. It is used as local application for the

treatment of paralysis.

4. **Atlantia monophylla** DC. (Jangli-Neembu). Rutaceae
  - ❖ **Accession No. (P 3574). BSI Southern Circle.**
  - Part used – Berries.
  - Ethnomedicinal Preparation - Oil from berries is useful in chronic rheumatism and paralysis.
5. **Bombax ceiba** L. (Semal) Bombacaceae.
  - ❖ **Accession No. 69.1977**
  - Part used – Bark.
  - Ethnomedicinal Preparation - Bark is moulded and fried in Raye (Dissonia pertagyna) oil then massaged on affected part to cure paralysis.
6. **Calotropis procera** (Ait.) R. Br. (Akkua). Asclepiadaceae
  - ❖ **Accession No. 244.1977**
  - Part used – Root.
  - Ethnomedicinal Preparation - The root powder is mixed with butter and this ointment is applied to paralyzed limbs.
7. **Cassia fistula** L. (Amaltas). Family - Caesalpiniaceae
  - ❖ **Accession No. 141.1977**
  - Part used- Leaves.
  - Ethnomedicinal Preparation - The leaves are laxative and used externally as emollient, a poultice is used for chilblains, in facial paralysis.
8. **Celastrus paniculata** Willd. (Malkangni). Family - Celastraceae
  - ❖ **Accession No. 94.1977**
  - Part used-Seed.
  - Ethnomedicinal Preparation - The seeds are used in the rheumatic pains and paralysis.
9. **Datura metel** L. (Kaladhatura). Family - Solanaceae.
  - ❖ **Accession No. 267.1977**
  - Part used- Seed.
  - Ethnomedicinal Preparation - It is used as a massage oil for the paralysed part.
10. **Ipomoea fistulosa**. Mart. (Besharam). Family - Convolvulaceae.
  - ❖ **Accession No. 258.1977**
  - Part used – Root.

- Ethnomedicinal Preparation - The fresh roots paste is applied on the affected part and massaged twice a day for about one month to cure the paralysis.
11. **Melia azedarach** L. (Mahaneem). Family - Meliaceae.
- ❖ **Accession No. 93.1977**
- Part used - Leaves.
- Ethnomedicinal Preparation - About 500 gm leaves are boiled in 5-6 liter water till the colour change. Then the patient is bath in this water for 8-10 days to cure paralysis.
12. **Moringa oleifera** Lam. (Munga). Family - Moringaceae.
- ❖ **Accession No. 107.1977**
- Part used- Flower, buds.
- Ethnomedicinal Preparation -Young flower buds are rubbed on affected parts twice a day till cure in cases of paralysis and rheumatism.
13. **Nicotiana tobacum** L. (Tambakhu). Family - Solanaceae.
- ❖ **Accession No. 180.1753**
- Part used - Leaves.
- Ethnomedicinal Preparation - The dried and powdered leaves of this plant along with the leaves of Cannabis sativa are smoked for the treatment of paralysis.
14. **Piper longum** L. (Laung). Family - Piperaceae.
- ❖ **Accession No. 494.2012**
- Part used - Fruit.
- Ethnomedicinal Preparation - Cloves contain aromatic oils, which helps to treat facial paralysis by stimulating nerve and reducing inflammation and swelling of facial nerve. 2 to 8 drops of its oil can be taken with warm water or powder can be given in dose of 500 mg to 1 gram with warm water to get relief from facial paralysis.
15. **Piper nigrum** L. (Kaali Mirch). Family - Piperaceae.
- ❖ **Accession No. 328.2012**
- Part used- Fruit.
- Ethnomedicinal Preparation - It is used as a gargle in the treatment of tongue-paralysis and in the paralysis.
16. **Ricinus communis** L. (Arandi). Family - Euphorbiaceae.
- ❖ **Accession No. 350.1977**
- Part used- Leaves & petioles.
- Ethnomedicinal Preparation - Leaves with petioles are burnt and ash is extracted. A table spoon of the ash is mixed with honey and given in early morning for about 3 days for the patient suffering from facial paralysis.
17. **Sida cordifolia** L. (Kharinta). Family - Malvaceae.
- ❖ **Accession No. 65.1977**
- Part used- Seed.
- Ethnomedicinal Preparation - Oil is extracted from the seed of Sida cordifolia is rubbed on the paralysed part.
18. **Solanum nigrum** L. (Makoi). Family - Solanaceae.
- ❖ **Accession No. 269.177**
- Part used - Aerial parts.
- Ethnomedicinal Preparation - The aerial parts of plant have paralysing effect on nerve ends and used in painkilling ointments.
19. **Tamarindus indica** L. (Imli). Family - Caesalpinioideae.
- ❖ **Accession No. 148.1977**
- Part used - Tender leaves.
- Ethnomedicinal Preparation - Normal attack of paralysis is treated by using the mixture prepared from tender leaves of tamarind and curd given twice daily.
20. **Withania somnifera** L. (Ashwagandha). Family - Solanaceae.
- ❖ **Accession No. (P 985). BSI Southern Circle.**
- Part used- Root.
- Ethnomedicinal Preparation - Its root powder decreases numbness and very helpful in weakness official muscles.



**Photographs of Ethnomedicinal Plants of Jabalpur Region used in the treatment of Paralysis observed during the research investigations :**



*Acalypha indica* L.



*Amaranthus spinosus* L.



*Argemone mexicana* L.



*Atlantia monophylla* DC.



*Bombax ceiba* L.



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



*Cassia fistula* L.



*Celastrus paniculata* Willd.



*Datura metel* L.



*Ipomoea fistulosa*. Mart.



*Melia azedarach* L.



*Moringa oleifera* Lam.





*Nicotiana tobacum* L.



*Piper longum* L.



*Piper nigrum* L.



*Ricinus communis* L.



*Sida cordifolia* L.



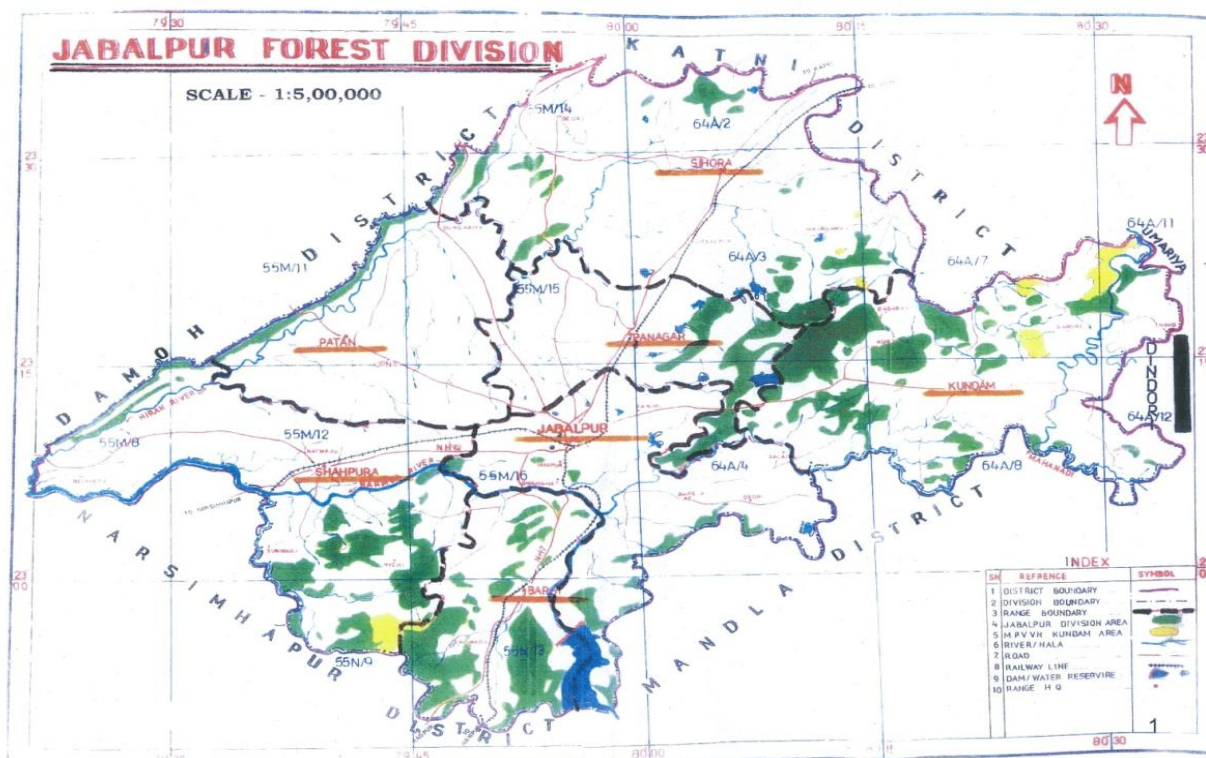
*Solanum nigrum* L.



*Tamarindus indica* L.



*Withania somnifera* L.



Map showing different forest divisions of Jabalpur Region

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