



# A REVIEW: PARALYSIS IT'S TYPES, CAUSES, SYMPTOMS AND ANTIPARALYTIC MEDICINES USED

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**Abstract:** Paralysis is a temporary or permanent loss of voluntary muscle movement. A nervous system problem causes paralysis. Due to disturbance of waving between the nervous system and muscles. People can occurrence localized, generalized partial or complete paralysis. Nearly all common causes of paralysis is Spinal Cord Injury (SCI), Head Injury, Peripheral neuropathy, stroke and multiple sclerosis. Bell's Palsy causes temporary facial paralysis. Not primarily, muscles themselves are the cause, as this could also be due to a problem around somewhere along the chain of nerve cells that travel from the body part to your brain and back again. In this review, gain an understanding more about the types of paralysis, their causes, symptoms, complications, diagnosis and the most important 37 medicinal plant for their application and cure of sickness related to paralysis. Out of the 37 plants documented, 11 plants have been reported for their ability to cure paralysis. Although, the information on the recorded plants were mainly found to be deficient, requiring proper authentication with respect to their specificity, dosage, contra-indication etc. It is believed that with huge intervention on analysis of bioactive compounds present in these plants used by ethic traditional healers for paralysis.

**Index term - Paralysis, Types, Causes and Symptoms, Diagnosis and Complications, Anti-Paralytic plants, 37 medicinal plants, Review**

## INTRODUCTION

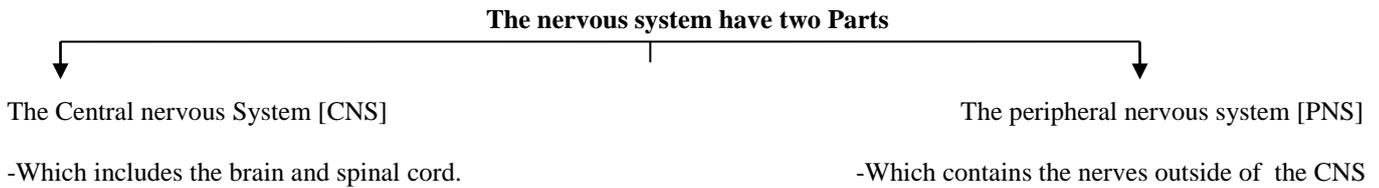
Paralysis occurs when you are unable to make voluntary muscle movements. Paralysis is a temporary or permanent loss of voluntary muscle movement. A nervous system complication causes paralysis. The nervous system is your body's command and communication system. It sends signals from the brain throughout your body, telling it what to do.

Paralysis can affect any part of the body, it can be partial it means you can control some muscles, but not all and complete means you have no control over any muscles. Paralysis can also be broken down into two types flaccid and spastic based on the site of injury in the nervous system. The most common causes of paralysis are stroke, head injury, spinal cord Injury, broken neck and multiple sclerosis <sup>[1]</sup>. Another causes of paralysis include nerve disease such as Guillain-Barre syndrome, Bell's Palsy, Which affects muscles in the face and polio virus <sup>[2]</sup>. Localized and generalized are the patterns of muscle paralysis. Localized paralysis affects a small section of the body, it most commonly affects the face (Bell's Palsy), hands, feet or vocal cords and Generalized paralysis affects a larger area of the body, such as the condition where one limb is paralyzed or where the arm and leg on one side of the body are paralyzed.

Paralysis is mainly described in different types are namely monoplegia, Diplegia, Hemiplegia, Paraplegia and Quadriplegia (Tetraplegia). Numbness or pain in the affected muscles, muscle atrophy and stiffness are the symptoms of paralysis but the most common paralysis symptoms is the loss of muscle function in one or more parts of the body. Diagnosis and complications are also described in this review. Paralysis can also causes a number of associated secondary conditions, such as urinary incontinence an inability to control the flow of urine and bowel incontinence where stools leak from the back passage. In cases of permanent paralysis, some complications that arise, such as pressure ulcers in this sores that develop when the affected area of tissue is placed under too much pressure, bladder and bowel problems and treating spasms and complications resulting from paralysis. It may also affect sexual functions in both men and women. Mobility aids such as wheelchairs and orthoses can help a person with paralysis. In India, there are many medicinal plants used in treatment of paralysis. Anti-paralytic medicinal plants used in paralysis.

**What is Paralysis?**

Paralysis is the temporary or permanent loss of voluntary muscle function. Due to disruption of signaling between the nervous system and muscles.



Nerve cells or neurons in the PNS serve several functions. Motor neurons for example to regulate muscle movement. Sensory neurons send information about pain, temperature and pressure to the CNS. Paralysis occurs when nerve signals are interrupted as a result of damage to the nerves, Spinal Cord or brain [3].

- Permanent Paralysis** :- When muscle control never comes back.
- Temporary Paralysis** :- When some or all muscle control returns.

**Paralysis can affect any part of the body. It can be**

1. **Partial (Paresis)** :- You can control some muscles, but not all.
2. **Complete** :- You have no control over any muscles

- \* The Peripheral nervous regulate numerous functions, including
1. Automatic functions, such as breathing & digestion.
  2. Voluntary muscle movements, such as walking & chewing
  3. Sensory functions, such as pain, temperature, and pressure detection

Paralysis can also be broken down into two types based on the site of injury in the nervous system.

1. **Flaccid** :- Your muscles get flabby and shrink
2. **Spastic** :- The muscles tighten, causing uncontrollable jerks and spasms (Spasticity)

**There are patterns of muscle paralysis**

1. **Localized Paralysis**:- It affects a small section of the body, it most commonly affects the face (Bell’s Palsy), hands, feet or vocal cords.
2. **Generalized Paralysis** :- It affects a larger area of the body, such as the condition where one limb is paralyzed or where the arm and leg on one side of the body are paralyzed.

Bell’s Palsy involves a weakness or temporary facial paralysis on one side of the face. Neurosarcoidosis is type of sarcoidosis. It causes inflammation in the brain, spinal cord or nerves which causes paralysis. Weakness in the muscles on one side of the face is a symptom of facial paralysis. [4]

**Stroke**

If a person suspects that someone is having a stroke, they should do so FAST check. [5]

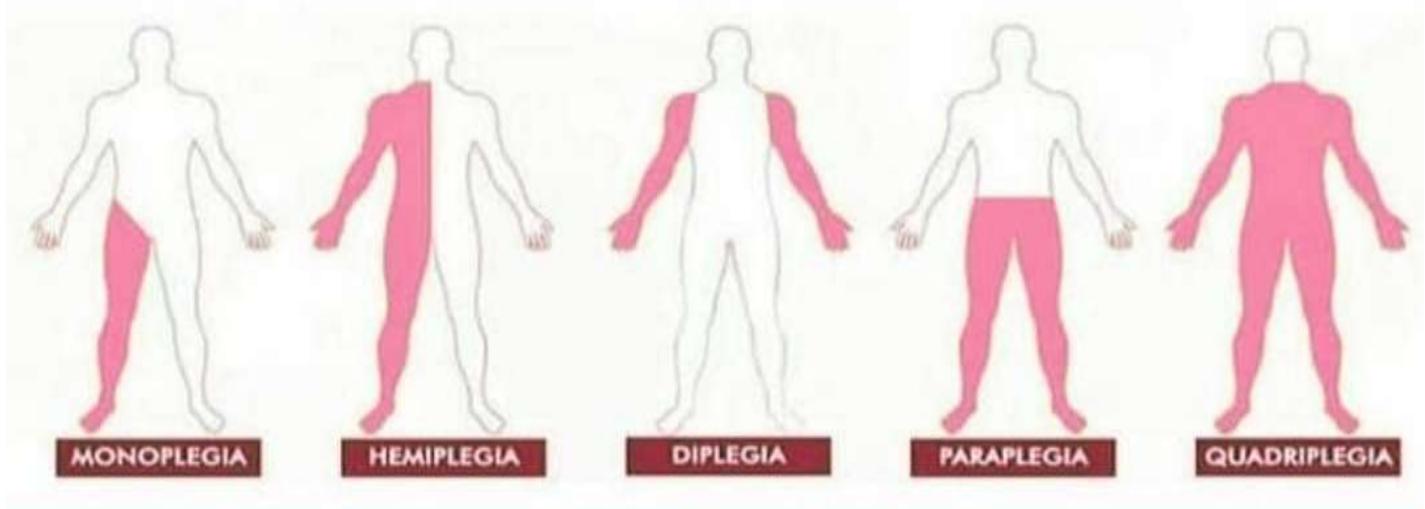
**FAST**

- **F** for the face. Ask the person to smile and check if one side of the face is tilted
- **A** for Arms. Ask the person to raise both hands and watch one hand flow  
Words below
- **S** for speech. Ask the person to repeat a simple sentence and listen to them  
Speech is unusual so sentences are not clear
- **T** for time. If you notice any of these signs, dial the 911 emergency number immediately

**Types of paralysis include<sup>[6]</sup> [table 1]**

<b>1.Monoplegia</b>	<b>Patient can’t move one limb only, such as one arm or one leg.</b>
<b>2.Diplegia</b>	Paralysis occurs on the same area on both sides of the body. For example, Paralysis affects both arms, both legs or both sides of the face.
<b>3.Hemiplegia</b>	Paralysis affects one side of the body can arm and a leg on the same side.
<b>4.Paraplegia</b>	It influences both legs and sometimes parts of the torso.
<b>5.Quadruplegia (Tetraplegia)</b>	The damage could be on both arms and both legs and sometimes the entire area from the neck down.

# Types of Paralysis



[Figure 1] Types of Paralysis

## The most common causes of Paralysis

1. Spinal Cord Injury [SCI]
2. Head Injury
3. Peripheral neuropathy
4. Stroke
5. ALS [Lou Gehrig's disease]
6. Multiple Sclerosis
7. Gullain - Barre Syndrom
8. Cerebral Palsy
9. Toxins / Poisons
10. Brain or Spinal Cord Tumor
11. Inherited disorders, including spinal muscular atrophy and hypo-or hyperkalemic partial paralysis [3]

## Symptoms for paralysis

1. Numbness or pain in the affected muscles
2. Muscle weakness
3. Confusion
4. Stiffness
5. Involuntary spasms or twitches
6. Muscle cramps
7. Visible signs of muscle loss (muscle atrophy)
8. Difficulty in talking or understanding
9. Difficulty in walking
10. Feeling Dizzy
11. Loss of balance and co-ordination
12. A severe headache

## Diagnosis and Tests

1. X-ray shows broken bones that could nerve injury
2. Imaging tests, such as CT Scan or MRI, check for signs of stroke or brain injury or spinal cord injury. A whole body imaging scan shows bones, muscles and tissues
3. Myelogram checks for spinal cord and nerve injuries.
4. Electromyogram (EMG) tests the electrical activity of nerves and muscles.
5. Spinal tap (lumbar Puncture) tests spinal fluid for infection, inflammations and disorders like multiple sclerosis (MS).

## What are the complications of Paralysis ?

Paralysis can affect other bodily functions such as breathing and heart rate, The condition can also include other body systems in the affected area. Depends on The type of paralysis, you may be at risk:-

1. Difficulty breathing, coughing and risk for pneumonia
2. Blood clot and deep vein thrombosis (DVT)
3. Speech or swallowing problems (Dysphagia)
4. Depression and anxiety

5. Erectile dysfunction and sexual problems
6. Excessively high blood pressure [autonomic dysreflexia] or low blood pressure (orthostatic hypotension) and heart problems.
7. Urinary incontinence and loss of bowel control.
8. Pressure injuries (bedsores) and sepsis. [7]

### To treat Paralysis Anti-Paralytic medicinal plants are used

#### Alternative medicines used in paralysis

Worldwide, tradition medicines in the form of crude herbal extracts of single plant or combination of plants, with or without additional minerals have been used in reducing and curing diseases related to nervous system some of which includes [Table 2]

**Anti-Paralytic medicinal plants used in paralysis** [8-18] [Table 2]

1. <i>Calotropis Procera</i>	12. <i>Cassytha filiformis</i>	23. <i>Lygodium flexuosum</i>
2. <i>Satureja thymbra</i>	13. <i>Oxyceros horrid</i>	24. <i>Cassia occidentatis</i>
3. <i>Coridothymus capitatus</i>	14. <i>Citrus aur-antifolia</i>	25. <i>Datura metel</i>
4. <i>Thunbergia laurifolia</i>	15. <i>Citrus medica</i>	26. <i>Phyllanthus reiculatus</i>
5. <i>Annona reticulate</i>	16. <i>Cissus hastate</i>	27. <i>Glycosmis arborea</i>
6. <i>Annona squamosa</i>	17. <i>Cissus repens</i>	28. <i>Aerva persica</i>
7. <i>Plumeria rubra</i>	18. <i>Aloe vera</i>	29. <i>C. Procera</i>
8. <i>Crateva magna</i>	19. <i>Ricinus Communis</i>	30. <i>Hyocyamus niger</i>
9. <i>Crateva religiosa</i>	20. <i>Tamarindus Indica</i>	31. <i>Cymbidium aloifolium</i>
10. <i>Argyrea osyrensis</i>	21. <i>Alocasia macrorrhizos</i>	32. <i>Gardenia ternifolia</i>
11. <i>Suregada multiflora</i>	22. <i>Murraya koenigii</i>	33. <i>Mikania hirsutissima</i>

In India, many plants and plant's products are trade in market that claims for ability to treat paralysis, some of them are punarnava powder-containing Hogwed or *Boerhavia diffusa*, Ashwagandha powder-containing *withania somnifera*. [19,20] In homeopathic approach, *Rhus toxicodendron* is used in treating paralysis of the lower extremities, treatment of all forms of paralysis which are of a rheumatic origin or brought on by getting wet or exposure to dampness in any form and in treatment of paralysis due to nervous fevers and typhus. *Aconite napellus* is considered as the sovereign remedy for almost every species of paralysis in homeopathy. *Aconite napellus* is found in Himalaya. [21] *Gelsemium sempervirens* (Gels) is another plant used in homeopathic for treatment of paralysis. [22]

The poly herbal drug *majoon-e-azaraqi* is former herbal unani compound formulation that is therapeutically used in nerve strengthening, hemiplegia, facial paralysis, tremor, trembling, rheumatism, epilepsy and neurasthenia.

#### Majoon-e-Azaraqi is constituted of 15 ingredients

1. *Lavandula Stoechas*
2. *Cocos nucifera*
3. *Eletarria cardamomum*
4. *Pastinaca secacul*
5. *Emblica officinalis*
6. *Aquilaria agallocha*
7. *Strychnos nuxvomica*
8. *Borago officinalis*
9. *Cochlospermum religiosum*
10. *Pinus Gerardiana*
11. *Curcuma zeodaria*
12. *Santalum ablum*
13. *Terminalia chebula*
14. *Syzygium aromaticum*
15. Sugar [23]

In addition, *Agaricus muscarius*, *Cocculus indicus* is used in homeopathic remedies. *Solanum dulcamara* and *Atropa belladonna*, which are all toxic sources, in Treatment of various paralytic manifestations. [24] Use of *Acanthus ilicifolius*, *Cedrus Deodara* and *Rubia cordifolia* are also reported in paralysis. [25,26] In addition to these well-known reports from various alternative forms Medicines for their paralytic use, the current review emphasizes the various ethno botanical confirmations of medicinal plants reported for their use. Treatment of paralysis related diseases in different parts of India. Detailed content search using pubmed, medline, sopus and Google Conducted other to remove articles related to ethno botanical surveys in various Parts of India.

#### Anti-paralytic plants from ethno botanical surveys in India

Extensive literature survey on the use of medicinal plants for paralysis in India has shown that relatively little has been documented about medicinal plants and less laboratory validation and analysis has been done regarding the application of paralysis. Out of a total of 29 states and 7 union territories in India, researchers have so far reported the use of medicinal plants for paralysis in only 16 states

[Table 3] States in which Medicinal plants for Anti-paralytic use are available

1.Tamil Nadu 2.Andhra Pradesh 3.Jammu & Kashmir 4.Rajasthan 5.Chhattisgarh 6.Odisha 7.Uttar Pradesh 8.Himachal Pradesh	<div style="border: 1px solid black; padding: 5px; display: inline-block;">         16 States Namely       </div>	9.Uttarakhand 10.Manipur 11.Karnataka 12.Assam 13.Maharashtra 14.West Bengal 15.Telangana 16.Madhya Pradesh
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[Table 4] From there a total of 37 plants in 25 plant families have been reported for their application and treatment of paralysis associated diseases.<sup>[27-55]</sup> Of these families, Asteraceae is one of the most represented plant, followed by Fabaceae and Mimosaceae

[Table 4] Medicinal plants for Anti-Paralytic use

Sr. No.	Scientific name	Common name/ Vernacular name	Family	Part use	Common use
1.	<i>Abrus Precatorius linn</i>	Rosary Pea	Fabaceae	Seed	Paste of seeds applied externally to treat stiffness of shoulder joint and paralysis in Thanjavur district, Tamil Nadu, India.
2.	<i>Acacia mangium willd</i>	Hickory Wattle	Mimosaceae	Bark	Bark is used in paralysis by the tribal communities of Salugu panchayati of Paderu Mandalam, Visakhapatnam, Andhra Pradesh, India.
3.	<i>Actaea spicata Linn</i>	Banparthi (H)	Ranunculaceae	Fruit and root	Fruit and root powder is mixed with water and given for treatment paralysis in cattle in some rural areas of Bandipora district of Jammu and Kashmir, India.
4.	<i>Adenanthera Pavonina Linn</i>	Bead Tree	Mimosaceae	Seed	Used for the treatment of paralysis
5.	<i>Allium Sativum Linn</i>	Garlic	Liliceae	Bulb	Bulbs are used in paralysis in Shekhawati region, Rajasthan, India.
6.	<i>Anacyclus pyrethrum Linn</i>	Spanish chamomile	Asteraceae	Root and whole plant	The paste of the whole plants mixed with mustard oil is also used as remedy for paralysis. Roots are used in paralysis by Malayali tribals in kolli hills of Eastern ghats, Tamil Nadu, India.
7.	<i>Anthocephalus indicus Rich</i>	Common Bur-Flower	Rubiaceae	Root	The roots are used by boiling the ground in paralysis mustard oil, and massage the affected area twice a day for one month by Kamar tribes of Chhattisgarh, India.
8.	<i>Asparagus racemosus willd</i>	Satavari	Liliaceae	Root	The root juice is mixed with ghee throughout the year and massaged all over the body to cure paralysis in Kalahandi district of Odisha, India.
9.	<i>Atalantia monophylla Linn</i>	Indian Atalantia	Rutaceae	Leaf	Essential oil from leaves is used in paralysis.
10.	<i>Bombax ceiba Linn</i>	Cotton Tree	Bombacaceae	Bark	Bark is molded and fried in Dissenia pertagyna oil & then massaged on affected part to cure paralysis by Rawat and Sahariya tribes of Jhansi district, Uttar Pradesh, India.

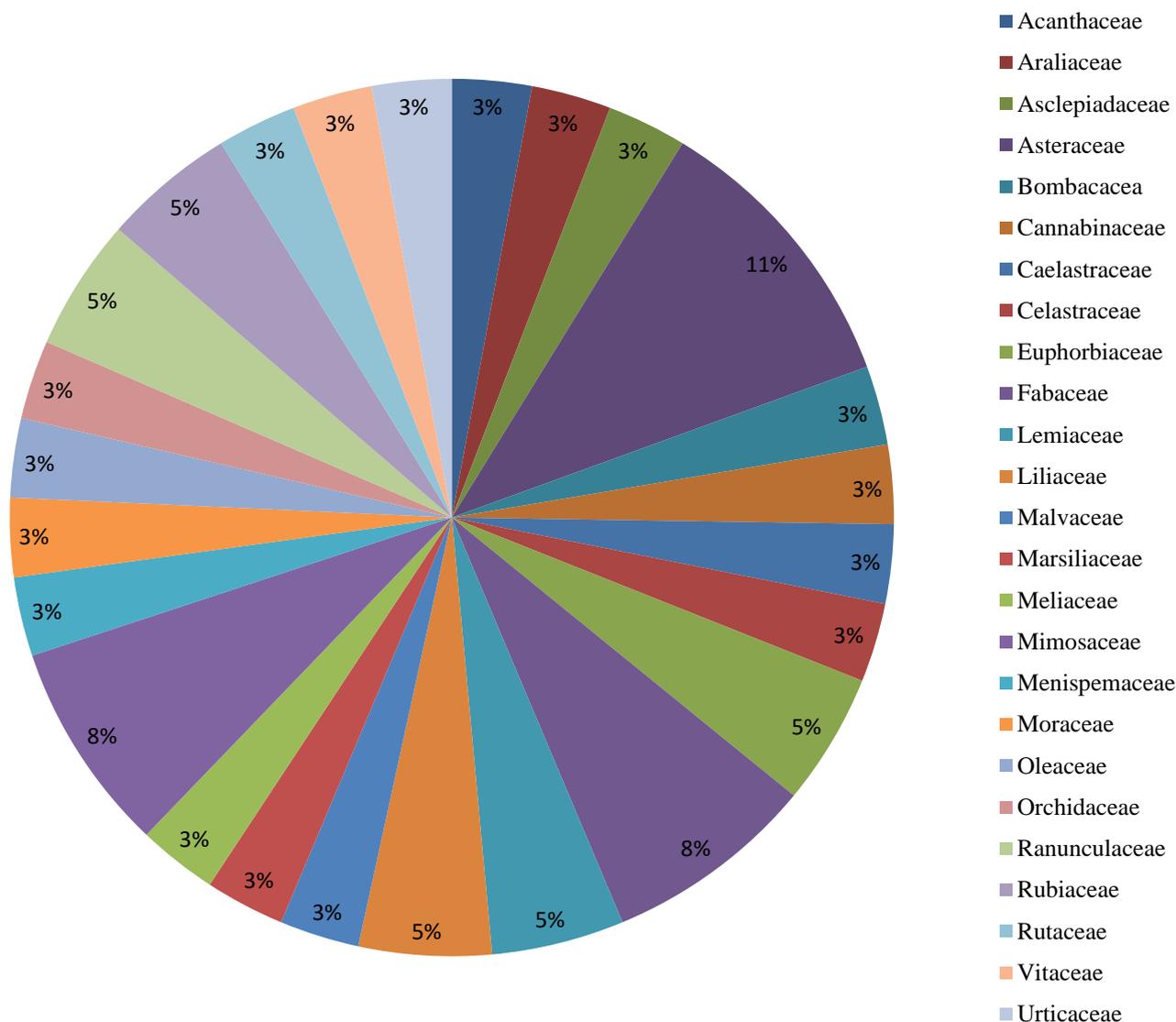
11.	<i>Cannabis sativa</i> Linn	Hemp	Cannabinaceae	Seed	Oil extracted from dry seeds is applied to cure paralysis by tribal communities of Chhota Bhangal, Western Himalaya, India.
12.	<i>Cassia fistula</i> Linn	Golden shower Tree	Caesalpinaceae	Leaf	Leaves are used in facial paralysis in Bageshwar valley (Kumaun Himalaya) of Uttarakhand, India
13.	<i>Celastrus paniculata</i> willd	Black oil plant	Celastraceae	Seed	Seeds are used in paralysis
14.	<i>Centipeda minima</i> Linn	Spreading Sneeze weed	Asteraceae	Seed	Seed paste is applied externally to get relief from arthralgia and paralysis by Theoraon tribe of Jashpur District, India.
15.	<i>Cissampelos pareira</i> Linn	Velvet Leaf	Menispermaceae	Root	Roots are used in paralysis by boiling the grinded root with mustard oil, and massaged on affected part twice a day for one month, by Birhor tribes of Chhattisgarh, India.
16.	<i>Cissus quadrangularis</i> Linn	Veldt Grape	Vitaceae	Stem	One tablespoon of stem paste is taken orally for 20-30 days treatment of paralysis in Godavari district of Andhra Pradesh, India.
17.	<i>Cryptolepis buchanani</i> Roem & schult.	Wax leaved climber	Asclepiadaceae	Stem	Decoction of the stem is used as an adjunct in paralysis.
18.	<i>Cymbidium aloifolium</i> Linn	Aloe-leafed cymbidium	Orchidaceae	Root	Mix 2 g root powder with 2g dried ginger and 1 g black pepper, half a teaspoon twice a day with a cup of milk. Two months a day to reduce paralysis.
19.	<i>Entada pursaetha</i> DC.	Giant's Rattle	Mimosaceae	Seed	Gond, Halba and Maria tribes of Abujmarh area in Madhya pradesh use the paste of the seeds for curing paralysis.
20.	<i>Gendarussa Vulgaris</i> nees	Willow-leaved Justicia	Acanthaceae	Leaf	Infusions of leaves are taken orally in cephalalgia, hemiplegia and facial paralysis.
21.	<i>Ficus religiosa</i> Linn	Sacred Fig	Moraceae	Bark	Bark powder is used for paralysis in Bageshwar valley (Kumaun Himalaya) Uttarakhand, India. Root / Stem bark extract mixed take 2 teaspoons with buttermilk twice a day for 30 days for paralysis.
22.	<i>Jasminum grandiflorum</i> Linn	Royal Jasmine	Oleaceae	Whole Plant	Whole Plant extract is used externally to treat facial paralysis in Thanjavur District, Tamil Nadu, India.
23.	<i>Jatropha curcas</i> Linn	Barbadas Nut	Euphorbiaceae	Leaf	It is used for curing paralysis in Bodamalai hills eastern ghats, Namakkal district, Tamil Nadu. Latex is applied externally in paralysis in sirumalai hills of eastern ghats, Dindigul district, Tamil Nadu, India.

24.	<i>Jatropha Gossypifolia</i> Linn	Bellyache Bush	Euphorbiaceae	Fruit	It is used to cure paralysis in Bodamalai hills eastern ghats, Namakkal district, Tamil Nadu, and in Pudhukkottai district, Tamil Nadu, India.
25.	<i>Marsilea Minuta</i> Linn	Dwarf Water clover	Marsileaceae	Whole plant	Whole plant is used in paralysis by the tribes in the hills of Manipur, India.
26.	<i>Melia azedarach</i> Linn	White cedar	Meliaceae	Leaf	Rawat and Sahariya tribes of Jhansi district, Uttar Pradesh boil about 500g of the leaves in 5-6 L of water till the color change. Then the patient is bath in this water for 8-10 days to cure paralysis.
27.	<i>Mentha arvensis</i> Linn	Peppermint	Lamiaceae	Leaf	Leaves of <i>M. arvensis</i> and seeds of <i>Trachyspermum ammi</i> are taken in equal proportions along with rock salt, and this are taken with coffee, three to four times a day in paralysis by local communities in some villages of Shimoga district, Karnataka, India.
28.	<i>Mucuna Pruriens</i> Linn	Velvet Bean	Fabaceae	Root	Roots are used in paralysis by tribes of district Shahdol, Madhya Pradesh, India.
29.	<i>Naravelia Zeylanica</i> (Linn) DC	Vatanasini (H)	Ranunculaceae	Leaf	Leaf juice is used for paralysis by applying externally by the Malayali tribals in kolli hills of eastern Ghats, Tamil Nadu, India
30.	<i>Ocimum Gratissimum</i> Linn	Clove Basil	Lamiaceae	Leaf	Leaves are used for paralysis by the local fringe communities of Chirang Reserve Forest, Assam, India.
31.	<i>Paederia foetida</i> Linn	Stinkvine	Rubiaceae	Leaf	Leaves are used in paralysis by tribes in the hills of Manipur, India.
32.	<i>Pongamia Pinnata</i> (Linn) merr	Indian Beech	Fabaceae	Leaf and Stem	Leaves are used in paralysis by tribals of Khammam district, Telangana State, India. Extracts of bark boiled with sesame oil is massaged on skin to cure paralyzed organ [leg/ hand] by the Ethnic people of Kalahandi district, Odisha, India
33.	<i>Schefflera Venulosa</i> (wight & arn) Harms	Dain (H)	Aroliaceae	Leaf	Leaves are used in paralysis by the tribes in the hills of Manipur, India.
34.	<i>Sida Cordata</i> (Burm. F.) Borsswaalk	Country mallow	Malvaceae	Leaf	Leaf's juice mixed with goat's milk is used for curing paralysis in Nallamala, Andhra Pradesh, India.
35.	<i>Spilanthes acmella</i> Linn	Toothache plant	Asteraceae	Stem	The Birhor tribes and Kamar tribes of Chhattisgarh mix stem powder with oil of <i>Madhuca indica</i> and massaged twice a day for 20 days to cure paralysis.
36.	<i>Spilanthes paniculata</i> Wall. ex DC	Spot flower	Asteraceae	Root and Flower head	Used for paralysis of tongue in Beed district of Maharashtra, India.

37.	<i>Urtica Dioica</i> Linn	Common Nettle	Urticaceae	Whole plant	The whole herb is crushed and the extract as well as the paste is used to cure paralyzed limbs in district Ganderbal, Jammu and Kashmir, India.
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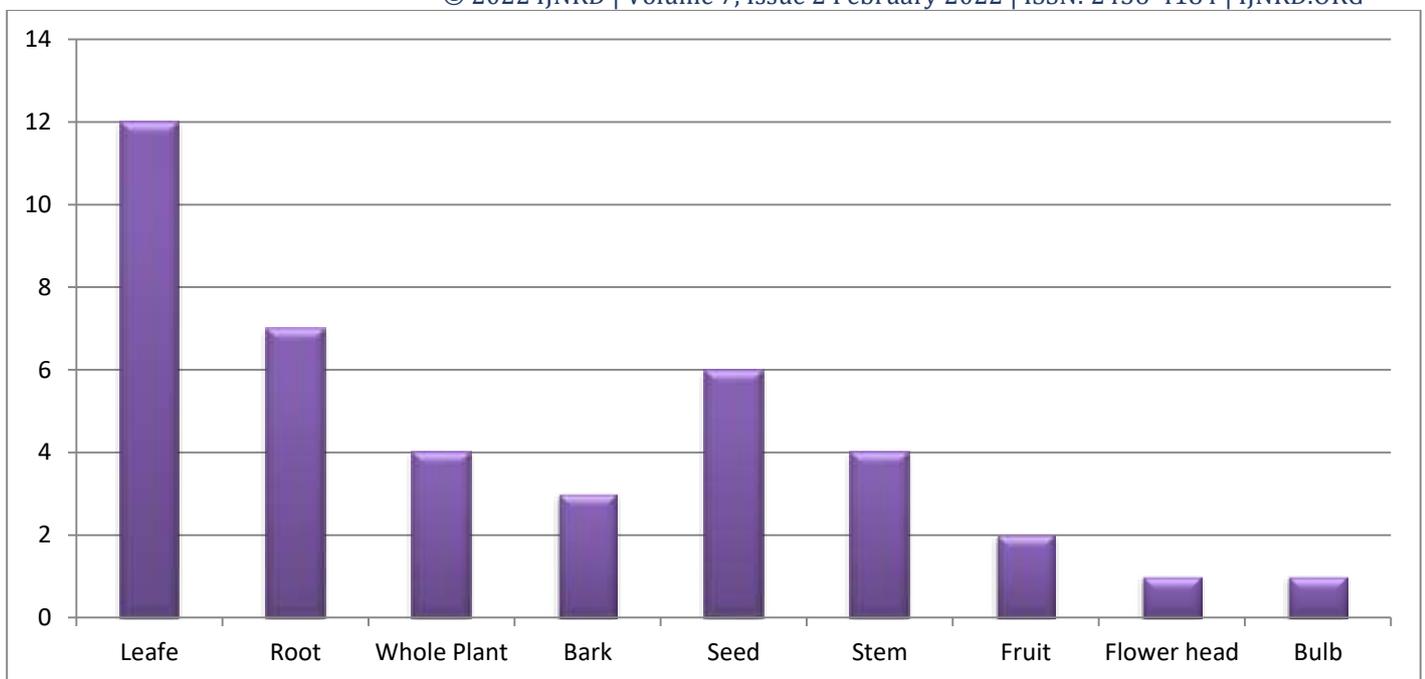
The number of plants in the family Euphorbiaceae, Lamiaceae, Liliaceae, Rubiaceae and Ranunculaceae is low for their use in this regard. Members of plants belonging to Acanthaceae, Asclepiadaceae, Araliaceae, Bombacaceae, Caesalpinaceae, Cannabinaceae, Celastraceae, Marsiliaceae, Meliaceae, Malvaceae, Menispermaceae, Moraceae, Oleaceae, Orchidaceae, Rutaceae, Vitaceae and Urticaceae represented the least for their used in paralysis.

**Chart 1. Distribution of anti-paralytic plants in different plant families**



[Chart 1] Distribution of anti-paralytic plants in different plant families

Nine different plant parts were found to be used for various treatments of the disease. In most cases the leaves are used. This is followed by roots, seeds, whole plants, stalks, bark, fruits, flower heads and bulbs, respectively [Chart 1] <sup>[56]</sup>



[Chart 2] Graph of Comparative study of mostly used part of plant in paralysis

The use of different parts of the plant for paralysis, the use of leaves was more prevalent, followed by roots and seeds. Flower heads and bulbs showed the lowest application in terms of numbers. Of the 37 plants reported, 11 plants showed the ability to cure paralysis. [Table 4]

[Table 5] Plants documented for their ability to cure paralysis.

Sr. No.	Botanical Name/ Scientific name	Types of Paralysis cured
8.	<i>Asparagus racemosus wild</i>	Not Specified
10.	<i>Bombax ceiba Linn</i>	Not Specified
11.	<i>Cannabis Sativa Linn</i>	Not Specified
19.	<i>Entada Pursaetha DC.</i>	Not Specified
23.	<i>Jatropha curcas Linn</i>	Not Specified
24.	<i>Jatropha gossypifolia Linn.</i>	Not Specified
26.	<i>Melia azedarach Linn</i>	Not Specified
32.	<i>Pongamia Pinnata (Linn) Merr</i>	Paralysis of organ (leg/ hand)
34.	<i>Sida cordata (Burm. F.) Borss. Waalk</i>	Not Specified
35.	<i>Spilanthes acmella Linn</i>	Not Specified
37.	<i>Urica dioica Linn</i>	Paralysis of Limbs

However, in most ethno botanical studies, insufficient information, including the use of plants, methods of use, methods of preparation, dosage, duration, specificity, efficacy, and contra-indications, is not mentioned and documented.

Additional types of paralysis (Localized or Generalized paralysis, monoplegia, hemiplegia, paraplegia or tetraplegia) for that the plant is used. Only 6 plants are indicated.

[Table 6] List of Plants for which the types of paralysis treated is mentioned

Sr. No.	Botanical name/ Scientific name	Types of paralysis treated
12.	<i>Cassia fistula</i> Linn	Leaves are used in facial paralysis.
20.	<i>Gendarussa vulgaris</i> Nees	Leaves are used in cephalalgia, hemiplegia and facial paralysis.
22.	<i>Jasminum grandiflorum</i> Linn	Whole plant extract is used to treat facial paralysis
32.	<i>Pongamia Pinnata</i> (Linn) merr.	Bark is used in paralysis of leg/ hand.
36.	<i>Spilanthes paniculata</i> wall ex DC	Root and flower head is used in paralysis of tongue
37.	<i>Urtica dioica</i> Linn	Whole plants is used in paralysis of limbs.

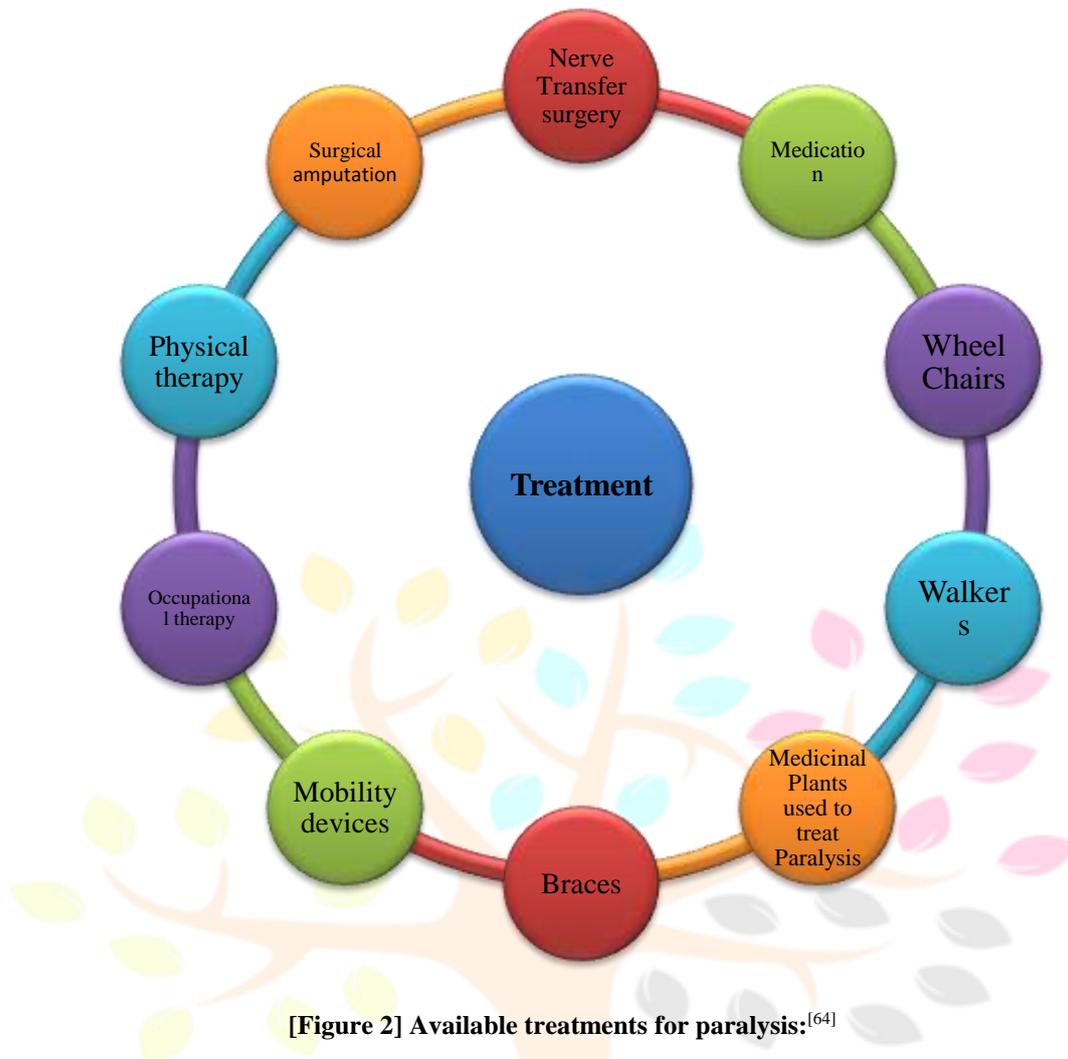
The remaining 26 plants are reported to be used in paralysis without giving any details about their healing ability, as well as the types of paralysis for which they are used for. There is no doubt about it As useful, ethno botanical survey data and traditional knowledge. Medicinal plants are one of the irresistible pools of knowledge which is stored unplanned information. Aims to find lead compounds important for the treatment of diseases and complications associated with neurological disorders, paralysis, indeed, can be achieved in the future.

#### Present day status of drugs used in paralysis

The current major treatment for SCI (Spinal Cord Injury) is using high doses methylprednisolone (MP), which reduces inflammation in the spinal cord. [57] Many recent studies have also reported intravenous minocycline reduces cell death and improves hindlimb function in mice and the rat model of SCI [58,59,60] and is expected to make progress in clinical trials for SCI. [61] Many people with spinal cord injuries to the cord, and some other forms of paralysis, are chronic pain that lasts for weeks, months or sometimes years later, Injury or incident that caused paralysis. Different from most other types pain, neuropathic pain usually does not respond well to normal painkillers, such as paracetamol or ibuprofen. The general features and symptoms of achondroplasia and emphasize that methylprednisolone administration is successful with rehabilitation for spinal stenosis with acute muscle paralysis in such patients, if surgery is unavailable. [62] Amitriptyline or pregabalin are alternative medication are used. These type of medications have some side effects like dry mouth, sweating, drowsiness and vision problems. There are also reports of people thinking of committing suicide while taking amitriptyline. [63]

Thus, urgent need for the development of highly effective and safe neuroprotective treatments for humans . Although rehabilitation does not completely cure paralysis, it can help prevent symptoms from getting worse.





[Figure 2] Available treatments for paralysis:<sup>[64]</sup>

### Summary

Paralysis is a temporary or permanent loss of voluntary muscles movement in a body or body parts. Many paralyzed people do not get full movement or sensation back in the affected area. Mostly common causes of paralysis are Spinal Cord Injury (SCI), Stroke, Peripheral neuropathy, ALS (Lou Gehrig's disease) and multiple sclerosis. another causes of paralysis include nerve disease such as Guillain –Barre syndrome, Bell's palsy, which affect muscles in the face and polio virus.

Paralysis is mainly described in different forms, namely, monoplegia, diplegia, hemiplegia, paraplegia and quadriplegia (tetraplegia). Muscle weakness, numbness, stiffness, loss of balance and co-ordinations or confusion is also explained in this review. To treat paralysis Anti-Paralytic medicinal plants are used and in this review the 37 medicinal plants in which their roots, stem, flowers, bark and seeds are used to treat the paralysis. Paralysis is a life-changing condition. However, physical therapy, mobility tools, Social and emotional support can help improve the quality of life.

### Conclusion

Paralysis can change the person whole life. The search for paralysis is one of the biggest challenges in medical research. Disabilities can range from minor, occasional weakness to permanent muscle damage, inability to perform normal jobs and the use of a power chair, with most people performing fairly well due to medication and lifestyle. The biggest challenge for people with paralysis is developing tools to restore movement and sensation and relieve pain. Currently, in addition to the discovery of drugs that help restore paralyzed nerves, various other interventions with the same goal are in the spotlight. Various researchers are working hard to use electrical stimulation as well as optical and magnetic techniques to activate neural tissue below the level of injury. Surgical intervention is not able to provide complete or complete recovery of injured nerves and in many cases is not very effective for normal applications. The unavailability of simple protocols has further complicated the testing and evaluation of experiments, which would also have contributed to the slow pace of progress in this area of research.

For example, there is no simple invitro test to date to test the potential use of any compounds or drugs against any types of paralysis, as so far in the reports available, complex procedures involving rats or mice have been adopted for research related to paralysis. One approach is to use cultured neuronal cell lines, in which model animals can be directly tested and experimented without, if such techniques are developed, it will help to facilitate and accelerate research to understand the effects of various compounds to reduce or cure paralysis in the future. Paralysis is a life-changing condition. Even temporary paralysis can affect your ability to do the things you love when paralysis occurs suddenly, adapting to major changes in your lifestyle can be challenging. Many people with paralysis enjoy an active life with mobility equipment and the support of loved ones. Emotional and social support can also play an important role in a person's treatment.

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