Review of herbs for Nervine tonic in traditional Siddha Medicine

Dr. T. Prakash Rao,
PG Research Scholar, Department of Noi Naadal, Government Siddha Medical College, Palayamkottai, Tirunelveli.

Dr. S.K. Gopi
CRRI, Government Siddha Medical College, Palayamkottai, Tirunelveli.

Dr. M. Regunatha Sethupathy,
B.Sc., BSMS Traditional Siddha Practitioner.

Dr. S. Sundararajan, MD (S)
Lecturer Grade II, Department of Noi Naadal, Government Siddha Medical College, Palayamkottai, Tirunelveli.

Corresponding Author:
Dr. T. Prakash Rao, MD (S)
PG Research Scholar, Department of Noi Naadal, Government Siddha Medical College, Palayamkottai, Tirunelveli.

Abstract

Medicinal plants are sources of great economical value in Indian subcontinent. It is the one of the precious creatives of god to an environmental reservoir, in recent years the importance and value of herbal remedies for all sorts of diseases are being discussed widely herbal remedies have their origin in the household of Indians. Medicinal plants are naturally gifted with invaluable bio active compounds which form the back bone of traditional medicine. Presence of phytochemical components or not only for the discovery of therapeutic agents but are also an asset for the future genera. This review paper deals with the single herbs and prepared medicine in traditional siddha Indian medicine as potent as nervine tonic.

Keywords: Medicinal plants, phytochemical components, nerve tic tonic.

Introduction

Herbal medicines are being used by nearly about 80% of world population primarily in developing countries for health care. It has been reported that there has been an alarming increase in number of diseases and disorders caused by synthetic drugs from prompting a switch over to traditional herbal medicine. Many patients suffered from neurological disorders like hemiplegia and nerve compression of disc in vertebras. The following herbs in siddha act as a nervine tonic and neuro stimulator as in the literature review of traditional medicine.

Materials and Methods

- Literature reviews of various traditional siddha medicine.
List of herbs

The common names are mentioned below with their Tamil names within bracket.

I. Water hyssop (Neer Bhirami) [1,5&15]
II. Black gram (Ulunthu)
III. Velvet Bean (Poonai Kaali)
IV. Ignatius Bean (Kayapankottai)
V. Black oil plant / climbing staff tree (Vaaluzhuvai)

Information about individual herbs effective in Nervine Tonic. [1,5&15]

| S. No | Common Name       | Botanical Name      | Family Name               | Part of used | Uses in Siddha                                    |
|-------|-------------------|---------------------|---------------------------|--------------|--------------------------------------------------|
| 1.    | Water hyssop      | Bacopa Monnieri     | Plantaginaceae (or) Scrophulariaceae | Whole plant | Nervine Tonic                                    |
| 2.    | Black gram        | Vigna Mungo         | Fabaceae                  | Seed         | Nervine Tonic, Aphrodisiac                        |
| 3.    | Velvet Bean       | Mucuna Pruriens     | Fabaceae                  | Seed         | Nervine Tonic, Diuretics                         |
| 4.    | Ignatius Bean     | Strychnos Ignatii   | Loganiaceae               | Seed         | Nervine Tonic, Stimulant                         |
| 5.    | Black oil plant   | Celastrus Paniculatus | Celastraceae              | Leaf, Seed   | Aphrodisiac, Stimulant, Nervine Tonic, Diaphoretic, Alterative |

Review of in-vitro studies of individual herbs

Water hyssop (Bacopa monnieri) [5&15]

Description:

It is a perennial herb planted in Australia, Europa, Asia, Africa and North and South Africa and Asia.

In Tamil it is called as ‘Brahmi or Neer Brahmi’

Regarding ancient literature Bacopa is a medicinal herb used in siddha where it is also called as brahmi after brahma the creator of god of the hindu pantheon.

Pictorial representation of Bacopa monnieri - neer brahmi

- It belongs to family - scrophulariaceae
- Parts used - Whole plant
- Actions – Nervine Tonic, Neurorejunavator

Chemical constituents:

The best characterized compounds in Bacopa monnieri are dammarane-typer triterpenoid saponins known as bacosides, with jujubogenin or pseudo - jujubogenin moieties as aglycone units. Bacosides comprise a family of 12 known D-mannitol, apigenin, hersaponin, monnerasides I-III, cucurbitacin and plantainosides B.
Bacoside profile present in *Bacopa monneri* :- [15&16]

Bacopaside I - 5.37%

Bacoside A3 – 5.59%

Bacopaside II - 6.9%

Bacopasaponin C isomer – 7.08%

Bacopasaponin C – 4.18%

**Medicinal importance of bacopa monneri:**

Whole Plant (Samoolam) Powder used to treat epilepsy (kakkai valippu)

Ghee prepared from this plant used to treat psychological problems such as hallucination, manic disorders (Kirigaigal) and schizophrenia. (soothiga vaatham)

It also increases memory power.

Some times it is used in delirium tremens

**Black gram: (Vigna mungo)**

**Description:**

It is a bean grown in the Indian subcontinent especially district of andhrapradesh and tamilnadu. Black gram also bean introduced to other tropical areas mainly by Indian immigrants.

**In tamil it is called as ulunthu.** It is traditionally used in food items such as vadai, dosai, payasam, kali all over in India. [5&15]

**Pictorial representation of vigna mungo - ulunthu**

It belongs to family - Fabaceae

Parts used – Seed and roots

**Actions – Nervine Tonic, Aphrodisiac**

Chemical Constituents:

- Starches
- Proteins
- Fatty acid

**Nutritional values of Black Gram:**

Black gram is very nutritious as it contains high levels of

| Nutrient          | Value         |
|-------------------|--------------|
| Carbohydrate      | 58.99gm/100gm|
| Protein           | 25.21gm/100gm|
| Dietary fiber     | 18.3gm/100gm  |
| Fat               | 1.64gm/100gm  |

**Minerals:** [15]

| Mineral   | Value     |
|-----------|-----------|
| Potassium(k⁺⁺) | 983mg/100gm |
| Calcium (ca⁺⁺) | 138mg/100g   |
| Iron (fe⁺⁺)    | 7.7mg/100gm   |
Vitamins:
Thiamine (vitamin B1) - 0.273mg/100gm
Riboflavin (vitamin B2) - 0.254mg/100gm
Niacin (vitamin B3) - 1.447mg/100gm

Medicinal uses:
It is used in the Nervine tonic for the treatment of male sterility problem and also act as a good aphrodisiac agent.
It is also used to treat urinary reflex disorder

Extracted oil from vigna mungo (ulunthu thylam) is used to treat neurological problems like hemiplegia (Pakka Vaatham), polio myelitis (Ilampillai Vaatham)

Velvet Bean (Mucuna pruriens)

Description:
It is a tropical legume native to Africa and tropical Asia and naturalized and cultivated

It's English common names include velvet bean, Bengal velvet bean, Florida velvet bean, Mauritius velvet bean, yokohama velvet bean, cowage, cowitch and lyon bean.

In tamil it is called as “poonaikali” [15&5]

Pictorial representation of mucuna pruriens- poonaikali

It belongs to family - Fabaceae
Parts used – Seeds, whole plant
Action – Nervine tonic, Neuro Stimulator, Aphrodisiac

Chemical components:
The seeds of the plant contains,

L-DOPA - 3.1 – 6.1% [5&15]
Serotonin
Nicotine
Bufotenine Trace levels

Medicinal importance:
The main action of the herb act as a nervine tonic in siddha scientific medicine.
Dried seed powder mix with milk for the treatment of parkinson disease (nadukku vaadham) in siddha.

Poonaikali ooral kudineer 30ml OD to treat neurological disorders.
Whole plant (Poonaikali Samoolam) Chooranam mix with Ghee as an adjuvant to treat psycho neurological disorders. [1&14]
Traditional uses:

The plant and its extract have been long used in tribal communities as a toxin antagonist for various snakebites. It has been studied for its effects against bites by *naja sps* (cobra snake), *echis* (saw scaled viper) *calloselasma* (Malayan pit viper) and *bangarush* (krait).

The seeds of Mucuna pruriens have been used for treating many dysfunctions in Unani medicine.

*Ignatius bean (strychnos ignatii)*

Description:

Strychnos ignatii is a tree in the Loganiaceae family, native to the Philippines, particularly in Catbalogan and parts of China. The plant was first described by the Czech Jesuit working in the Philippines, Brother Georg Kamel who named its fruits as the beans of Strychnos ignatius, after the founder of his religious order. [15]

In Tamil it is called as kayappankottai

It belongs to the family – Loganiaceae [5&6]
Parts used – Seed and Whole plant
Action – Nervine Tonic, Neuro stimulator [1]

Pictorial representation of Strychnos ignatii - kayappankottai [15]

Chemical Components:

The beans of plant contains the alkaloids

- Strychnine – Crystalline alkaloid [5&6]
- Brucine – Used as a tool for stereo specific chemical synthesis

Medical importance:

- It is one of the best nervous tonic in siddha scientific medicine [1&14]
- It is used in the treatment for epilepsy and psychic disorders.
- Oil extract from this plant is used to treat male sterility and neurological problems.
- Brucine has been shown to have good anti tumour effects on both hepatocellular carcinoma and breast cancer

*Black oil plant (Celastrus paniculatus)*

Description: [15]

- It is a Woody liana commonly known as black oil plant, climbing staff tree and intellect tree
- This climbing shrub grows throughout India at elevation up to 1,800m
- In Tamil it is called us – “vaaluzhuvai” [5&6]
- It belongs to the family – Celastraceae [5&6]
- Parts used - Seed, Whole plant
Pictorial representation of Celastrus Paniculatus - Vaaluzhuvai

Chemical Constituents
- Aromatic oil extract from this plant [5&6]
- Dyes and reagents
- Tannins
- Alkaloids – Cleastrinine and paniculatine

Medicinal uses:
- Vaaluzhuvai chooranam mix with milk as an adjuvant to treat neurological imbalance in male sterility problems.
- Vaaluzhuvai chooranam is used in the treatment for epilepsy (Valippu noi)
- Traditionally it is used in neuro stimulator in siddha scientific medicine
- Oil from the seeds is used as a traditional medicine in Indian, Unani, and Ayurvedic medicine [1&14]

List of siddha medicine act as a nervine tonic

| S. No | name of the medicine and their physical form | Main Ingredients - Common name with tamil name as an bracket | uses | reference |
|-------|---------------------------------------------|-------------------------------------------------|------|----------|
| 1.    | Brahmi nei (internal use)                   | Bacoppa Monnieri (Neer Bhirami)                  | Nervine tonic, Neuro psychological disorders like hallucination, Manic disorders, schizophrenia | Gunapadam Mooligai vaguppu/Sirappu Maruthuvam [1] |
| 2.    | Ulunthu Thailam (External use)              | Vigna Mungo (Ulunthu)                           | Neurological disorders like hemiplegia, sciatica, disc problem | Theriyar Thaila Vargam [17] |
| 3.    | Poonaiakaali Vithai Chooranam and Poonaiakaali o oral Kudineer (Internal Use) | Mucuna Pruriens (Poonaiakaali)                 | Nervine Tonic, Neurological disorders, parkinsonism and aphrodisiac action | Gunapadam Mooligai vaguppu & sarabendrar vaithiya muraigal [1&11] |
| 4.    | Kayappan Kottai chooranam (Internal Use)   | Strychnos Ignatii (Kayappan Kottai)             | Nervine Tonic, aphrodisiac action | Siddha Marunthugal Seimurai & sarabendrar vaithiya muraigal [11&14] |
| 5.    | Vaaluzhuvai Chooranam                      | Celastrus Paniculatus (Vaaluzhuvai)            | Nervine Tonic, Anti epileptic, aphrodisiac action | Gunapadam Mooligai vaguppu [1] |
Conclusion

Siddha medicines are well functioning to treat neurological disorders like hemiplegia, sciatica, disc problems with nerve compression in the modern scientific world. The following herbs act as not only a nervine tonic but also it is a well known neuro rejuvenator. So it is concluded that the medicine preparation documented centuries by our great siddhars are relevant even today which is evident through the in-vitro studies carried out with universal parameters.

Acknowledgments

Thanks dedicated to my lovable mother and father.

References

1. Dr. Murugesan Muthaliar Siddha Material Medica (Vegetable section) Volume I, 4th edition 1988, publisher Tamilnadu Siddha Medical council, Chennai.  
2. Dr. R. Thiagarajan, LIM, Gunapadam Thathu Jeeva Vaaguppu, sixth edition, 2006, published by Directorate of Indian Medicine and Homeopathy, Chennai, India.

3. Herbal landscape: The perception of landscape as a source of medicinal plants by Soukand, Renata, Kalle, Raivo, Vol.14, No.3 September 2010.
4. The cultural history of plants by ghillean pranc, mark nesbitt Routledge, 2005.
5. Taxonomy of angiosperms by S. Somasundaram edition, 2008.
6. Medicinally important plants by S. Somasundaram edition, 2008.
7. Text book of sirappu Maruthuvam by Dr. R. Thiagarajan LIM 6th edition, 2006, published by Directorate of Indian Medicine and Homeopathy, Chennai, India.
8. www.homeandgardenideas.com
9. www.pinterest.com/kimwarburton50/edible-and-medicinal-plants-links.
10. Text book of siddha Vaithya thirattu.
11. Sarabendrar Vaithiya Muraigal
12. Theraiyar Yemaga Venba
13. Unavum Siddha Maruthuvamum by Dr.Shanmugam
14. Bharathathil Siddha Marunthugal Seymurai.
15. Wikipedia
16. https://www.odishafdc.com/products_medicinal_plants.php
Theraiyar Thaila Vargam