Review of herbs for Nervine tonic in traditional Siddha Medicine

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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 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)

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

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

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-typerr 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]

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**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:

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

**Minerals:** [15]

- 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) and rhumatological problems in Siddha and ayurvedic system.

Velvet Bean (Mucuna pruriens)

Description:

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

Its english common names include velvet bean, Bengal velvet bean, Florida velvet bean, Mauritis 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
Trace levels
Bufotenine

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 *bangarus* (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 Jesuite working in the Philippines, brother Georg Kamel who named its fruits as the beans of strychnos ignatitus, 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]

**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 a one of the best nervine 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 problem
- 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 grow 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
Chemical Constituents

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

Medicinal uses:
- Valaḻhuvaṉ chooranaṁ mix with milk as an adjuvant to treat neurological imbalance in male sterility problems.
- Valaḻhuvaṉ chooranaṁ 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]

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

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Theraiyar Thaila Vargam

How to cite this article:
DOI: http://dx.doi.org/10.22192/ijcrcps.2017.04.07.001