

LITERATURE REVIEW ON SIDDHA MEDICINE FOR THE MANAGEMENT OF
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ABSTRACT

Seizure disorder are called as *Valippu* in siddha traditional system of medicine is one of the most common serious neurological disorder affecting the children. Epilepsy is a chronic non communicable disease of the brain that affects around 50 million people worldwide. It is characterised by recurrent seizures, which are brief episodes of involuntary movement that may involve a part of the body (partial) or the entire body(generalized) and are sometimes accompanied by loss of consciousness and control of bowel or bladder function. Seizure episodes are a result of excessive electrical discharges in a group of brain cells. Seizure can also vary in frequency, from less than 1 per year to several per day. In siddha system Seizure disorder is correlated with *valippu noi* and it can be effectively managed with *Jathikaai Mathirai*. All the ingredients of *Jathikaai Mathirai* possess anti-convulsant activity. Hence this article gives an insight on the efficacy of the drug for *Valippu noi* (seizure disorder)based on review of various literatures and scientific studies.

KEYWORDS: Seizure disorder, Siddha system, Jathikaai Mathirai, Valippu noi.

INTRODUCTION

Siddha system is a vast and unique system which defines health as a perfect state of physical, psychological spiritual and social well being of an individual. In siddha medicine there is not only cure of disease but it also improve the quality of life by prevention and rejuvenation.

In Siddha Medicine importance has been given to child care. The disease are classified depending on the age of the children. The symptoms of *Valippu noi* is compared with Seizure disorder.

A seizure is a paroxysmal, time-limited change in motor activity and/or behaviour that results from abnormal electrical activity in the brain. Seizure is common in the pediatric age group and occurs in 10% of children. A few children also exhibit pseudoseizures of psychiatric origin. The cumulative lifetime incidence of epilepsy is 3%;more than half of cases begin in childhood.^[1]

One seizure does not signify epilepsy(up to 10% of people worldwide have one seizure during their lifetime).Epilepsy is defined as having two or more unprovoked seizures. Epilepsy is a chronic non

communicable disease of the brain that affects people of all ages. According to WHO around 50 million people worldwide have epilepsy, making it one of the most common neurological diseases globally. Nearly 80% of people with epilepsy live in low-and middle - income countries. It is estimated that upto 70% of people living with epilepsy could live seizure-free if properly diagnosed and treated.^[2]

The risk of premature death in people with epilepsy is up to three times higher than for the general population. Three quarters of people with epilepsy living in low-income countries do not get the treatment they need. Many people with active epilepsy do not receive appropriate treatment for their condition leading to large treatment gap.^[3]

In many parts of the world, people with epilepsy and their families suffer from stigma and discrimination. This stigma continues in many countries today and can impact on the quality of life for people with the disease and their families.^[2]

The *Jathikaai Mathirai* is a Polyherbal formulation indicated for *Valippu noi* in the siddha text

Balavagadam. All the ingredient of *Jathikaai Mathirai* have a potent-antiepileptic action and also the medicine is in tablet form so it is very easy for administration and it is safe to treat *Valippu* in children with this efficacious medicine.

Drug Details

Trial drug: *Jathikaai Mathirai*.^[4]

Preparation Of The Drug

Ingredients

1. Jathikaai (*Myristica fragrans*)-1 varagan(4grams)
2. Kirambu (*Syzygium aromaticum*)-1 varagan(4grams)
3. Omam (*Carum copticum*)- 1 varagan(4 grams)
4. Karunseeragam (*Nigella sativa*)- 1 varagan(4 grams)
5. Chukku (*Zingiber officinale*)- 1 varagan(4 grams)
6. Thippili (*Piper longum*)- 1 varagan(4 grams)
7. Kasthurimanjal (*Curcuma aromatica*)-1 varagan(4 grams)
8. Vasambu (*Acorus calamus*)- 1 varagan(4 grams)

Scientific Review

Plants	Botanical Name	Images	Parts Used	Scientific review
Jathikaai	<i>Myristica fragrans</i>		Dried seed	Nutmeg oil was found to possess significant anticonvulsant activity against electroshock-induced hind limb tonic extension in experimental animal models. It exhibited dose dependent anticonvulsant activity against pentylenetetrazole-induced tonic seizures. It also delays the onset of hind limb tonic extensor jerks induced by strychnine. ^[5]
Kirambu	<i>Syzygium aromaticum</i>		Flower bud	Inhibition of tonic convulsions induced by electroshock in rats. ^[6] The anticonvulsant activity of Clove essential oil was probable due to its inhibition of the effects of strychnine and picrotoxin at glycine and GABA receptor sites respectively since it produce a significant dose dependent prolongation of onset of convulsion and reduction of its duration for models of convulsion. ^[7]
Omam	<i>Carum copticum</i>		Seed	L-Lysine can enhance benzodiazepine receptor binding affinity ^[8,9] and subsequently shows an antiepileptic effects in experimental models. ^[10,11] This evidence suggests that the antiepileptic effect of the extract is partly mediated by L-lysine. In addition, there is evidence that calcium channel blockers obviously have anticonvulsant roles in different animal models of epilepsy. ^[12,13] The antiepileptic effects of carum copticum seed extract are exerted via potentiation of GABA neurotransmission and or suppression of glutamate receptors in the brain.

9. Perungayam (*Ferula asafoetida*)- 1 varagan(4 grams)
10. Vellaikaakanamverpattai (*Clitoria ternatea*) - 9 varagan(36 grams)

Purification of the drug

All the drugs mentioned here were purified as per the Siddha literature.

Method of preparation

The required quantity of the purified drugs was taken and grinded into fine powder and sieved by vasthrakayam procedure and pulverised in kalvam by adding warm water. Made it as a sundaikaai sized pills when the required consistency obtained.

Dosage: 1 tab (35mg) – od with hot water.

Indication: *Valippu noi* **Duration:** 45 days

Karunsee ragam	<i>Nigella sativa</i>		Dried seed	The oil is most effective in preventing pentylenetetrazole- induced seizures relative to valproate;also shows significantly decreased oxidative injury in the mouse brain tissue in comparison with the pentylenetetrazole-kindling group. ^[14]
Chukku	<i>Zingiber officinale</i>		Dry rhizome	The plant extract of <i>Zingiber officinale</i> showed significant dose dependent anticonvulsant activity in Maximal Electroshock Seizure (MES) induced seizures. The anti-convulsant activity can be due to the presence of various phytoconstituents like phenylpropanoid, gingerol. ^[15] It has been suggested that MES induced convulsions are associated with oxidative damage. ^[16,17] <i>Zingiber officinale</i> also has strong antioxidant property (Kim et al. 2007). The anti-convulsant activity of <i>Zingiber officinale</i> rhizome can also be due to the antioxidant property.
Thippili	<i>Piper longum</i>		Immature berries	In the picrotoxin-induced seizures model, piperine caused a significant increase in the latency of convulsion similar to diazepam, a standard anticonvulsant drug. Postsynaptic GABA A receptors are functionally linked to chloride ion channels to form GABA-chloride ionophore complex, which is intimately involved in the modulation of GABAergic neurotransmission. ^[18] The effect of piperine against picrotoxin-induced seizures in mice may involve opening of the chloride-ion channels associated with GABAA-receptors and/or glutamate NMDA antagonist action. ^[19,20]
Vasambu	<i>Acorus calamus</i>		Dried Rhizome	Anticonvulsant action against electroshock induced experimental models. ^[21]
Perungayam	<i>Ferula asafoetida</i>		Gum- resin	<i>Ferula asafoetida</i> anti-convulsant effect in PTZ and amygdala kindled rats ^[22] Extracts of the <i>Ferula</i> species, oleo- gum-resin of <i>F. asafoetida</i> could prevent pentylenetetrazole (PTZ) induced seizures in mice. ^[23]
Vellai kaakanam verpattai	<i>Clitoria ternatea</i>		Root	All the part of the herb used as a memory enhancer, nootropic, antistress, anxiolytic, antidepressant, anticonvulsant, tranquilizing and sedative agent. ^[24] <i>C.ternatea</i> significantly delayed the onset of convulsions in PTZ- induced convulsions and also delayed the duration of tonic hind limb extension in MES-induced convulsions. These results suggest that it may be useful in the treatment of seizure. ^[25]

CONCLUSION

The above mentioned medicine is effectively used for the management of Valippu noi (seizure disorder). Besides, all the ingredients of the plants have anti-epileptic action. Hence, Jathikaai Mathirai is effectively used for the management of Valippu noi.

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