

Thattu Varmam in Siddha Medicine: A Literature Review and Comparative Analysis with Whole-Body Vibration Therapy and Its Relevance in Common Medical Emergencies

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ABSTRACT

Background: The Siddha system of medicine is considered one of the oldest traditional medical systems practiced in India. The Siddha system comprises 32 internal and 32 external therapies. The Siddha system is based on the unique concept of 96 Thathuvams (Essential principles in Siddha). "Varmam", a manipulative therapeutic technique used in Siddha medicine, is a unique component of the Siddha system. For body in action, energy is needed. This energy is supplied by "Pranavayu" (Eg. Oxygen saturation in body). This Vayu travels throughout the body through various energy channels known as Naadis through energy receiving points called "Varmapulli". The Manipulation of these points is of different methods. One such technique is "Thattu Murai" or "Thattu Varmam." Thattu Varmam is one of the Varmam manipulation techniques performed through therapeutic tapping.

Objectives: The objective of this paper is to review the available literature and evaluate its therapeutic effectiveness.

Methods: Literature evidence was used to describe its uniqueness, symptoms, manipulation techniques, Ilakumurai, its application for therapeutic conditions in comparison with currently available emergency procedures correlating the evidence with Whole-Body Vibration Therapy (WBV).

Conclusion: Varmam has unique therapeutic significance in Siddha medicine as it establishes a connection between physical body (Sthoolaudal) and energy body (Sookumaudal). Unlike other systems, it actively involves both the physical and energy bodies, thereby contributing to holistic healing.

Keywords: Siddha, Varmam, Thattu Varmam, Siddha emergency, vibration therapy.

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INTRODUCTION

Siddha system of medicine is considered as one of the ancient existing traditional medicinal system in India. Siddha system comprises of 32 internal and 32 external therapies. The origin of Siddha system is with a unique domain with the concept of 96 thathuvams (Essential principles of human life mentioned in Siddha Texts) and five Bootham (Vital elements of nature) namely, Earth, Water, Air, Water and Space. "Varmam" is unique part of Siddha system. For body in action, energy is needed. This energy is supplied by "Pranavayu". This vayu travels all throughout the body through different energy channels called Naadi through energy receiving points called "Varmapulli". The Manipulation of these points is of different methods. One among this is "Thattumurai" or "Thattuvarmam". In this paper, we have collected several literature evidences that were used to describe its uniqueness, symptoms, manipulation techniques, Elakumurai, its application for therapeutic conditions and comparison with currently available emergency procedures co-relating the evidences with Whole body Vibration therapy (WBV).

History of Varmam:

Many years ago, South India was ruled by three great emperors- Chera, Chola and Pandiyas. Of these, Chera kings gave much importance to teach this art to their people and for the purpose of giving effective healing to the soldiers. This Varmam became well developed in Cheranadu which includes Kanyakumari and some southern parts of Kerala^[7].

The exact origin of Varmam is still unclear. According to the classical literatures, Lord Shiva and Parvathy were walking along the hills of Shigiri, they saw a Lord Shiva struck him gently with a golden staff in his hands and the individual recovered immediately. Lord Parvathy admired at this incident and she learnt all the Varmam techniques. Likewise, on destroying the giant Surabathman, Lord Muruga learnt all types of Varmam from his mother Parvathy. Sri Agasthiyaguru (considered as the father of Siddha medicine) was residing on the Pothigai hills, used to treat nearby people. One day, on doing his regular treatments, some mistakes were pointed out by an old man and Agasthiya guru recognized as he is none other, the Lord Muruga. Lord Murugaw was pleased by the prayers offered by him and taught him the Varmam techniques.

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From Agasthiya guru, other Siddhars learnt the Varmam techniques^{[7][2]}.

Fig 1: History of Siddha Varmam^[2]

Types of Siddha Varmam:

There are various types of Varmam proposed in many of the Siddha literatures.

PaduVarmam- Varmam due to injury.



ThoduVarmam- Varmam due to touch.

ThatuVarmam- Varmam due to stroking/ Tapping.

ThadavuVarmam- Varmam due to massage.

NakkuVarmam- Varmam due to licking.

NokkuVarmam- Varmam due to seeing/ sight.

UthuVarmam- varnmam due to blowing.

ThatuVarmam:

Of these different types of Varma has unique features in injury, manipulation techniques and also has various efficacy on manipulation.

The name "ThatuVarmam" denotes the manipulation of the vital or energy centers through tapping. The tapping may be performed using the practitioner's hands or feet. There are eight types of Thattu Varmam (OR) 8 vital centers of thatuVarmam. They are

Sevikutri Varmam

Uraka kalam

Sumai Varmam

Ner Varmam

Urumi Varmam

Adapa Varmam

Valiya aathisuruki Varmam

Siriya athisuriki Varmam

Damage to Thatu Varma causes:

"Thatu varmam kontitukil kunathaik kelu

Tappamal alaleri utane marum

Kattiyator virathanal ela takum

Kuraiyana nalikaiyum irupa takum

Kattamayp panikulirum alalum mundam

Kanamana elaiperumal sanni koodum

Vattamaai virathanal erupath tettu

Mainthanae katarumendral varunthic ceyye"

Symptoms on injury:

When this Thatu Varmam is affected, body temperature rises and falls suddenly.

There may be accumulation of phlegm (aamam) followed by wheezing and coughing.

These symptoms may indicate delirium.

Time limit of treatment:

27-28 days (first seven days are critical).

Curable(5)	Un-Curable(3)
SevikundriVarmam	UrakaKalam
NerVarmam	SumaiVarmam
AdapaVarmam	UrumiVarmam
Valiyaaathisurukivarmam	
Siriyaathisurukivarmam	

Table 1: list of curable and Un-Curable Varma centers

Uniqueness of Thatu Varmam:

As according to the history of Varmam, Thatu Varmam has its origin from the hands of Lord Shiva (as tapping the hunter with the golden stick). On remembering this, Thatu Varmam should have been considered as the most important and leading manipulating technique among all, especially in traumatic conditions.

Some of the literature states that, Thatu Varmam are the manipulation of Varma points present in the internal organs having folds like structure such as Cerebrum, Cerebellum, heart, lungs etc^[7].

In Silambam (A weapon based martial art originated in Tamil Nadu), out of Nine types of preventive methods {Thaduthal, Thattuthal, Thanguthal, Sumatuthal, Sunduthal, kavuthathal, Thulluthal, Vilaguthal, Eruthal }- Thatu had placed in second place with an unique feature called "Thongi saduthal"^[8].

Vibration Therapy:

Thatu varmam manipulation produces an Vibratory effect which causes dramatic changes in human body. So, the Thatu Varmam is compared with Vibration Therapy-Whole body Vibration (WBV).

Whole-Body Vibration (WBV) therapy was discovered in the 1800s by ancient Greeks, and was initially used by soldiers during wartime. It was utilized by bow like wooden instruments, by plucking the strings of bow and allow the strings to vibrate upon the wounds. This was thought to be an effective emergency treatment at that time.

According to bible, Law of vibration states that everything in existence, both seen and unseen, when taken to its most basic form, consists of pure energy exists as a vibratory pattern.

Human vibration is defined as the effect of mechanical vibration on the human body.

The human body generates mechanical vibrations of very low frequency of about ~10hz, blood circulation about 0.05 to 0.3 (Infrasonic waves).

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Types:

Free vibration or natural vibration (when body is in resting stage).

Forced vibration (when a mechanical force is applied).

Damped vibration.

Sevikutri

Varmam:

Location:

In the depression felt between tragus and the mandibular joint, when the mouth is slightly open (on both sides)^[3].



Time limit for treatment:

23^[5] -37^[4] Nazhigais (1 Nazhigai= 24 minutes).

Sevikundri varmam is compared with Hypertensive Emergency


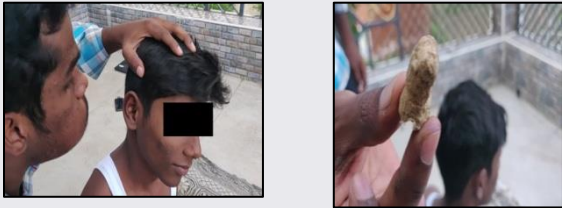

Symptoms on Varmam injury (in Siddha Texts)	Hypertensive Emergency ⁽¹⁸⁾ (Comparison with diseases)
Bleeds in nose and mouth. Shivering of the whole body. Looks Dark and gloomy Develops stammering and blabbering Discolorization of eyes Drooling of Saliva Deafness Feels giddy.	Epistaxis Convulsions due to cerebral encephalopathy. Due to micro-angiopathic haemolytic anaemia. Hypertensive retinopathy- visual disturbances, Focal ischemia, Cotton wool appearance. Eclampsia in case of pregnancy

Line of treatment procedure (Elaku murai):

Varmam procedure ⁽¹⁾	Explanation
The sevikutri opposite to the affected side is to be pressed with a finger and mildly tapped with the other hand	Manipulation of Sevikutri Varmam directly stimulates the aagaya (Space) bootham ⁽³⁾ . Aagayam with air constitutes Vatham. This Aagaya bootham regulates the blood pressure.



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<p>The physician should place his right palm on the head and punch with the left hand.</p> 	<p>This tapping on the head stimulates Utchi Varmam and this also stimulates Aagaya bootham to regulate the blood pressure^[3].</p>
<p>Chew a piece of dry ginger and blow into the patient's ear.</p> 	<p>Blowing of dry Ginger is useful for reviving unconscious patient⁽¹¹⁾ and potentially used in reducing blood pressure⁽¹⁸⁾.</p>
<p>Sprinkle little water and sponge the face.</p> 	<p>-</p>
<p>After patient regains his consciousness, he should be given "samai or anna milk"^[4].</p>	<p>This helps balance the three humors (Tridosha)^[17].</p>

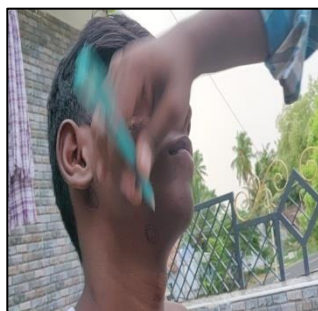
Vibration therapy used for reducing blood pressure:

A study confirmed that, 3 months of WBV may reduce arterial stiffness in middle-aged and older adults and, thus, can be used as a supplementary exercise^[18]. WBV training for 8 weeks is an adequate unconventional exercise intervention for improving sympathovagal balance and BP in previously sedentary obese postmenopausal women^[19].

Uraka Kalam:

Location: Uraka kalam is located 2.5 cm lateral and upward from the adam's apple.

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Time limit for treatment:

90^[4] Nazhigais

Uraka Kalam is compared with Sleep apnea

Symptoms on Varmam injury ⁽¹⁾ (in Siddha Texts)	Sleep apnea ⁽¹⁴⁾ (Comparison with diseases)
Excessive sleep with snoring. Fever. Half closed eyes while sleeping. The patient's sleep is disturbed ^[4] .	Incomplete obstruction of pharynx produces sleep with snoring. Changes in circadian rhythm . Narrowing of palatopharynx muscle during sleep causes Difficulty in concentration, impaired cognitive function, depression, fever, irritability and nocturia.

Line of treatment procedure (Elaku murai):

Varmam procedure ⁽¹⁾ (Before patient attains unconsciousness)	Explanation

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The person is carefully lifted and made to sit up. Hold the patient's hand on the top of the head and make a mild hit on it.



Changes in circadian rhythm denotes increase in Vatham and excessive sleep denotes kapham. By stimulating Aagaya bootham, it regulates increased Vaatham. It also stimulates aiknai and Purudan Naadi^[3].

Another mild hit below the Pidari Varmam



By stimulating Aagaya and Katru bootham, it regulates increased Vaatham^[3]. It also stimulates Visuthi.

Tap the spine of the patient and massage the head and back up and down, and then from left to right




Head -tilt/ Chin lift maneuver⁽¹⁵⁾

Back Slaps



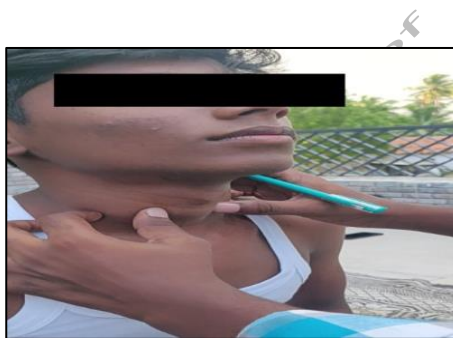
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<p>Mild massage all over the body. Shake the limbs.</p> 	<p>-</p>
<p>Sprinkle little water and sponge the face.</p>	<p>-</p>

Vibration therapy used for Sleep Apnea:

A study suggest that, A new vibratory postural device constructed is safe and could be useful as a treatment for postural Obstructive Sleep Apnea in a significant number of patients and its effect is maintained over the time^[21].

3.Sumai Varmam:



a) **Location:** Sumai varmam is

located 4cm below the Glottis.

b) **Time limit for treatment**

Should attended immediately or within 20^[4] Nazhigais.



c) Sumai Varmam is compared with Choking

<p>Symptoms on Varmam injury (in Siddha Texts)⁽¹⁾</p>	<p>Choking (Comparison with diseases)⁽¹⁴⁾</p>
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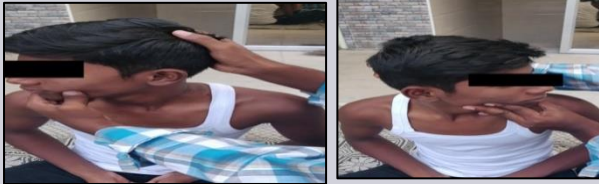
<p>Hoarseness in throat compulsive cough closure of eyes excessive salivation in tongue froth at his mouth, absence of attention blackening and body shivering</p>	<p>Sore throat Hoarseness of voice Closure of eyes Compulsive cough Drooling in mouth Absence attention</p>
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d) Line of treatment procedure (Elaku murai):

Varmam procedure ⁽³⁾	Explanation ^(15,16)
<p>The patient should be made to sit and his head should be raised.</p>	<p>Head –tilt/ Chin lift maneuver</p> 
<p>Tap his head Below Pidari Varmam.</p> 	<p>By stimulating Aagaya and Katru bootham, it regulates increased Vaatham. It also stimulates Visuthi⁽³⁾.</p>

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Head should be moved left to right and vice-versa.



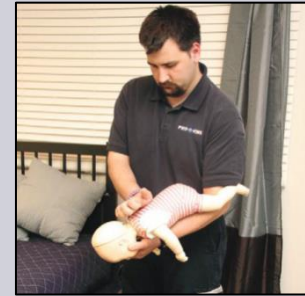
Jaw thrust Maneuver



Massage from head to bottom and allow him to shake his hands.



Back blows in case of foreign objects



Nasal application of chukka (Zingiber officinale) powder.



Blowing of dry Ginger is useful for revoking unconscious patient⁽¹¹⁾.

Mild Massage on Entire body.



Lock his hands and lift him and shake his entire body



Abdominal thrust (Heimlich Maneuver)



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Vibration therapy used for Choking:

Whole body vibration training seems to be an effective and feasible exercise modality for patients with advanced COPD that may even enhance the effects of a comprehensive multidisciplinary rehabilitation program^[20]. Another study suggest that, chest vibration may contribute to expectoration and thus improve lung collapse among ventilated patients in an ICU. Chest vibration nursing intervention is a safe and effective alternative pulmonary clearance method and can be used on patients who are on ventilators in ICUs^[21].

Ner Varmam:

Location: Located 12 fingers breath from the sternal notch, midway between the sternal notch and umbilicus.

Time limit for treatment:


12 Nazhigais

Ner Varmam is compared with Cardiac arrest



Symptoms on injury (in Siddha Texts) ⁽¹⁾	Cardiac arrest ⁽¹⁴⁾ (Comparison with diseases)
Excessive sweating. General weakness In case of excessive injury, it causes fractures and blood vomiting (hematemesis).	Sweating Nocturnal cough Angina Palpitation Sore throat Dyspnoea Nausea Vomiting Extreme distress Hypocalcemia

Line of treatment procedure (Elaku murai):

Varmam procedure ⁽¹⁾	Explanation ⁽³⁾
<p>Allow the patient to rest on the floor and perform a mild tap on the head at a distance of 1saan.</p> 	<p>It stimulates Aggaya bootham and Suzumunai. Both have direct impact on heart⁽³⁾.</p>

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<p>Perform a tap on the patient's spine with the dorsum of foot.</p>		<p>Back slaps</p>	
<p>Massage the trunk both front and back.</p>		<p>Chest compressions</p>	
<p>Hold the patient's chest and lift over to shake the body.</p>		<p>Abdominal thrust (Heimlich Maneuver)</p>	

Vibration therapy used for Cardiac arrest:

A study showed, that vibration training significantly increased cardiac tolerance to ischemic reperfusion injury in rats, as evidenced by reduction in the infarct size and cardiac arrhythmias, and by facilitating spontaneous defibrillation^[22]. An experiment conducted by Robbins et al. showed a significant increase in blood flow velocity with no significant changes in heart rate, blood pressure or peripheral skin temperature. Increased muscle blood volume and blood flow velocity after vibration exercise were attributed mainly to the effect of vibrations in reducing blood viscosity and increasing its velocity through the arteries^[23].

5. Urumi Varmam:

a) Location: located 6 fingers below the breast lies the urumi kalam 4 fingers above the umbilicus.

If affected, symptoms of urumal looks like grunting of a swine^[4].

Time limit for treatment:

13^[1]-28^[4] Nazhigais





Urumi Varmam is compared with Seizures



Symptoms on injury (in Siddha Texts) ⁽¹⁾	Seizures ⁽¹⁴⁾ (Comparison with diseases)
<p>The patient's eyes may appear deviated. Excessive sound like grunting Visual disturbances. Deafness Loss of sensation^[1].</p>	<p>Focal seizures: Patient stop, stare blankly and forced deviation of eyes (<i>Petit mal</i>), often blinking repetitively, making smacking movements in their lips. Generalized seizures: Sudden loss of postural muscle tone Consciousness impaired</p>

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Line of treatment procedure (Elaku murai):

Varmam procedure ⁽¹⁾	Explanation ^(3,4)
<p>The patient should be made to sit and Tap with dorsum of foot at a distance of 1 Muzham.</p> 	<p>This step of manipulation stimulates urumi maru Varmam and nenju naduku nadu varmam, it directly indicated for epilepsy^[3].</p>
<p>Rubbing the muscle is to be done from throat downwards the limbs</p> 	<p>Prevents aspiration</p>
<p>Shake the limbs.</p> 	<p>-</p>
<p>Consecrated water sprinkling may help in easing the congestion in the joints^[4].</p> 	<p>-</p>

Vibration therapy used for Seizures:

Vagus nerve stimulation seems to be a broad-spectrum treatment for epilepsy. This vagus nerve stimulation can be achieved by Whole body vibration therapy^{[24][25]}.

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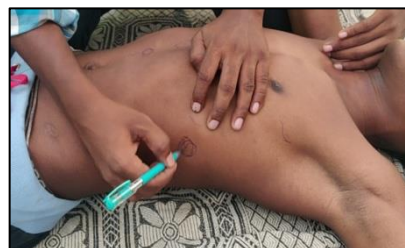
6. Adapa Varmam:

Location: located 10 finger breath lateral to Ner varmam^[3].

Time limit for treatment:


5 ½ Nazhigais

Adapa Varmam is compared with **Stroke**



Symptoms on injury (in Siddha Texts) ⁽¹⁾	Stroke ^(13,14) (Comparison with diseases)
<p>The affected individual may develop pallor, perspires and temperature drops. Excessive giddiness, head looks elevated Drooling of saliva The patient may appear collapsed without voluntary movements.</p>	<p>Diplopia Dizziness Drop attacks Dysphagia Cortical blindness Thalamic syndromes Bi-pyramidal signs</p>

Line of treatment procedure (Elaku murai):

Varmam procedure ⁽¹⁾	Explanation ⁽¹³⁾
<p>Place the patient in the Kukuda position. Hold the legs and lift upto one muzham approximately and rest slowly on the floor.</p> 	<p>Stimulation of Pathasakara Varmam and Karandai mozhi porunthu Varmam indicates Stroke.</p>

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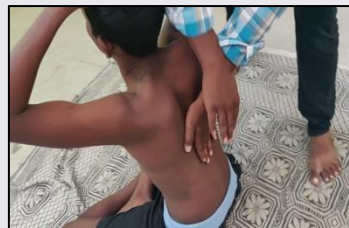
Hold both the hands of the patient on his head, make a mild tap on the chest region.



Chest compressions



Make a mild tap on the spine.

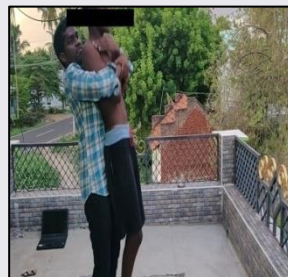


Continuing manipulation of CPR

Massage back and front of the entire body.



Lift him and shake his entire body.



Continue further treatment for disease otherwise death occurs in 8 days

Vibration therapy used for Stroke:

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A study reported that WBV eliminated risk of falls and enhanced motor functions in stroke patients during leg exercises^[26]. Another study reported that, WBV was effective in increasing voluntary muscle strength, which further helped balancing and gait function^[27]. Another study concluded that whole-body vibration may be a promising candidate to improve proprioceptive control of posture in stroke patients^[28].

7. Valiya(Big) athi suruki varmam:

a) Location: Valiya(big) Athi suruki lies 2 fingers below the rib and 4 fingers below the breast^[4]. Adjacent to Ner Varmam, $\frac{1}{4}$ of the abdominal circumference below the ribs^[3]

b) Time limit for treatment:


$\frac{3}{4}$ ^[1] Nazhigais.

Valiya(Big) athi suruki varmam is compared with **Parkinson`s disease**



Symptoms on injury (in Siddha Texts) ⁽¹⁾	Parkinson`s disease ⁽¹⁴⁾ (Comparison with diseases)
Damage to this Varma centre makes the victim shrinks in the body (Length of 1 muzham) Closure of mouth General weakness	Expressionless face Stooped posture-Stooped or rounded shoulders, decreased low back curve or leaning forward of head or whole body. Bradykinesia Rigidity Tremor Loss of postural reflexes Soft, rapid, indistinct speech (Dysphonia)

Line of treatment procedure (Elaku murai):

Varmam procedure ⁽¹⁾	Explanation ⁽³⁾
Make the patient to sit and make a mild tap on the spine. 	Stimulation of Pathasakara Varmam and Karandai mozhi porunthu Varmam indicates Stroke.

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Another tap on the head.



It stimulates Utchi Varmam and it's indicated for Brain weakness.

Make an tap on the spine with the dorsum of foot.



Stimulation of Pathasakara Varmam and Karandai mozhi porunthu Varmam indicates Stroke.

Shake the ribs.



Perform an mild massage over the body from chest to foot.



Continuing manipulation of CPR

Grab the patient's fingers and make an mild pull.



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Hold patient hands to lift and make an mild shake.



Vibration therapy used for Parkinson's disease:

The oscillatory vertical motion or a movement along the horizontal axis is transmitted to the whole body. While one maintains balance on the moving platform, WBV provides tactile and proprioceptive sensations to the whole body. This stimulation, in turn, bypasses Basal Ganglia circuitry which is affected in people with Parkinson disease^[29] ^[30]. Consequently, these mechanisms may result in improved strength and endurance that is necessary for postural stability and gait. Another study illustrated that both long-term and short term effects of WBV, there is minor evidence from the studies with the best methodological quality that WBV improves strength, proprioception, gait, and balance^[31].

8.Siriya athi suriki varmam:

Location: 2 fingers breath below Valiya Athi Suzuki.

Time limit for treatment:

$\frac{1}{2}$ ^[1] Nazhigais .


Siriya athi suriki varmam is compared with **Type II Acute respiratory failure**



Symptoms on injury (in Siddha Texts) ⁽¹⁾	Type II Acute respiratory failure (Comparison with diseases)
<p>Patient affected with Siriya(small) Athi Suruki, the condition becomes critically severe, if any poisonous material is left in the body.</p> <p>He will have Fever Legs will be shivering. Dizziness with half closed eyes. Severe dyspnea Respiratory arrest</p>	<p>Fever with rigor Dyspnea Hypoxemia Restlessness Irritability Convulsions Hypercapnia Acidemia Delirium Mental confusion Bouncing pulses</p>

Line of treatment procedure (Elaku murai):

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Varmam procedure	Explanation
<p>Chukku (<i>Zingiber officinale</i>) and petiole of bettle leaf(<i>Piper bettle</i>) are chewed and administered through the ears and nose immediately.</p> 	<p>Blowing: Blowing of medication on eyes, ears and nose directs the medication to brain quickly and helps relieve unconsciousness and respiratory distress.</p>
Continuing manipulation of CPR and further treatment	

Vibration therapy used for Acute respiratory failure:

WBV training seems to be an effective and feasible exercise modality for patients with advanced COPD that may even enhance the effects of a comprehensive multidisciplinary rehabilitation program^[32]. WBV in people with COPD does able to increase IL-10, an important anti-inflammatory marker^[33].

Common medications for thatuVarmam^[1]:

Oil for head bath: (kurunthottiver)

Ingredients:

Root of *Pavoniaodorata* (kurunthottiver)- 350 gms.

Gingly oil (Nallaennai) - 0.65 litre.

Milk – 0.65 litre

Pavoniaodorata (kurunthottiver) – 15 gm

Sandal (chanthanam)-10 gm

Cumin seeds (Jeerakam) – 10gm

Methods of preparation:

Powder the roots of *Pavonia*, boil with 19.5 liters of water in a vessel and reduce it to 3.25 liters. To this add gingly oil a milk. Boil this with *Pavonia*, *sandal*, *cumin seeds* and reduce it to a waxy form.

Uses:

Any Injury during Varmam manipulation will be cured by this oil.

Restrictions:

Don't wash the head with soap-nut powder (*arappu*)when the oil is used for head bath.

Avoid using tamarind and overnight cooked rice.

Decoction: (Kudineer):

Ingredients:

Root of *Pavoniaodorata* (kurunthottiver)- 105 gms

Root of *Borreriahispidia* (Nathaichuriver)- 105 gms

Root of *Adhatodavascica* (Adathodaiver)- 105 gms

Root of *Pergularia extends* (Veliparuthiver)- 105 gms

Root of *Glycyrrhiaglabra* (Athimathuramver)-35 gms

Root of *Cyanodondactylon* (Arungampulver) - 175 gms

Milk - 0.135

gms

Water

- 1.36 gms

Method of preparation:

Powder the roots and add water and milk and collect it in a vessel and boil well to reduce it to 0.65 litre. Take this decoction twice a day for three days.

Conclusion:

Compared with modern treatment procedures, we consider that Siddha system has a wide lacuna in dealing with emergencies. In this paper, we confirmed that the most currently available modern treatment and first aid methods evolved from Siddha Varmam. Varmam has unique specialties in Siddha medicine as it establishes a connection between physical body (Sthoola udal) and energy body (Sookuma udal). Since it is difficult to express the mechanism of action of this channels with the current advancements. Although now allopathic medicine have life saving equipments, this Varmam can be manipulated within the time of hospitalization which may save patients lives.

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Further clinical studies must be conducted in validation of these Varmam techniques.

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