



SCAN ME

Review Paper

SIDDHA EXTERNAL THERAPY VEDHU [STEAM INHALATION] FOR THE MANAGEMENT AND PREVENTION OF COVID-19

Abarna S.¹, Shakthi Paargavi A.², Arulmozhi P.³, Meenakshi Sundaram M.⁴ and Meenakumari R.⁵

¹Alumni, Department of Kuzhandhai Maruthuvam, National Institute of Siddha,

²Alumni, Department of Noi Naadal, National Institute of Siddha,

³Lecturer, Department of Kuzhandhai Maruthuvam, National Institute of Siddha,

⁴Head of the Department, Department of Kuzhandhai Maruthuvam, National Institute of Siddha,

⁵Director, National Institute of Siddha,
India.

Abstract

Background: Siddha system is a holistic science that aims at treating various infirmities of the body, mind, and soul. Siddha system has been classified into 2 types-based treatment modalities Internal and External. It is again classified into 32 types each. Vedhu [Steam inhalation] is one of the Siddha external modalities which has many beneficial effects in the management of various viral infections such as Common cold, COVID-19, etc. **Aim:** To document the therapeutic efficacy of Siddha external therapy Vedhu in COVID-19 based on a literary survey. **Materials and methods:** Various Siddha Sastric work of literatures, namely Materia medica [Gunapadam], Pothu maruthuvam, Siddha external therapy, etc., and also various scientific articles from Google scholar, Pubmed, etc were reviewed. **Discussion:** During the COVID-19 pandemic situation worldwide, there was no specific treatment for its management of it. Many forms of herbal medicine were used to treat and manage it. Siddha external therapy *Vedhu* is one of the most effective managements for Common colds, COVID-19, fever, asthma, some respiratory disease, etc. **Conclusion:** *Vedhu* [Steam inhalation] is a simple and very fast method of treatment to kill the virus or any pathogen in the respiratory tract.
Key words: Vedhu, Steam inhalation, Siddha, External therapy, COVID-19.

INTRODUCTION

Coronavirus disease [COVID-19] is an infectious disease caused by a newly discovered coronavirus. Most people infected with the COVID-19 virus will experience mild to moderate respiratory illness and recover without requiring special treatment.

Older people and those with underlying medical problems like cardiovascular disease, diabetes, chronic respiratory disease, and cancer are more likely to develop severe illnesses. The COVID-19 virus spreads primarily through droplets of saliva or discharge from the nose when an infected person coughs or sneezes. Most common symptoms: fever, dry cough, tiredness. Less common symptoms: aches and pains, sore throat, diarrhea, conjunctivitis, headache, loss of taste or smell, a rash on the skin, or discoloration of fingers or toes. Severe symptoms: difficulty breathing or shortness of breath, chest pain or pressure, and loss of speech or movement. [1]

The Siddha system is one of the most wonderful systems of medicine since time immemorial. Siddha Medicine is classified as Internal Medicines [Aga Marundugal 32] and External medicines [Pura marundugal 32]. *Vedhu* is placed in fifth place in 32 external medicine series. It is defined as a method of stimulation of sweat using pain or medicated steam. It is otherwise called Sweat therapy. It relieves hypersensitivity of hair follicles, pricking pain, and organ spasm. It relaxes and brings softness to the spastic organs. [2]

Nowadays, *Vedhu* is a wonderful home remedy for the Common cold, COVID-19, etc. *Vedhu* includes both steam inhalation and steam application to either localized regions or the whole body. Steam therapy is used both in localized and systemic diseases. A steam bath or warm decoction shower is done by adding fresh herbs, aromatic substances, or raw drug powders to boiling water. The addition of a red hot iron rod or even hot brick to boiling water augments steam generation. A steam bath for the whole body removes fluid accumulation and relieves body aches. At the end of this treatment, the patient feels lighter, has a good appetite, and thereby good physical strength and the sense organs become sharp. [3]

AIM:

To document the therapeutic efficacy of Siddha external therapy *Vedhu* in COVID-19 based on a literary survey.

MATERIALS AND METHODS:

Various Siddha Sastric works of literature, namely *Materia medica* [Gunapadam], *Pothu maruthuvam*, Siddha external therapy, etc., and also various scientific articles from Google scholar, Pubmed, etc were reviewed.

VEDHU OVERVIEW:

Steam inhalation is a long-recognized and effective therapy for the treatment of common cold and sinusitis. It eases symptoms of bronchitis, allergy, and asthma by relieving the inflammation and congestion of mucous membranes. It alleviates spasmodic breathing and serves as a natural expectorant. It relieves throat irritation by moistening the air, thus stimulating secretions of mucous membranes in the throat and lungs, preventing dryness. It also relaxes chest muscles and relieves cough. It is useful in improving complexion; it deeply cleanses the skin without causing dehydration. The result is a sense of deep relaxation of body, mind, and a flushed, youthful appearance that lasts for hours after treatment. The benefits of steam baths include: reducing tension, relaxation of muscle tissue, Increasing joint flexibility, detoxification, increasing circulation, stimulating the immune system, revitalizing skin, and enhancing skin tone.

[3]

4.a Steps of Vedhu [Steam inhalation]:

- Keep the steamer opposite [in front] to the patient to prevent scalding.
- The temperature of the water should be maintained between 110 -150 degrees Fahrenheit [54.4-75.7 degree centigrade].
- A sputum mug should be placed near the patient to spit during inhalation.
- Warm the inhaler by pouring a little hot water into the inhaler and emptying it.
- Fill up the inhaler with above the Notchi, manjal hot decoction
- Cover the inhaler and patient with a towel and take it to the patient face.
- Plug the steamer
- Open the mouth lid and ask the patient to breathe through the nostrils
- To inhale and exhale rhythmically
- The steam may be given for 15 to 20 minutes at a time.
- Unplug and remove the steamer carefully. [2]

4.b. Mechanism of Vedhu:

In steam inhalation, medicated vapors are allowed to enter the respiratory tract through the nostrils. These medicated vapors relieve inflammation and congestion of mucous membranes in the respiratory tract and paranasal sinuses. It also softens the

thick, tenacious mucous and helps it get rid of the respiratory tract. It also provides heat and moisture by sweating to prevent dryness of the mucous membrane of the lung and upper respiratory passage and in turn, helps to higher absorption of oxygen. The medicated vapors have proven antiseptic action on the respiratory tract. [2]

The scientific forum explains the drug absorption involves an aqueous route of transport [Paracellular route] and transport of drug through a lipoidal route [transcellular process]. Paracellular route is slow and passive. Transcellular route is responsible for the transport of lipophilic drugs that show a rate dependency on their lipophilicity. Cell membranes may be crossed by drugs by an active transport route via carrier mediated means or transport through the opening of tight junctions [13].

4.c Types of Vedhu:

According to its physical nature, it is classified as

- Steaming of the whole body using a hot decoction
- Steaming by pouring some liquid on heated stone or plant parts
- Steaming by burnt medicated cloth bundle fumes. [2]

4.d. Eligible criteria:

The persons who are not eligible are

- Children below 12 years.
- Elder above 75 years.
- Pregnant women. [2]

4.e. Therapeutic sources:

- Plant drugs boiled in water
- Heated stones, woods, and metals
- Blankets[2]

4.f. Contra-indication of Vedhu:

- Anemia
- Ascites

- Coronary Artery Diseases
- Dehydration
- Diabetes mellitus
- Dry skin
- Hemorrhage
- Highly infectious diseases
- Hypertension
- Hypotension
- Jaundice
- Menstrual days
- Postpartum status
- Pregnancy
- Rectal prolapse
- Tuberculosis

But we may use gentle steaming or part steaming according to the clinical requirements for the above conditions. [2]

4.g. Purpose of Vedhu:

- To make the patient comfortable and fresh
- To improve circulation
- To give instant relief from pain
- To cure peripheral neuritis
- To increase the skin and muscle softness
- To open the skin pores for sweat and sebum
- To improve the intelligence
- To increase the physical activity
- To balance the humor [Mukkutram]
- To reduce inflammation and coagulation
- To control the unwanted growth[2]

4.h. Indications of Vedhu:

Common cold, Cough, wheezes, Sinusitis, Swelling, Eczema, Dysmenorrhoea, Constipation, Paralysis, Oliguria, Body pain, Septicemia, Scrotal swelling, Dropsy,

Hiccough, Arthritis, Insomnia, Psoriasis, Sprain, Arthritis, Bells palsy, Calcaneal spur, Disc disease, Ear pain, skin disease. [2]

4.i. Cautions:

- Record if any abnormal changes during therapy like palpitation, stomach upset, etc
- If breathlessness develops treatment will be stopped immediately
- Discontinue if giddiness, faintness, vomit, or dizziness symptoms appear
- Take special care to avoid aspiration via nostrils
- Avoid physical exercise and hard work before or after a steam bath. [2]

1. VEDHU [Steam inhalation] for COVID-19:

5.a. INGREDIENTS:

1. *Vitex negundo* [Notchi]
2. *Curcuma longa* [Manjal]
3. Brick

GENERAL FEATURES:

Vitex negundo [Notchi]:

Used part:

Leaf, flower, root, bark

Action:

Expectorant, Febrifuge, Alterative, Vermifuge.

General characters:

“Naasantharu vaatha naasi piniyazhal

Suvaasam thasanavuru vandhodam kaasamara

Luchi yadaiyai urainoium menpadumo

Notchi yadaiyai nuval”.

Indication:

Fever, Asthma, Cough, Sinusitis, Gingivitis.^[10]

Activities

Anti-viral, Anti-spasmodic, Bronchodilator, Anti-inflammatory, Anti-convulsant, Anti-oxidant, Analgesic, Anti-bacterial, Anti-histaminic

***Curcuma longa* [Manjal]:**

Used part:

Rhizome

Action:

Carminative, Stimulant, Hepatic tonic^[10]

General characters:

“Thalai vali neertram salaiyatha megam

Ulaiutharu peenisathinoode”

Indication:

Common cold, headache, sinusitis, Nasal block, edema, Rhinitis, Vomiting, wounds. ^[11]

Activities:

Anti-viral, Expectorant, Anti-asthmatic, Anti-spasmodic, Bronchodilator, Anti-inflammatory, Anti-cancer, Anti-convulsant, Anti-oxidant, Analgesic, Anti-bacterial, Anti-histaminic, Anti-ulcer, Anti-depressant, Anti-diabetic, Hepatoprotective.

Brick:

General characters:

“Theru udalpanthanai pootchier poli iyanoi maarum”

Indication:

Common cold, body tiredness. [9]

5.b. Preparation:

Leaves of *Vitex negundo* [Notchi] – 4 pidi, *Curcuma longa* [Manjal] – ¼ Palam [8.75 gram] is boiled with water, and a hot Brick piece is poured into developing vapors. The body is covered by a cotton blanket, and the fumes are inhaled to treat kabasuram and kulir suram. [7]

5.c. Duration:

15 to 20 minutes. [2]

DISCUSSION:

According to the continuous scientific research done, it has been identified that there are two specific types of cells in a human nose that are the initial infection points in the human body. It can be noted that the two cells – goblet cells and ciliated cells are two kinds of cells where the entry mechanism of SARS-CoV2 takes place and the virus begins to attack. Goblet cells are those that produce mucus within the nose and are found alongside the respiratory tract. Ciliated cells, on the other hand, are hair-like cells that help sweep mucus or dust to the throat. [3]

This particular virus has a fatty envelope containing a spike protein on the surface. This protein unlocks another protein that is present in the human cell. After this is opened, the virus enters the human cell. There it uses a second protein called TMPRSS₂ which allows the virus to reproduce and eventually leads it to transmission within the cell. [3]

During this pandemic crisis, the treatment of COVID-19 by the Siddha system of medicine is effectively noted. Siddha medicine suggests steam inhalation for increasing the temperature and humidity in the body for curing Kabhasuram. In Siddha, there are 3 methods of treatment called Pariharamurai in Siddhar aruvai maruthuvam. [4] They are:

1. Aruvai
2. Agni [heat]
3. Kaaram

In the 2nd treatment called the Agni treatment method, there is five subdivision:

1. Chuttigai
2. Vedhu [Deep steam inhalation]
3. Otradam
4. Pottanam
5. Pugai

The 2nd division of Agni treatment, i.e Vedhu [steam inhaling method] is explained in this document because it uses the technique of high humidity and temperature for treating the kabha [lung] diseases. COVID-19 infects and swells the lungs, which will result in dyspnoea, a condition where breathing difficulty occurs due to the secretion of inflammatory materials. When practicing VEDHU, the body sweats more thus excreting the deleterious inflammatory substances from the body. This method is always used in Siddha for treating kabha [lung] diseases and COVID-19 transmission is also prevented by high temperature and humidity the same methodology may be useful for the treatment of COVID-19. [4]

Medicated Deep Steam Inhaling [MDSI] is done by boiling the herbs in water and then deeply inhaling the steam, which results in high temperature and humidity in the body. This very special and ancient method used in Siddha is fully agreeing with the current research made. Thus this method is evidence-based, safe, and easily available. So we can fully utilize this method for the treatment of COVID -19. In MDSI, a special group of herbs that can generate heat in the body is suggested. Since the COVID -19 virus is killed in high temperatures and humidity, this special heat-generating [Veppam thanmai], stimulant herbs can be taken to create safe, high-temperature conditions in the body. Also, we have diaphoretic herbs which can cause high natural perspiration in the body resembling highly humid conditions. [4]

A combination of notchi and manjal decoction with Anti-spasmodic, Bronchodilator, Anti-inflammatory, expectorant, and anti-viral properties can be used to kill the virus responsible for the diseases. This will result in a very drastic improvement in curing COVID-19 cases. Our simple traditional Siddha medicine must have great potential to manage such big diseases. [4]

CONCLUSION:

The Siddha system of medicine contains both internal and external medicine modalities. External modalities are needed at different stages to control the affected Dosham or mitigate them along with internal medicines. Among them, Vedhu is one of the external modalities which could be instituted largely with locally available resources and therefore is accessible and affordable to the entire society. Even though Vedhu is one of the non-invasive procedures; unfortunately, it is not being practiced. Vedhu has important role in managements of various nasal diseases by reducing the – Nasal Mucociliary Clearance time significantly [12]. This review will be more helpful for further research on its action potential in the prevention and management of COVID-19.

ACKNOWLEDGEMENT:

Special thanks to the Director, NIS for granting permission to undertake the work; and all my friends and faculty for guiding.

CONFLICT OF INTEREST: None

SOURCE OF FUNDING : None

REFERENCE:

1. https://www.who.int/health-topics/coronavirus#tab=tab_3
2. Dr. G. Senthil vel MD [S], Ph. D., and Dr. J. Jeya venkatesh MD [S], Ph. D., A Complete manual on Siddha external therapies, published by Shanlax publication, Madurai.
3. Dr. T. Thirunarayanan and Dr. R. Sudha, External therapies of Siddha medicine first edition 2010 published by center for traditional medicine and research. Page no:92.
4. S.Mohamed Ajmal, M.Naga lakshmi, M.Nandhini, G.Meenadharshini, P.J.Kowshika shree, T.Keerthiga, A.P.Uma. [2017]. Standard Operative Procedure on External therapies in Siddha system of medicine. Int. J. Curr. Res. Med. Sci. 3[7]: 112-127. DOI: <http://dx.doi.org/10.22192/ijcrms.2017.03.07.018>
5. <https://www.financialexpress.com/lifestyle/health/how-coronavirus-enters-the-body-infects-people-explained/1940781/>
6. Vedhu Pidiththal [Medicated Deep Steam Inhalation - MDSI] is a method suggested by Siddhar Theraiyar Sekarappa for control of COVID-19

- [Evidence-based, safe, curable, and easily available herb method] by Dr P. Jeyanthi BSMS Registration Number: Tamilnadu Siddha Medical Council 330 Dr. MGR medical university, Chennai, Tamilnadu.
7. Dr. K. N. Kuppusaamy mudhaliyar HBIM Published by Indian medicine and Homeopathy, Arumbakkam, Chennai-600106.
 8. Dr. K.S. Uththamarayan HBIM, Siddhar Aruvai Maruthuvam Published by Indian medicine and Homeopathy, Arumbakkam, Chennai-600106.
 9. Dr. R. Thiyagarajan, L.I.M., Gunapaadam Thaathu jeeva Vaguppu, Published by Indian medicine and Homeopathy, Arumbakkam, Chennai-600106.
 10. Dr. K. S. Murugesu mudhaliyar, Gunapaadam porutpanbu nool, mudhal paagam- Mooligai Published by Indian medicine and Homeopathy, Arumbakkam, Chennai-600106.
 11. Dr. C. Kannusaamy Pillai, Padhartha Guna Sindhamani by Published by Indian medicine and Homeopathy, Arumbakkam, Chennai-600106.
 12. Atishkumar B. Gujrathi, Vijayalaxmi Ambulgekar, Ashwini Handal Effect of steam inhalation on nasal mucociliary clearance in normal individuals and nasal disease state. International Journal of Contemporary Medical Research 2016;3[5]:1262-1264.
 13. Sharma, P.K., Garg, G., & Salim, M.R. [2011]. Review On Nasal Drug Delivery System with Recent Advancement. Int J Pharm Pharm Sci, Vol 3, Suppl 2, 2011, 6-11.