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Pragmatic plan for Siddha intervention *Vedhu* (Steam inhalation), *Pugai* (Fumigation), *Nasikabharanam* (Powder nasal application) in COVID -19 Pandemic – A Review

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Abstract

One of the more traditional medical systems is the Siddha system. Within this system, remedies for a range of ailments have been prepared using herbs, metals, minerals, and animal products. The primary external therapies of the Siddha system are *Pugai maruthuvam* (Medicated Fumigation), *Vedhu* (Steaming), and *Nasikaparanam* (Powder Nasal Application). Siddha medications are classified into two categories: internal and external. The coronavirus is a member of a virus family that can cause a number of symptoms, including fever, lung infection, pneumonia, and difficulty breathing. The World Health Organization (WHO) referred to a coronavirus that infected individuals with pneumonia in Wuhan, China on December 29, 2019, as the 2019 new coronavirus. During the critical period of covid-19, we may employ these herbal powders and drugs for nasal inhalation. Thus, *Pugai*, *Vedhu*, and *Nasikabharanam* may be able to assist us get rid of covid19 in the future. This review paper introduces a new research route in the treatment of covid-19, as well as a prevention measure of infection, providing a timely initiative therapy strategy for covid-19. When executed in an integrated manner, the outcome is uncertain.

Keywords: *Vedhu*, *Pugai*, *Nasikaparanam*, Covid19, *Kabasuram*, *Sanni suram*

Introduction

The Siddha system is an ancient medical system. Herbs, metals, minerals, and animal products have all been employed in this system to make medications for a variety of ailments. Siddha remedies are classified as internal or external, with Pugai maruthuvam (Medicated Fumigation), Vedhu (Steaming), and Nasikaparanam (Powder Nasal Application) being the most common external therapies. Nowadays, most Siddha practitioners focus solely on selecting a mix of internal medications to treat specific ailments. At the same time, they do not place equal emphasis on external therapies, despite the fact that our Siddha sages placed emphasis on both internal and exterior therapies by defining thirty-two types of each. Even in external therapy, some therapies, such as Marthanam (massage), Odivu murivu (bone setting), Otradam (fomentation), and Patru (poultice), are done by only a few qualified practitioners. External therapies in Siddha medicine are the primary strength of our Siddha System of medicine, and they are already widely used in local health care practices among Tamil-speaking peoples. (1)

The 2019 novel coronavirus will be known officially as coronavirus illness (COVID-19), according to the WHO. The current nomenclature for the virus is severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). In December 2019, it was revealed that a cluster of people with pneumonia of unclear etiology had been linked to a local Huanan South China Seafood Market in Wuhan, Hubei Province. More than 15 million COVID-19 cases have been confirmed over the world. Since the first reports of cases from Wuhan, a city in China's Hubei Province, at the end of 2019, cases have been reported on every continent except Antarctica. (2)

COVID-19 has been reported in all 50 US states, Washington, DC, and at least four territories. The cumulative incidence varies by state and is most likely determined by a variety of factors, including population density and demography, the scope of testing and reporting, and the timing of mitigating initiatives. In the United States, outbreaks in long-term care institutions and homeless shelters have highlighted the dangers of exposure and infection in crowded settings. Covid-19 is a similar condition to Kabasuram, Kabavatha Suram, and Sanni Suram. Among the numerous therapeutic techniques, Vedhu (steam inhalation), Nasikaparanam (nasal powder inhalation), and Pugai (Medicated fumigation) have been shown to have better absorption and faster action.

This article provides a full scientific assessment of Vedhu (steam inhalation), Nasikaparanam (nasal powder inhalation), and Pugai (medicated fumigation) in the treatment of covid-19 patients.(3)

Vedhu treatment (steam inhalation)

Definition

Vadhu is defined as a way of inducing perspiration with medicinal steam. It is also known as Sweat Therapy. It treats hypersensitivity of hair follicles, pricking pain, and organ spasms. It calms and softens the spastic organs. Vedhu is one of the 32 types of external remedies. It came in fifth position among 32 external therapies.

“Vedhupot tanamthokkanam”

-Theraiyar tharu

It is also known as Neeravi sigitchai in several Tamil medical books. It is a basic treatment designed to balance disordered humours. It improves mucus membrane congestion associated with bronchitis and allergic asthma. It clears mucus from the lower respiratory system and relaxes chest muscles, hence reducing cough. Vedhu was traditionally used to treat common colds, headaches, sinusitis, eye disorders, and other ailments. (4)

Steam inhalation

Medicated vapors are allowed to enter the respiratory tract through the nose when inhaled via steam. It reduces inflammation and congestion in mucous membranes in the respiratory tract and paranasal sinuses. It softens the thick, sticky mucus and facilitates its removal from the respiratory tract. Sweating produces heat and moisture to avoid dryness of the mucosal membranes of the lungs and upper respiratory passages, as well as increased oxygen absorption. The medicinal fumes have antibacterial properties on the respiratory tract. (Table 1)

Arisinai Notchivedi yattaralcheng kallae

- Theraiyar yamaga venppa.

Table 1: Medicinal Uses

<p>Arisinai -Turmeric Powder</p>	<p>Getting steam inhalation with turmeric powder reduces the upper respiratory problem with sinusitis.</p>
<p>Notchi (Vitex negundo)</p>	<p>Notchi leaf is also used instead of turmeric powder.</p>

Vedi - Styrax benzoin	Also used steam fumigation.
Attaral – Hot water	Getting steam inhalation with hot water reduces headache, heaviness of the head and sinusitis.
Chengal – Brick	Brick is subjected to burn and immersed in hot water, expelled steam is advised for inhalation. It indicates respiratory illness.

Eligible criteria:

Vedhu is not advised in infants, Pregnant women.

Duration of the treatment:

The entire treatment is usually given for 10-15 minutes.

Indication:

Sinusitis, common cold, Body pain, Swelling, Paralysis, Oliguria. (5)

The scientific aspect of *Vedhu*:

Covid-19 compared with **Kabasuram**,

**"Veyyacuran taṇilirumal turappu vikkal
meykuḷirta luṭaṇ vērvai yuramve tumpal
ceyya mukaṇ karampātam veḷuttuk kāṭṭal
tiyakkamuṇal mūccilaittal piratā paṅkaḷ
aiyaṭaittuk kuṟukuṟutta laticā raṅka
ḷaṇaleḷumpa lāṇakuṇa mavaikaḷ kaṇṭāl
aiyacura macātyamā meṇṟē yinta**

vāyāṅ naṅ maraiyati liyampi nārē.”

"Mukamatu veḷukkum nāḱku

muṅṅuṅa vuruci yillait

takamuṭa n̄irumal vikkal

tantumār toṅṭai nōkum

makavuṭal tiṅavu vāyn̄ir

aṭittoṭai cōrva tākum

cekamutal curantāṅ kāṅil

cēttuma meṅṅa lāmē.”

Siddha Maruthuvam Pothu Page Number 28,29

In the Siddha system of medicine, treatment is based on vitiated humours (Vadham, Pitham, Kabam). For vitiated Vatham, purgative medicine is given to normalize; for vitiated Pitham, vomiting (Vamanam) is used, oil bath is used; for vitiated Kabam, Nasiyam, Nasikabharanam, Vedhu procedure was used; by using Vedhu, sweat increased (sweat - Kabham) and evaporated, and Kabham became balanced. (6)

Pugai (Medicated fumigation)

Pugai is a fumigation method in which the medicinal fume is produced by immediately burning the medicine or putting it on fire. Pugai is one of 32 external therapies. Pugai is ranked tenth among 32 external therapy series.

MenPugaimai podithimirthal kalikkanasi yamoothal

-Theraiyar Tharu

Pugai is the most effective disinfection and sterilization method for treating sinusitis, constricted respiratory pathways, anorectal disease, headache, fever, and chronic ulcers. According to Theraiyar Tharu. This treatment incorporates artificial impregnation through environmental cleaning, as well as local healing, disinfecting, and sterilization acts on the local or inner areas in the form of medicated smoke. It is administered to the patient in the form of medical fume made from any plant such as pepper, cumin, turmeric, or sandalwood, as well as a few prepared medications such as Agasthiyar kuzhambu, kousigar kuzhambu, and vidakuzhambu for fumigation purposes. Fumigation prevents infection from spreading to the organs' lower levels. Smoke may be applied using smoke pipes. They were previously known

as sukkan kuzhal, peenkan kuzhal, and beedi, among other names. The smoke pipe may have 3 finger breadth long, 7-8 mm in diameter and have a small hole on each node. (7)

Types of fumigation:

According to the physical nature and administration, it is classified into three types.

- Fume inhalation through **nostrils**. It is performed by burning medicated wicks.
- For respiratory disorders – **Datura metal flower** fumigation is used
- Fume inhalation through the **mouth**
 - It is performed by burning the drug rolled in a dry leaf or by the medicated cotton wick. The fume inhalation through the nostrils or mouth is generally performed by burning a medicated stick using a smoke pipe.
- For respiratory disorders – **Adathodai dry leaf** fumigation is used
- Fumigation on the **site** or the **environment**
 - It is performed by generating smoke by putting drugs in the coal fire or exposing fumes on the septic wound by burning a medicated wick.
 - **Environment** – **Styrax benzoin** fumigation is commonly used as an antiseptic.
 - **Site** – **Agasthiyar kuzhambu** is used for non-healing ulcers. (8)

Eligible criteria:

Fumigation with toxic substances is not advised in newborns, infants, pregnant and lactating mothers, people under influence of alcohol, those suffering from head injury or lockjaw or Extreme dryness, Eye disease, Anaemia, Bleeding disorder, or Gonorrhoea. (9)

Duration of the treatment:

The entire treatment is usually given for 10-15 minutes for 7 days.

Indication:

Sinusitis, Bronchitis, Ear disease, Piles, Fistula, Chronic non-healing ulcers, Poisonous bites.

The scientific aspect of Pugai:

In Siddha, the name Kirumi is used in a broader sense, encompassing all pathogenic and nonpathogenic organisms that cause a variety of illnesses and infestations. Kirumi scattered along many pathways. Pugai recommends our Siddha scriptures for preventing kirumi (microbes). Various medicinal plants were set on fire, and the smoke produced was utilized to sterilize various sites (non-healing sores) and settings (affected areas). Pugai is a medicated fumigation treatment used in homes to eliminate microorganisms in the air. It was employed in ancient times to treat Kollainoikal (epidemic sickness), according to Siddha literature. (10)

Naasigaparanam (Powder nasal application):

Nasikaparanam is defined as the method of applying dry nasal powder into the nostril. Other names for it include nasal snuff and nasal powder. Dry raw pharmaceuticals are crushed, finely powdered, and filtered through a thin cloth. A fine powder of panai edai (488 mg) is utilized for application.(11)

Introduction:

Nasikaparanam is an external method of application of dry powder or snuffs into nostrils (Medicated snuff). According to Therayar Tharu, *Nasikaparanam* is placed in fourteenth place in 32 external therapies series.

Mevunaa sigaaparanamum**-Theraiyar Tharu**

Uthal is an air-based medicine blown into the nose or the affected openings.

Nasikaparanam is one of several nasal inhalation procedures. Special care should be exercised when administering nasal snuff for various conditions. Nasikaparanam is used to treat throat infections, fever-related symptoms, delirium, epilepsy, psychiatric disorders, pneumonia, and toxic situations. It is a form of insufflation that involves breathing dry powder material via the nostrils. Chemical molecules swiftly absorb it into the bloodstream via the sinus cavity's soft tissue and mucous membrane.

A few medications have a better rate of absorption and are more effective in lesser dosages when administered nasally. Few herbal medication powders, herbal fluids, or herbs soaked in milk are dried, ground into a fine powder, and put to the nostril. Naasikabharanam is commonly used to treat Kabha humour imbalances, delirium, epilepsy, psychiatric disorders, sinusitis, glaucoma, and ear, nose, and throat problems.

Nasikabharanam is used to treat nasal infections, inhibit fungal and viral growth, disinfect the affected area, remove blockages, revert unconsciousness, and eliminate watery mucus waste. (12)

Types of *Naasigaparanam*:

According to the physical nature and administration, it is classified into two types.

1. Blow the dry powder using mouth air.
2. Blow the dry powder using a 6 inch pipe.

Eligible criteria:

Naasikabaranam is not advised in **infants**.

Duration of the treatment:

The entire treatment is usually given for 1-2 minutes.

Indication:

Sinusitis, Common cold, Rigor, Fever, Delirium, Eye disease.

Naasigaparanam for various diseases:

- Thirikadugu Chooranam is snuffed into the nostril for treating Sinusitis.
- Sivanar amirtham is snuffed into the nostril for throat disease, fever, Psychological disorder, poisonous condition, unconsciousness, and Delirium.

Scientific validation:

The process during therapy

- Cleans the surface impurities from microbes like fungi etc.
- Protects the nostrils from toxins and allergens
- Maintains the mucous membrane disinfected
- Excretes the waste immediately
- Allows the mucous membrane for faster absorption.

The nose is an earthly organ (man pootham). When the dry powder is inhaled, the fire elements (thee pootham) increase, reducing the Kabham. As a result, Naasigabharam is the most effective treatment for Kabhasuram, and it can also be used to cure anosmia in covid patients.

Discussion:

The Siddha system of medicine is a long-lasting medication developed by Siddhars (who achieved immortality). The Siddha system includes 32 types of internal and exterior remedies. Vedhu, Pugai, and Nasikaparanam were inexpensive emergency drugs. Vedhu (steam inhalation) is one of the fastest modes of absorption, therefore it serves as a ventilator; steam inhalation stimulates and absorbs hair follicles. There are many microscopic capillaries beneath the skin that connect to the bloodstream; also, steam inhalation reduces the Kabham and may be used for Kabhasuram (covid 19). (13)

Pugai is a medicated fumigation treatment used in homes to eliminate microorganisms in the air. It was utilized in ancient times for kollainoikal, according to Siddha literature. Turmeric powder and neem leaves were used to fumigate residences infected by the pox virus. According to a recent study, fumigation of herbal powders reduces the microbial load in the air. A previous study evaluated the antimicrobial activity in SDA and NA agar plates, and the microbial flora was studied before and after fumigation, and the data showed a significant reduction in microbes. (14)

On July 8, 2019, WHO announced that COVID-19 is an aerobic infection. As a result, infection can be efficiently averted by fumigating houses, hospitals, and covid wards using herbal powder. Nasikabharanam is a nasal inhalation method utilized by Siddhars in ancient times during emergencies. In Covid 19, the critical stage is compared to Sannisuram. Excess seethalam in the critical stage combines Kabham humours, resulting in organ dysfunction. Nasikabharanam is utilized in such cases to diminish Kabham humour. The nose is the simplest and fastest way of absorption; by inhaling dry powder, it is immediately absorbed in the nasal mucosa and moves upwards to reach the olfactory bulb, stimulating the olfactory nerve and reducing anosmia, one of the symptoms of covid 19 patients. (15)

Conclusion:

According to the review, the external remedies mentioned in the Siddha literature include steam inhalation, fumigation, and powder nasal application. In addition to Siddha internal medications and modern treatment, there could be preventive measures against infection that are effective in covid 19.

References:

1. Thiagarajan R, Gunapadam thathu – Jeeva Vaguppu, Chennai: Directorate of Indian Medicine and Homeopathy, 4th edition, 1992. Page no:79.
2. Uthamarayan K S, Siddha Maruthuvanga Churukkam, Chennai, Directorate of Indian Medicine and Homeopathy, 3th edition, 2003. Page no:210.
3. Ramachandran S P, Theraiyar Vaidhiyam 1000, Chennai: Tharamarai Noolagam, 1st edition, 1999. Page no:113.
4. Kuppusamy Mudaliar K N, Siddha Vaidhiya Thirattu, Chennai, Department of Indian Medicine and Homeopathy, 1th edition, 1998. Page no:63.
5. Cinela celine, Dr. Sindhu, Microbial growth inhibition by aparaita dhooma Chooranam, Ancient science of life, Microbiology division, The arya Vaidya pharmacy (CBE), Palakkad, m March 2007.
6. Mohamed ajmal S, Standard Operative Procedure on External therapies in Siddha system of medicine, International journal of current research in medical science, Volume 3, July 7th 2017.

7. Sumitha L, Evaluation of Antimicrobial and Antifungal properties of Dhoopana Karma (Fumigation)- by “DHUP” an ayurvedic Dhoopana product, International journal of Pharmaceutical science and Research, published on July 1st 2015. Vol -6 Issue -1.
8. Ramachandran S P, Theraiyar Vaidhiyam 1000, Chennai, Thamarai noolagam, 1st edition, 1999. Page no:101
9. Ramachandran S P, Agasthiyar paripooranam 1200, Chennai, Thamarai noolagam, 1st edition, 1997. Page no:142
10. Ramachandran S P, Agasthiyar Ayurvedham 1200, Chennai, Thamarai noolagam, 1st edition, 1999. Page no:168
11. Uthamarayan K S, Siddhar Aruvai Maruthuvam, Chennai, Department of Indian medicine and Homeopathy, 4th edition, 2005. Page no:41,43.
12. Venugopal P M, HPIM, Udhal thathuvam, Department of Indian medicine and Homeopathy, 5th edition 2016.. Page no:96.
13. Kuppusamy mudaliyar K N, Siddha maruthuvam (Pothu), Department of Indian medicine and Homeopathy 8th edition 2016.. Page no:108.
14. Sivakumar S, Effect of classical herbo- mineral formulation Agasthiyar Kuzahmbu Fumigation therapy on Silaipun (Varicose ulcer)- A case study, International journal of Pharmaceutical science and Research, published on March 1st 2018. Vol -9 Issue -3.
15. Kajaria divya kumari, Nebulization therapy- A Novel Approach to drug delivery system in Ayurveda, International research journal of pharmacy, published on 14 /11 /11.