Agnihotra-Yagya and numinous sound -Prototyping strategy for pandemic prevention

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ABSTRACT

Ayurveda management comprises of three categories, Yuktivyapashrya includes medication, Daivavypashray are Divine therapies and Satvavajay deals with mental health. Agnihotra -Yagya is one of the therapies of divine management. It is fire offering of medicinal herbs along with cyclic uttering of Sanskrit words by experts. Present study aims to provide prototype of strategy for pandemic prevention. Numinous sound in form of Mantra along with mechanical heating of Agnihotra produces shorter wavelength of electromagnetic spectrum range and set certain vibrations in presence of solar energy at tissue level which inactivate the viruses and other microorganism present in inner as well as outer environment.Relevant literature was searched and incorporated in the study. Agnihotra, Yagya, Mantra, electromagnetic waves and others were the main words used for the search.Putting medicinal substances in Agnihotra fire is a scientiﬁc method of transformation of matter into energy and the process may be referred as sublimation. It can be postulated that there is generation of electromagnetic spectrum under the inﬂuence of solar energy and sonic potential of Mantra, the numinous sound. Interaction between microwaves and biological tissues draws solution to inactivate airborne viruses thus creating certain vibrations converting the whole process into a scientiﬁc operation involving each tissue of human body along with minute particles of surrounding environment.Considering its multi-dimensional aspects, at small scale, Agnihotra can be recommended at homes, hospitals, public places in presence of experts on daily or weekly basis. By adapting this ritual with scientiﬁc perspective, pandemics can be prevented. It is diﬃcult to test combined therapeutic effect of all medications used in Agnihotra. With the evidences suggesting antimicrobial, Neurodynamic and spiritual effects, Agnihotra cannot be ignored by young scholars.

INTRODUCTION

Evidence based and sound research is testing spiritual principles with scientiﬁc experimentation and systematic interpretation to cure aesthetic gaze of world. Just because Ancient spiritual sciences are under skeptical area, humankind is forgoing the excellence in mental physical and spiritual health which can be acquired imbining spiritual precepts.

The fire offering along with cyclic uttering of Sanskrit words creating numinous sound is described as navel (nucleus) of the whole world by oldest of
Vedas, Rigveda and Yajurveda (Concept of Sacrifice vaina, 2020a). As per Rigveda, Agnihotra yajna is the holy process in which obligations are offered to fire which is lit in inverted copper pot, along with uttering of Mantra (Nautiyal et al., 2007). Havan, Homa or Agnihotra are the synonyms of the Yagya procedure. Atharvaveda narrates the Sound, Mantra with therapeutic perspective. The Samaveda deals with the pattern of chanting the sound, Mantras. The Yajurveda focuses on the standard operating procedures, detailed methods of performing Agnihotra Yangya. In performing Agnihotra-yagnya along with recitation of certain hymn which here, has been considered as numinous sound, traditionally refereed as Mantra.

Current measures for pandemic prevention

Current measures for disinfection include intensive chemicals, ultra-violet radiations and thermal heater with microwaves. In areas with population, this may lead to hazardous health effects. This made scientists to study vibrations of certain frequency in this may lead to hazardous health effects. This made scientists to study vibrations of certain frequency in areas with population, thermal heaters, which supports the proposed theoretical model with adequate insights to various aspects of this ancient ritual.

Agnihotra and Cyclic Numinous sound (Mantra)

Cyclic numinous sound is produced by chanting Sanskrit Mantra. According a study, an Antimicrobial activity was performed using disc diffusion method. Antimicrobial data revealed that the smoke-extract obtained from Yagya experiments with mantra chanting had higher zone of inhibition values compared to that of same experiment conditions except presence of mantra chanting suggesting an important role of the mantra chanting in Yagya for medicinal applications (Singh and Singh, 2018).

Prevention from viruses keeping public safety intact had become challenge to the modern science and if experiments performed, takes huge cost. As per Rigveda, metaphorically, smoke from Agnihotra-yagnya spreads in space or surrounding and directs arrow towards the viruses and bacterias to vanish them (Concept of Sacrifice vaina, 2020b). Here, It can be interpreted that the fumes travel long distance as formaldehyde created from the combustion (McDonnell and Russell, 1999). Process has limitation of area.

As per Rigveda, The offerings are provided with steel teeth by Agnihotra fire to cut the flesh consumers and a tongue to engulf these enemies (Concept of Sacrifice vaina, 2020c). Here, Seers talk metaphorically, that the ingredients get potent in contact of fire of Agnihotra and disease causing agents are referred as flesh eaters. Among various objects mentioned in Veda, which get destroyed with Agnihotra. Dronaschyavavano is the term used for the objects entering with breath through nose (Concept of Sacrifice vaina, 2020j). These may manifest respiratory symptoms at early stage. Thus, we get the adequate indications of Agnihotra for prevention of disease causing agents which are present outside the body or outer environment.

Difference in Medicated smoke therapy (Dhupan Chikitsa) and Agnihotra

Smoke generated from burning herbs or medical fumigation alone is called as Dhupan Chikitsa. which may have limitations though is used for the eradication of germs as per Ayurveda. Agnihotra with numinous sound, Mantra with special offerings in fire by experts is Standard operating procedure which has multidimensional aspects in terms of health. The present study is a scientific investigation of ancient literature and modern references to obtain working principle of Agnihotra with numinous sound and to conceptualize a role of Agnihotra in epidemic prevention. This can be considered as theoretical model with adequate insights to various aspects of this ancient ritual.

MATERIALS AND METHODS

Relevant literature was searched for the name Agnihotra, Yagya, Mantra, electromagnetic waves and others.

Depending upon nature of the research, Results and Discussion are clubbed together.

Standard operating procedure of Agnihotra-Yagnya-Hawan as per Rigveda and Yajurveda

Three main materials are offered in Yagya, 1. Cow’s Ghee-clarified butter 2. Dried Medicines, aromatic substances and woods 3.Other edibles including sugar. Fuel source used is cow dung cakes. Firstly
fuel, secondly clarified or purified butter followed by various materials offering and putting it into the fire of Agnihotra protects the environment and simultaneous chanting of Mantras from Veda induces the sense of well being in Agnihotra performer (Concept of Sacrifice vaina, 2020d).

**Copper pot**

It has structure resembling pyramid kept inverted. Substance used is copper. Copper pot having its wide open mouth measuring 14.5 cm. The bottom is 5.25 cm and its height is 6.5 cm (Berk and Sharma, 2015). Copper resonates energy. Also, body of performer acts a crystal which is in its resonance during the procedure (Cousens, 2005). Thus oscillations can occur in body at certain frequency. These oscillations can be electromagnetic or mechanical. In same way copper may function. Copper (Cu) pot used is in shape of an inverted pyramid. Copper is universally proven thermal and electric conductor. It is resistive to corrosion and is non magnetic in nature.

**OFFERED INGREDIENTS IN AGNIHOTRA**

**Ghee - Purified butter**

*Cow's Ghee* is used in procedure as the major ingredient. Combustion effect of Ghee acts on respiratory system by eliminating the unwanted substances residing in nasal passage, bronchioles and lungs (Kaur et al., 2016). *Rigveda* and Atharvaveda advise us to protect the cows, as its abundance on earth is reward for human health (Concept of Sacrifice vaina, 2020e). *Homa/Agnihotra*, in which Ghee is used, is strong and acts against negative elements (Concept of Sacrifice vaina, 2020b).

**Medicinal woods**

Wood is the important ingredients to put in fire of Yagya. *Samidhas* are short sticks of wood. Also, its size depends upon the fire pot, *Agnikunda*. Healthy and dry wood sticks are preferred.

The main types of wood used and other substances called *Havishya* or *Havan samagari* (offerings) are compiled Table 1.

**Ethanopharmacological aspect of medicinal smoke of Agnihotra as disinfectant**

*Havi-Dravya* (Oblations) work like medicine to provide a soothing effect (Concept of Sacrifice vaina, 2020f). Medicinal fumigation as disinfectant process is the old cultural practice (Nautiyal et al., 2007). The specific ingredients along with woods has been considered to possess particular therapeutic effect (Kaur et al., 2016). Fire acts as driving force for the ethanopharmacological action of the medicines used in the Yagya. The inhalation of medicated smoke as the result of high temperature has the rapid action on human body in the simpler form (Nautiyal et al., 2007). The presence of essential oil and volatile aromatic compound in wood implies its role in health management. Formaldehyde is the result of oxidation of aromatic hydrocarbons at partial level (Ayilffe and English, 2003). Basic aldehyde having antimicrobial properties is Formaldehyde which kills microorganism by reacting with its proteins and peptides. While Agnihotra is not devoid of formaldehyde production in small amount though. Throughout the medieval period, there was use of herbs and aromatic substances for fumigation to prevent Yersinia pestis, bacterium causing bubonic plague (Nautiyal et al., 2007; Shilling et al., 2013). A Study has analyzed the possible health effects of medicinal fumigation comprised of single as well as combined herbs from 50 countries (Mohagheghzadeh et al., 2006). Formaldehyde released from medicinal combustion is strong as compared to the other higher aldehydes. Steady combustion of woods leads to the germicidal action as the result of volatilized aliphatic acids (Concept of Sacrifice vaina, 2020g; Alade and Irobi, 1993).

**Aroma**

The olfactory system acts as mediator in the process of possible influence of pleasing fragrance on the hypothalamus and neurotransmitters. From 250°C - 600°C range of temperature in Yagnya to as high as 1200°C to 1300°C, thymol, eugenol, pinene, terpinol like substances are produced, spreading the aroma of a Yagya at considerable distance (Concept of Sacrifice vaina, 2020h).

**Uttering Sanskrit Mantra and creating numinous sound**

According to an American scientist, Dr. Howard Steingull, 110,000 sound waves per second are generated by Gayatri Mantra. Uttering of Mantras in specific manner leads to the generation of certain vibration which may have positive effect on living creatures.

**Electromagnetic aspect**

**Ancient perspective**

Letting incessant flow of energy (LIFE) describes itself. The oblations are offered while pronouncing the word *Swaha* at the end of each hymn which means well said or so be it. As per *Veda*, The second circle is created by the word *Swaha* and Oblations compel the fire to raise high in the air (Concept of Sacrifice vaina, 2020i). “*Swaha*” word is frequently uttered and the oblations are poured in fire with each *Swaha* word which makes a cycle and this cyclic
Table 1: Ingredients (Havan Samagri) to be used in Agnihotra Yagya

| Woods (Samhidha)          | Aromatic dried herbs | Grains, cereals, others | Sweets | Medicinal herbs                  |
|---------------------------|----------------------|-------------------------|--------|----------------------------------|
| Deodar (Cedrys Libani)    |                      | Saffron                 | Wheat  | Milk                             |
| Bilva (Aegle Marmelos)    |                      | Musk                    | Rice   | Fruits                          |
| Pipal (Ficus Religiosa)   |                      | Agar                    | Barley | Honey                           |
| Mango Indica (Mangifera)  |                      | Tagar                   | Sesame seeds | Dates                      |
| Deodar (Cedrys Libani)    |                      | Agar                    | Setaria italic | Dried grapes       |
| Bargad (Ficus Bengalen- |                      | Sandalwood wood         | Coral  | -                                |
| sis)                      |                      | Dhak or Palash (Butea   | Cardamum | Horse gram/Bengal gram   |
| Sandal-wood (Santalum     |                      | Jatiphal                | Red gram | -                               |
| Album)                    |                      | Gular (Ficus Glomerata) | Camphor | Peas                            |

action lands generating wave pattern. Therefore, to strengthen the wave pattern, it is recommended that everyone present at the place of Agnihotra says Swaha along with the main performer (Concept of Sacrifice vaina, 2020i). This wave pattern of sound with repetition produces heat and create electromagnetic waves at tissue level of human body fulfilling the desired effects. One of the effects is preventative, eradicating pathogens from the environment before getting the infections. Thus, Yagya has potential to transform the latent energy present in matter using thermal energy of Mantras, numinous sound. Interaction between microwaves and biological tissues draw solution to inactivate airborne viruses. The concept is supported by quotes in vedas (Gangadhara et al., 2011).

Modern perspective

Diffusion along with photochemical changes occur in volatile substances in presence of sunlight. This is the reason; Yagya is performed in the presence of sunlight. The short wavelength favors the process. According to recent model, resonant microwave absorption effect is, microwaves of the same frequency excite the specific vibrations of virus called confined acoustic vibrations. (CAVs) (Kraus et al., 2007). Possibly, structured resonant energy transfer (SRET) is the phenomenon working on CAVs. Theoretically, the vibration mode is excited by SRET. Photon is converted into phonon with complete energy transfer. Surrounding environment and its mechanical properties interfere with the overall efficiency of SRET (Concept of Sacrifice vaina, 2020a).

This study suggests, vibrations inside the virus can be excited with electromagnetic waves. Numinous sound of Mantra and Agnihotra smoke set the particles in certain vibrations which may affect the viruses present around through microwaves.

Neuro-dynamic aspect

Every Mantra in Agnihotra initiates with the holy word OM (AUM). Study shows, OM chanting evoke neurohemodynamic areas and influence neurochemicals (Sharma and Vijnana, 1978). This suggests that there is need of complete psychological and emotional involvement of Agnihotra-yagnya performer which is achieved through relaxation effect of making numinous sound by chanting various Mantras. In a study, Amygdale was observed deactivated as the result of OM chanting and in contrast, other parts of brain were neither activated nor deactivated (Huang et al., 2011). This is noticeable that except limbic system or amygdale, rest of the brain remained unaffected with OM chanting hinting the relaxation effect of the same at the emotional level.
CONCLUSION

Sound travels through minute particles in environment, inner and outer. The numinous sound in the form of Mantra set these particles at certain vibrations with help of thermal energy produced from uttering Mantra in cyclic pattern. This in turn, produces Wave of shorter wavelength of electromagnetic spectrum region. In this process, Ingredients offered in fire contribute in creating favorable environment in and outside the body. These waves created with vibrations of numinous sound along with medications transformed in fire may affect the pandemic causing agents. Fire lit (Agni) which is the core part of Agnihotra acts as medium for the whole process. Considering its multidimensional aspects, at small scale, Agnihotra can be recommended at homes, hospitals, public places in presence of experts on daily or weekly basis. By adapting this ritual with scientific perspective, pandemic can be prevented. It is difficult to test combined therapeutic effects of all medications used in Agnihotra. With the evidences suggesting antimicrobial, neuro-dynamic and spiritual effect, Agnihotra cannot be ignored by young scholars.

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Conflict of Interest

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