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PERSPECTIVE

Agnihotra Yajna: A Prototype of South Asian Traditional Medical Knowledge

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Abstract
This study conceptualizes the principle of agnihotra yajna. The perusal of ancient and modern literature reveals that the functioning of the human body is impossible without maintaining an energetic continuum driven by sunlight. The seven major chakras existing over the spinal cord help to maintain this energetic continuum. Agnihotra yajna is proposed to balance the chakra system as a whole by minimizing entropy. Offerings of natural elements to fire lit in a copper pyramid during agnihotra liberate various volatile compounds having potent pharmacological actions. Attempts were made to enhance the efficacy of fumes by incorporating two to three pieces of coconut endosperm and "navadhanya" (nine grains) to the conventional fire oblations. This investigation clearly demonstrates that the purpose behind the practice of agnihotra yajna is "letting incessant flow of energy (LIFE)" through our meridian lines and acupuncture points. The volatile organic compounds in smoke were analyzed using the gas chromatography—mass spectrometry method, and the results are discussed.

1. Introduction

The human body is a resonating crystal [1] that can receive and emit varying levels of frequencies in response to internal and external stimuli. As the functional aspects of human body systems revolve around three scientific terms, energy, entropy, and electron flow, nature is always meticulous in maintaining the homeostasis of the energetic components of the earth. Since ancient times, sunlight, the energy emanating from the sun, has been regarded as the ultimate source of energy available to the planet earth. A common ritual practice in Indian Vedic culture was for every person to pray to the sun prior to beginning daily activities. This act of worshipping the sun shows that people who lived in such ages perceived the benefits that the human body harnesses when it is exposed to early morning sunlight.

Since time immemorial, smoke emanating from the combustion of various parts of medicinal plants has been used for curing diseases/disorders [2]. The significance of the ethnopharmacological aspects of medicinal smoke reveals the role of fire as a driving force in evolution [2].

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Medicinal smoke released at high temperatures has been considered to be the simplest way to administer a drug as a rapid pharmacological action can be detected upon inhalation [2]. During the period of Sushruta (800—600 BC), fumes emanating from the combustion of mustard, salt, and butter were employed to eradicate microbial pathogens from ambient air [2,3]. Smoke released by burning *Peganum harmala* and/or *Santalum album* was believed to act as a layer that protected the king from all kinds of evil and diseases [2,4]. For the prevention of bubonic plague caused by the bacterium *Yersinia pestis*, smoke released from the combustion of incense, herbs, and aromatic essences was extensively used throughout the medieval period [2,3]. Moreover, another study has detailed the therapeutic effects of medicinal smoke emanating from single- and multi-herbal formulations from 50 countries [5].

In consideration of the above facts, worth mentioning is that the great saints of Saraswati—Indus civilization (approx. 9500 years ago) performed agnihotra yajna (fire offering) in order to purify the environment, as detailed in Rigveda (oldest of Vedas), in which certain natural elements were offered to the fire that was lit in an inverted copper pyramid; this was accompanied by the chanting of mantras [2]. Although agnihotra yajna is believed to have been practiced in those days mainly for purifying ambient air, we should understand that the act and art of performing agnihotra not only cleanses the atmosphere but also reduces the total entropy of the body—mind—spirit complex by balancing and aligning the seven major energy centers in our body (chakra system) over the spinal cord that regulate the energetic continuum of every human body [6] (Figure 1). These energy centers must be properly aligned in order to allow the free flow of pure cosmic energy (PCE; otherwise known as universal prana or life force) through the vortexes formed by the perpetual rotations of these centers [1]. The concept of PCE is identical to that of Chi (acupuncture system) and of Prana (Indian Vedic system), and it is considered to be the unprecipitated form of cosmic energy [1]. Once these chakras are aligned, the PCE absorbed by the crown chakra ("sahasrara" in Sanskrit language), which is known to be at the top of the brain, will flow freely [1]. This flow is crucial for energizing meridians and acupuncture points. If any imbalance exists in the energy flow through subtle energy channels, i.e., meridian lines, it will adversely affect our health. Most importantly, a less activated chakra will certainly have a negative effect on the endocrine gland associated with it.

In the present scientific investigation, I did an extensive survey of ancient literature and modern references to get adequate insights to conceptualize the working principle of agnihotra yajna. To perform this yajna, the performer would offer certain natural substances (usually cow dung, rice, and ghee) into the fire lit in a section of an inverted pyramid-like structure made of copper having a flat bottom (14.5 cm × 14.5 cm at the top, 5.25 cm × 5.25 cm at the bottom and 6.5 cm in height) [7]. On the basis of existing information regarding energy, entropy, meridians, chakra systems, and free electron flow, I have formulated a conceptual framework that describes the beneficial effects of agnihotra yajna. In addition, I added navadhanya (nine grains used in Indian Vedic systems) to the traditional oblations (Table 1); next, I used gas chromatography—mass spectrometry method (GC-MS) to identify the volatile components so as to evaluate the possibility of enhancing the efficacy of smoke therapy.

2. Materials and methods

This study required no ethical approval because no human or animal subjects were used. In this study, the traditional fire oblations (cow dung cake and unpolished rice), along

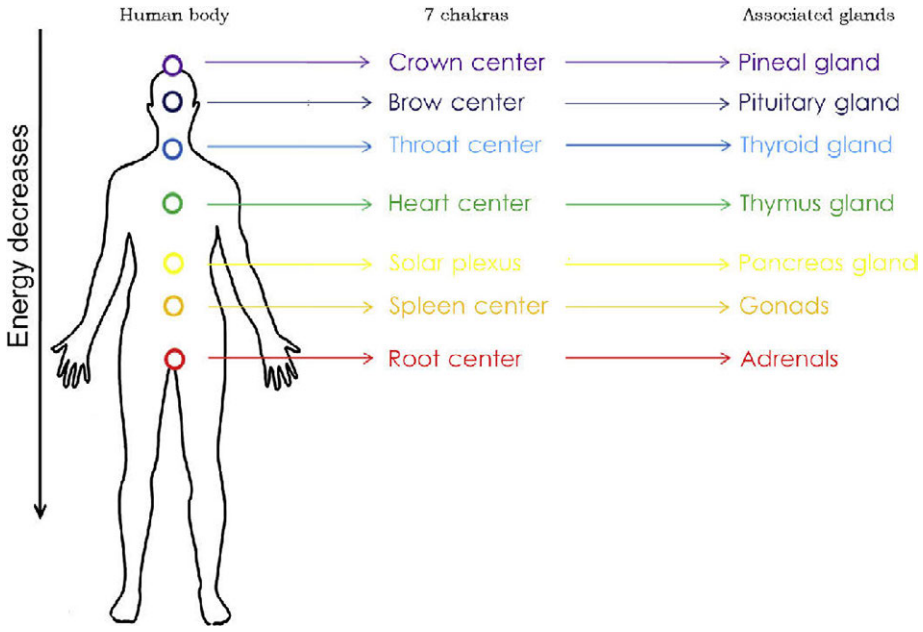

Figure 1 Chakras and associated glands.

Table 1 List of navadhanya used in certain regions of South India.

Sl. No	Navadhanya	Source
1	Wheat	*Triticum aestivum*
2	Rice	*Oryza sativa*
3	Red lentil	*Lens culinaris*
4	Green gram	*Vigna radiata*
5	Bengal gram	*Cicer arietinum*
6	White beans	*Phaseolus vulgaris*
7	Black sesame	*Sesamum indicum*
8	Horse gram	*Macrotyloma uniflorum*
9	Black gram	*Vigna mungo*

with two to three pieces of copra (coconut endosperm) and navadhanya, were spread sparsely in the shade at room temperature as drying under direct sunlight may degrade chemicals that are either heat or light sensitive. After the oblations had been dried, they were powdered in a household blender. Efforts were made to analyze all powdered samples within a period of 3 months.

A modification of the protocol of Alade and Irobi [8] was employed for the extraction. First, 100 g of the powdered sample, which contained equal amounts of all the chosen ingredients, was taken and soaked in 500 mL of 70% alcohol for 72 hours. After this treatment, the mixture was subjected to orbital shaking at room temperature for 72 hours. After 72 hours, the mixture was allowed to pass through Whatman filter paper No. 1 (Whatman, Maidstone, UK), and the filtrate was concentrated in vacuum. The resultant solution was stored at 4°C.

A PerkinElmer GC Clarus 500 system (PerkinElmer, Shelton, USA) with an AOC-20i autosampler and GC-MS equipped with an elite-5MS (5% diphenyl/95% dimethyl polysiloxane) fused to a capillary column (30 × 0.25 μm ID × 0.25 μm df) was used to obtain the GC-MS spectrum of the prepared extract. The electron ionization system was run in the electron impact mode with an ionization energy of 70 eV for GC-MS detection. Helium (99.99%) was the carrier gas, and the flow rate was maintained at 1 mL/min. The injection volume was adjusted to 2 μL. The temperatures of the injector and the ion source were maintained at 250°C and 200°C, respectively. The oven temperature was programmed to maintain isothermal conditions for 4 minutes at 100°C, which was followed by an increase at a rate of 10°C/min to 300°C, ending with a 6-minute isothermal at 300°C. The total GC-MS running time was 30 minutes. The mass detector was a Turbo-Mass Gold-PerkinElmer system (PerkinElmer, Shelton, USA), and Turbo-Mass version 5.2 was used to study the mass spectra and the chromatograms.

3. Results

Although numerous peaks were observed in the GC chromatogram (Figure 2), an effort was made to analyze only the 17 dominant peaks (Figure S1; Table 2). Fumigation and fumigating substances play a vital role in realizing the benefits of agnihotra, as has been reported [9]. The process of fumigation is determined by the boiling point and the vapor pressure of the volatile substances/compounds involved [9,10]. The structure of the agnihotra pyramid has been reported to create a temperature gradient across it, i.e., the bottom of the pot may be at 300—400°C, and the portion just above the flame may be at 1200—1300°C [9]. When the flame becomes less intense, the upper limit of the temperature gradient limit may be 600—700°C and the lower limit may be 200—300°C [9]. This region can be termed as the "potential fumigation zone" (PFZ) because the most active and potent fumigation occurs in this region and the supply of air is limited [9]. The majority of hydrocarbons in the PFZ region undergo partial oxidation and give rise to the formation of various products because the autogenous ignition temperatures of most hydrocarbons are in the range of 500—600°C [9,11]. The products that are liberated during the performance of agnihotra yajna using modified ingredients are as follows: (1) in the PFZ, aromatic compounds of high boiling point and other oils vaporize and are liberated into the atmosphere; (2) from the bottom of the pyramid (colder regions), major compounds that are liberated are esters, borneol, and organic acids. Comprehensive analysis using other techniques may reveal the presence of compounds other than those listed in Table 2; (3) the esters listed in Table 2 have pleasing aromas that may influence the hypothalamic control of hormones and neurotransmitters by inducing certain responses via the olfactory system [12]; (4) the hydrocarbons identified in

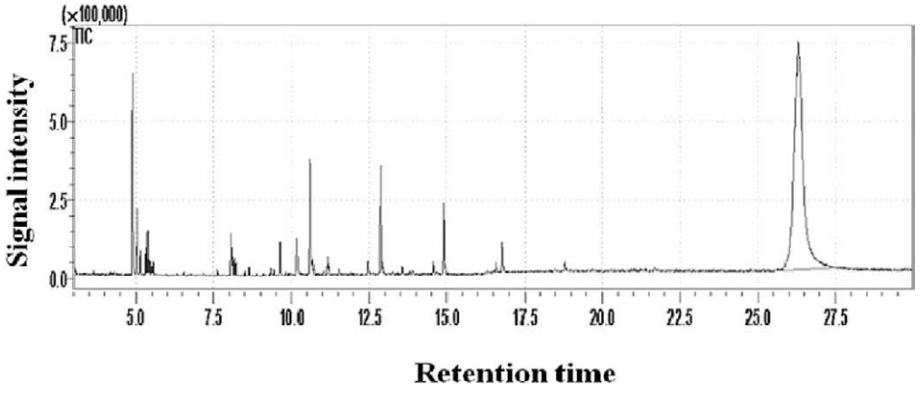

Figure 2 GC chromatogram of modified fire oblations used for agnihotra yajna.

Table 2 Identified major compounds in the agnihotra sample*.

Sl. No.	Name of the compounds	Retention time (Min)
1	Isoborneol (exo-2-hydroxy-1,7,7-trimethylnorbornane)	05.00
2	Borneol (endo-1,7,7-trimethyl-bicyclo[2.2.1]heptan-2-ol)	05.10
3	1-dodecene	05.30
4	Ethyl octanoate (caprylic acid ethyl ester)	05.35
5	n-tridecane	05.40
6	n-octanal (caprylic aldehyde)	05.50
7	Endo - isocamphonone	05.60
8	1-tetradecene	08.00
9	Ethyl decanoate (decanoic acid ethyl ester)	08.09
10	Hexadecane	08.15
11	Elemene	08.20
12	2,4-bis(tert-butyl)-phenol	09.60
13	Dodecanoic acid (lauric acid)	10.17
14	Ethyl dodecanoate (lauric acid ethyl ester)	10.60
15	Ethyl behenate (behenic acid ethyl ester)	12.80
16	1-hexadecanol	16.70
17	Lirioresinol beta-dimethyl ether (1H,3H-furo[3,4-c]furan, tetrahydro-1,4-bis(3,4,5-trimethoxyphenyl)	25.90

* Results (identification of compounds) are based on a similarity search in the GC—MS library.

Table 2 again undergo partial oxidation and produce methyl alcohol, ethyl alcohol, formaldehyde, acetaldehyde, and formic and acetic acids; and (5) all these volatile substances spread out into the surrounding atmosphere and are subjected to the photochemical reactions with sunlight and form various compounds [9], which may be the reason behind the strict instructions to perform agnihotra during daytime (sunlight is a major factor) [9,12].

As for the pharmacological properties of certain identified compounds and their implications for health management, the presence of essential oils (i.e., concentrated hydrophobic liquid containing volatile aromatic compounds from plants) was noticed (Table 2), and partial oxidation of various aromatic hydrocarbons certainly produces formaldehyde [13]. Formaldehyde is the most basic form of an antimicrobial aldehyde [14] and is known to be a reactive antimicrobial as it reacts with proteins and peptides in microorganisms and kills them [14]. While agnihotra is being performed, a small amount of formaldehyde, along with water vapor, is always produced [9]. Other higher aldehydes may not be as effective as antimicrobial agents such as formaldehyde.

In addition, when camphor, which is derived from the plant *Cinnamomum camphora* and is not a potent disinfectant, is used as a firing agent in agnihotra yajna, it masks foul smell and helps to clear the breathing systems of people who inhale the fumes emanating from the agnihotra pyramid [12]. Thus, people experience an elevated feeling [12]. Moreover, aliphatic acids volatilized as a result of slow combustion enhance the germicidal action of smoke [15,16]. For instance, lauric acid is active against *Propionibacterium acnes*, an organism causing acne inflammation [17]. Furthermore, the volatilization of various fatty acid esters (Table 2), such as caprylic acid ethyl ester, decanoic acid ethyl ester, behenic acid ethyl ester, and lauric acid ethyl ester, may release organic acids into the smoke, thus enhancing the beneficial effects of the agnihotra smoke.

Other compounds identified in the flumes include lirioresinol beta-dimethyl ether, which was recently reported to have an inhibitory effect against breast cancer-mediated bone destruction by blocking the vicious cycle between cancer cells, osteoblasts, and osteoclasts [18], and elemene (β-elemene), which was reported to have antilung cancer activity and was found to reduce the side effects of chemotherapy [19]. In addition, the 2,4-bis (tert-butyl)-phenol identified in the present study has antioxidant [20] and anti-inflammatory effects [21] and has effective action against an agriculturally important fungus, *Fusarium oxysporum*, in inhibiting spore germination and hyphal growth [22]. This compound possesses unusual pharmacological actions [21]. The other compounds in Table 2 possess antimicrobial/germicidal actions of varying intensities.

In addition to the ingredients tested, cow ghee is another important traditional ingredient that is poured into the fire. The fumes that are liberated during the combustion of ghee help to protect the respiratory system and facilitate the removal of blood clots and bacterial infections in nasal passages, lungs, and veins [12]. Hence, daily exposure to this medicinal smoke should certainly have a favorable influence on the health of the mind and the body of the person inhaling the fume. In addition, the potent antimicrobial action of all the above identified compounds purifies the air in the place where agnihotra yajna is performed. Thus, the various health benefits that result from performing agnihotra yajna can be attributed to two sources of energy: medicinal smoke and PCE/Chi/Prana.

4. Discussion

In view of the fact that the human body is a form of energy, the discussion section is divided into four subsections. The first three sub-sections detail the concept of PCE/Chi/Prana, its relationship with the chakra system, and its effect on the entropy of the human body system. The last subsection discusses the two major aspects of agnihotra yajna, medicinal smoke and PCE/Chi/Prana.

4.1. Concept of PCE/Chi/Prana in health

According to Gabriel Cousens' [1] classic text "Spiritual Nutrition", nutrients represent different density levels of energy, and sunlight, which can be absorbed by the eyes and skin, is the least dense form of cosmic energy [1]. The "10-percent rule" in ecology [23—25] supports this point of view. According to this rule, when sunlight energy, the ultimate source of energy (100%) in nature, is absorbed by producers (autotrophs—first trophic level), only 10% of

energy is gained by them (90% is lost), and when these autotrophs are consumed by primary consumers, only 10% is gained by them [23—25]. Thus, as energy moves up the food chain, 90% of the energy is lost at each trophic level [23—25]. Thus, the food that we eat contains a minute fraction of the solar energy absorbed at the first trophic level. This information is of immense value because the human body can be considered to be a mass of energy vibrating at different frequencies [26]. Because our body is a form of energy, the food that we eat, the medicines that we take, and the water that we drink must be able to maintain a constant and continual energy flow within the human body and between it and its surroundings.

Though sunlight is the ultimate source of energy for human beings, PCE [1], which is life giving, exists. In the acupuncture system, it is known as Chi, and in the Indian Vedic system, it is termed as Prana. PCE/Chi/Prana was reported to be the unprecipitated form of cosmic energy and the primary, indispensable nutrient needed by us [1]. Solar energy can enter our bodies via the skin and eyes, whereas PCE/Chi/Prana cannot [1]. In fact, PCE/Chi/Prana was reported to enter the human body mainly through the seventh major energy center located at the top of the head (the crown, or Sahasrara, chakra) [1] and through breathing [27]. In this context, PCE/Chi/Prana must travel downward through all the remaining chakras to maintain a continual and constant energy flow. From chakras, PCE/Chi/Prana flows through meridians (acupuncture system) or nadis (Indian system). To exemplify further, chakras, meridians/nadis, and PCE/Chi/ Prana are analogous to electrical substations, power lines, and electricity, respectively. The intake of a high quantum of PCE/Chi/Prana is a prerequisite for removing the energy blocks in meridian lines/nadis and acupuncture points [27]. Any imbalance in the alignment of the chakra system causes a resistance to the flow of PCE/Chi/Prana because such energy imbalances deprive the meridian lines/nadis and acupuncture points of energy. Therefore, though all of us receive PCE/Chi/Prana, the free downward flow of PCE determines the health of an individual as this flow is essential for supplying PCE/Chi/Prana to associated energy channels (meridians/nadis). Because nutrients represent different levels of precipitation of energy, for humans, the free flow of the unprecipitated form of cosmic energy, i.e., PCE/Chi/Prana, which is otherwise termed as the "primary nutrient" [1], is vital for healthy living.

As living beings, each of us needs to live in an environment that contains a high quantum of PCE/Chi/Prana so that the body can absorb it, thereby "balancing and aligning" the major energy centers in our bodies. However, the quantum of PCE/Chi/Prana varies from one geographical location to another [27]. For instance, in geopathic stress zones [28], the quantum of PCE/Chi/Prana would be significantly lesser than that in other unaffected areas. The geopathic stress zones are characterised by the continuous emission of energies (low-frequency electromagnetic waves) from the earth, which causes poor health [28]. This fact demands the development of appropriate strategies to increase the quantum of PCE/Chi/Prana in geographical locations where its level is very low, particularly, geopathic stress zones and highly polluted areas.

4.2. PCE/Chi/Prana in the field of human energy and health

Chakras are considered to be vital energy centers that play a pivotal role in balancing human health [29]. Chakras are reported to be centers of highly concentrated energy along the spinal cord and to be associated with the seven major endocrine glands in the body [30]. The spin of these chakras influences the functioning of various organs in the human body greatly, and generally, a clockwise spin is ascribed to balanced and aligned chakras [1]. In Eastern philosophy, seven energy zones/layers (corresponding to the chakras) close to the human body have been described. Similarly, an energy field close to the human body, i.e., a human energy field (aura), having three zones/layers was reported in the last century [31]. Aura or the human energy field was reportedly observed for the first time by Walter Kilner in 1911; when he observed a human body through glass screens stained with dicyanin dye [31,32], he could see a glowing mist of three layers around the human body [32]: a 0.25-inch layer nearest to the skin, a 1-inch-wide layer streaming perpendicularly from the body (more vaporous), and a delicate, exterior luminous layer with a 6-inch width and indefinite contours [31]. The intensities of these layers varied depending on the physical, mental, and emotional states of the person [31,32]. Any distortions in this human energy field caused discomfort and disorders [31]. Careful examination has revealed that the human aura is identical in characteristics to the seven energy layers contributed by the radiation emanating from the seven chakras [1]. Each chakra absorbs a particular color in the visible spectrum (VIBGYOR) [6,33] (Figure 1): red for the root chakra (bottom), orange for the sacral/spleen chakra, yellow for the solar plexus, green for the heart chakra, blue for the throat chakra, indigo for the brow chakra, and violet for the crown chakra (top).

In the visible spectrum, violet (red) has the shortest (longest) wavelength; therefore, it possesses the highest (lowest) frequency with highest (lowest) energy. A reasonable explanation for this phenomenon is that when sunlight hits the human aura, the visible spectrum of sunlight is divided into seven colors that then enter the body through the skin and eyes [1]. Thus, the rays separated are directed to each of the corresponding chakras to assign an energy level in descending order to maintain a constant and continual flow of PCE/Chi/Prana through the chakra system from a higher energy to a lower energy state. Similarly, PCE/Chi/Prana enters through the crown chakra (region of maximum energy) and flows through subsequent chakras to reach the root chakra (region of minimum energy). However, in geopathic stress zones or highly polluted locations, the aforementioned flow may not be optimized because in such regions, the quantum of PCE/Chi/Prana would be very low; thus, diseases may occur. In geopathic stress zones, the poor-health-creating energies emanating from the earth [28] disrupt the "oscillatory equilibrium" [34] of the human body due to the resonance effect, and the amount of PCE/Chi/Prana available in such areas is not sufficient to shift from a state of "oscillatory disequilibrium" to "oscillatory equilibrium". Thus, in such regions, tools/strategies to increase the quantum of PCE/Chi/Prana are needed.

4.3. Effect of PCE/Chi/Prana on entropy and the human body

According to the second law of thermodynamics, the universe always tends toward increasing entropy, which denotes randomness or disorder. The entropy of the human cellular system must be very low in order to realize health, i.e., oscillatory equilibrium [34]. Because cells and cellular components are known to vibrate at certain frequencies, any disruption would lead to potential regulatory issues [35]. In the human body, biological macromolecules, such as DNA, proteins, and carbohydrates, are composed of large numbers of atoms in close proximity in a regular pattern. In such systems, single valence electrons form a common band [36]. The products of DNA expression, i.e., proteins, are reported to be semiconductors that can transfer this band of free electrons from one site to another within the human body [36,37]. This charge transfer is vital for the body to function properly. In this context, if the body's entropy is increased by any means, potential irregularities may occur in the vibrational dynamics of the cells and intracellular structures. This disruption will adversely affect the charge transfer necessary for the flow of biological information.

According to Standard Acupuncture Nomenclature given by the World Health Organization [38], 400 acupuncture points and 20 meridian lines connecting most of those points have been documented [29]. Various scientific investigations have proven that most acupuncture points and meridians are areas of high electrical conductance on the surface of the human body [29,39—43]. Most acupuncture points have also been proven to host a 12-fold higher density of gap junctions (hexagonal protein complexes that facilitate cell-to-cell communication and have electrical conductivity) [29]. This grouping of gap junctions at the acupuncture points supports the aforementioned Szent-Gyorgyi's finding that complex protein structures transfer bands of free electrons from one site to another for effective cell-to-cell communication [36,37]. This communication via gap junctions has also been reported to be vital for morphogenesis [44]. An increase in entropy would certainly cause high levels of fluctuations in the passage of information from cell to cell. Recently, the metastatic cancer phenotype was found to be characterized by an increase in the entropy of the local information flux patterns [45]. Another discovery was that measures of local entropy in integrated protein networks might be useful for identifying targets in cancer metastasis [45].

My proposal is that people who live in geopathic stress zones or highly polluted areas experience an increase in entropy because of an "oscillatory disequilibrium" [34] caused by the resonance effect. A thorough analysis of various yajnas performed during ancient civilizations in India revealed that the ultimate aim of all fire ritual processes was to decrease the entropy of the human body by increasing the intake of PCE/Chi/Prana. This is supported by an interesting finding, based on an electrophotonic imaging technique, that a reduction in entropy is always associated with participation in bhaishajya maha yajna [46] due to an increase in the quantum of PCE/Chi/Prana during the performance of yajna [47]. The intake of adequate quanta of PCE/Chi/Prana always minimizes the entropy.

4.4. Medicinal smoke and PCE/Chi/Prana: two major aspects of agnihotra yajna

Our brain cells communicate with one another by utilizing electric charges. This electrical activity in the brain is generally known as the brainwave pattern. The human brain exhibits different kinds of brain waves: delta waves (0.5—3 HZ), theta waves (3—8 HZ), slow alpha waves (8—12 HZ), fast alpha waves (12—15 HZ), beta waves (15—25 HZ) [48], and gamma waves (38—42 HZ) [49]. These waves represent the ladder of consciousness. In the brain of a spiritually-enlightened person, gamma waves will be abundant; however, if a person has no deep consciousness, the gamma waves will not be present [50]. The gamma waves have the highest frequency (highest energy) among brain waves. My hypothesis is that incessant flow of PCE/Chi/Prana through the chakra system without any blockage generates sufficient wave activity, from alpha to gamma waves, in the brain to maintain good health.

The pyramid used for the agnihotra yajna resembles the temple ponds in India, i.e., "Kalyani". The purpose of constructing a Kalyani in ancient temples was to cleanse the human body and mind prior to darsan in temples in order to allow the person to receive the divine energy coming from the sanctum sanctorum. From this, my belief is that the shape of the pyramid used in agnihotra (section of an inverted pyramid having a flat bottom) and that of the temple pond, Kalyani, allow PCE/Chi/Prana to be attracted and disseminated to the surroundings more effectively. A recent study found that the subtilization of matter into energy occurred during the performance of agnihotra yajna in the form of transformations of specific ingredients from a solid state to either a vapor phase or a colloidal phase, and as a result, electromagnetic waves were generated. These electromagnetic waves, together with the chanting of specific Vedic hymns (unique sonic signals), have potential health benefits [12]. The combustion of offerings in the agnihotra pyramid is thought to increase the PCE/Chi/Prana in the surrounding atmosphere [47], and the intake of this increased quantum of PCE/Chi/Prana by breathing is thought to optimize the alignment of chakras and would certainly establish energy connections between the physical body and the electromagnetic body via the chakra system [28].

The increase in the quantum of PCE/Chi/Prana by employing the agnihotra pyramid occurs only in the presence of the fire element. As for medicinal smoke, the routine practice of agnihotra yajna maintains the threshold values of potential therapeutic compounds in the human body [12], which, in turn, enhances the immunity to a great extent. For instance, the *Cocos nucifera* and the *Sesamum indicum* used in the present study were reported to be potentially useful in scavenging free radicals, thus preventing the pathogenesis of diseases [12,51]. In addition, I postulate that the vibrations generated in the pyramid during the process of agnihotra will be absorbed by the bone structure, which is the single major solid crystalline structure in the body, and will later be amplified and transduced as biological signals necessary for the proper functioning of the human body [1].

Moreover, the increased levels of antioxidants in the fumes reach the brain and then the nerves, thus alleviating

psychological depression [12]. Also, the distinct energy currents emerging from all Vedic fire rituals have been reported to possess curative actions for diseases, such as headaches, migraines, mental dullness, intellectual deficiencies, depression, insomnia, intemperance, epilepsy, schizophrenia, and varieties of manias [12,52]. It is commonly known that the therapeutic value of a yajna is determined by the ingredients used [12]. Therefore, logically, the efficacy of agnihotra yajna can be increased drastically by incorporating suitable natural elements, and such a provision is given in an ancient Vedic text, Jaiminiya Brahmana 1:19 [53].

In light of all the above facts, agnihotra yajna can be considered as a complementary medicine that removes the energy blocks in the meridians/nadis. In conclusion, the ultimate purpose of practicing agnihotra yajna is to realize "LIFE", which means "letting incessant flow of energy" through our body—mind system as any blockage in this flow would cause disharmony and chaos in the system, thus leading to poor health.

Disclosure statement

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Appendix A. Supplementary data

Supplementary data related to this article can be found at http://dx.doi.org/10.1016/j.jams.2016.11.002.

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