

Research article

Satan's Syndrome and the Newly Discovered Pathogenic Organism

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Abstract

This novel study would describe a new disease illness although it is not uncommon but never described, categorized, or paid the attention of physicians or researchers. Satan and Demons "Jinn" are created from ultrasound energy, which is the only conventional wave that produces high heat that may reach 3000 degrees. A technique that allows ultrasound to penetrate bone or metal, using customized structures has been developed. Satan could reveal itself through technological applications whose mechanisms depend on ultrasound and heat. It is evident that Satan's ultrasound may affect the human body through transient pore formation in the cell membrane with increased intracellular Ca²⁺ influx which altered the brain's synaptic properties causing transient memory decrease, cloudiness of consciousness, and cognitive deficits. Satan's syndrome may present with the triad of pain, fatigue and neurologic manifestations, these symptoms should alert physicians to consider the syndrome until proven otherwise. Idiopathic hypercalcemia and fever of unknown origin are additional clue signs. The goal of treatment should focus on ultrasound absorption and depletion, meditations, and control of hypercalcemia. It is advisable to carry out more studies on the effects of ultrasound on people who receive ultrasound to be able to predict and avoid the negative consequences that these inaudible sounds produce on human beings.

Keywords: Ultrasound; Satan; Hypercalcemia; Waves; Calcium; Effects

Introduction

The long-term experienced dealing with diseases and patients together with my persistent acquaintance at the medical texts and journals paid my attention to the notable and vague expression "idiopathic" or unknown. Although the gradual progress in the overall medical diagnostic tools, made the spectrum of idiopathic disorders gradually gets narrow and skinny, but still the expression "idiopathic" is valid and effective. For example, idiopathic seizures, idiopathic hypercalcemia not related to malignancy and fever of unknown origin. The advances in immunology led us to the discovery of tons of unknown pathogenic organisms and viruses that enabled us to develop new vaccines, therapeutic modalities, and viral and non-viral gene delivery vehicles. The bacterial and viral microbiologic era is still catching the interest and focus, leaving no room to search in other mysterious fields, such as, for example demons or Satan. I try in this study to open a new window in the medico-physical research to encourage scientific research for taking over the steps in this hidden ambiguous topic.

Ultrasound is a pressure wave, capable of both thermal and mechanical effects in the medium through which it passes. Tissue

heating arises from the absorption of sound energy due primarily to frictional effects, and the mechanical effects are a consequence of the high positive and negative pressure amplitudes involved. When continuous wave or tone burst exposures are used, the heating of tissue can be exploited. However, when short, high-amplitude pulses at low repetition rates are used, thermal effects can be avoided, and mechanical effects can be called into play. These are the two ends of the mechanistic spectrum, but often, both thermal and mechanical effects are involved. Ultrasound is the only conventional wave that produces high heat in this way [1]. The thermal effect of ultrasound was employed for developing the Russian thermal weapon known as the father of bombs, whose damage results from the shock of ultrasound waves and high temperatures, "3000 degrees" so; it is sometimes called the devil's bomb.

Experimentally, it was found that objects can be held and moved in mid-air using the force from high-intensity ultrasound waves to hold something in place; it is known as "acoustic levitation". This technique also made it possible to create interactive 3D images, such as holograms in mid-air that you can see, feel, and hear [2]. Acoustic meta-atoms serve as the building blocks of metamaterials, with linear properties designed to achieve functions such as beam steering, cloaking, and focusing. They have also been used to shape the characteristics of incident acoustic fields, which led to the manipulation of acoustic radiation force and torque for the development of acoustic tweezers with improved spatial resolution [3]. The ultrasound could lift and tweeze three-dimensional objects up against the effect of gravity and is used as tweezers with improved spatial resolution, meaning that ultrasound has "force of weight" opposite to the force of gravity, in other words, it has weight, but in the negative value [4]. Demons are created by ultrasound, whose weight is measured in negative units, and we give an example for clarification. We said that the temperature is 3 or 4 below zero = "-3&-4", meaning the temperature is negative. For the same reason, the weight of Satan is negative.

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Absorption of ultrasound energy

Data on the absorption of ultrasound in liquid NH₃ and ND₃ as a function of frequency and temperature indicated that the absorption is both frequency and temperature independent for frequencies above 30 MHz at a value two times the classical value [5]. Many natural materials, such as bamboo, sisal, flax, hemp, sheep wool, cork, or coconut fibers, show good sound-absorbing performance [6,7]. The results of study done by Borle et al. [8] proved that sheep wool has a comparable sound absorption performance to mineral wool or recycled polyurethane foam.

Method

This analytic novel study would describe a new disease illness although it is not uncommon but ever yet described, categorized, or paid the attention of the physicians and researchers. This study is conducted for the purpose of disclosing the unknown or idiopathic causes of combination of symptoms and how they manifest. Not only analyzing and understanding the vast range of technological, and molecular human cell contexts that crucially shape global mysteries but also find their clinical solutions. The study will push our learning beyond the boundaries of medical research to develop a kind of multidimensional knowledge that prepares us to solve big problems not only at the human level but also at the material level. The historical religious and literature concepts about Satan would be revised and modeled in the spotlight of the scientific research point of view to be corrected and interpreted.

Results

1. Satan is a hidden creature, so it may be considered in any idiopathic causes of disease illnesses such as idiopathic hypercalcemia, idiopathic pain, fatigue, fits, or seizures.
2. Satan and Jinn are created from ultrasound waves, which are mechanical energy that depends in their passage and speed on the presence of a medium that they collide with to move in it. So, its mechanism of action involved both thermal and mechanical effects.
3. Satan's ultrasound may affect the human body through transient pore formation in the cell membrane with increased intracellular calcium "Ca²⁺" influx which altered the brains synaptic properties causing transient memory decrease, cloudiness of consciousness, and cognitive deficits.
4. Idiopathic hypercalcemia not related to cancer or any other cause, could be explained by the satanic syndrome as an etiologic factor, in the context of the associated heat and ultrasound.
5. Triad of pain, fatigue and neurologic manifestations should alert physicians to consider Satan's syndrome until proven otherwise.

Discussion

There is a scarcity of information regarding several aspects of High Frequency Ultrasound (HFUS). The time continuum for deeper cutaneous injury development, variability of quality of images possibly affecting assessment of images, and lack of data with respect to body site hinders more widespread use of this technology. Future studies should explore the possible changes in scans over time to evaluate the progression of tissue injury regarding pressure and friction [9]. Regulations are being developed on exposure times and maximum doses for workers susceptible to ultrasound. Both public and private

developers should consider possible ultrasound emitters in the vicinity of dwellings for measurement and control. It is advisable to carry out more studies on the effects of ultrasound on people who receive ultrasound to be able to predict and avoid the negative consequences that these inaudible sounds produce on human beings, since we are increasingly exposed to these acoustic waves whose consequences are ignored by most people [10].

Unlike X-rays and gamma radiation, ultrasound is a pressure wave, not an electromagnetic wave. It produces no direct ionization. Ultrasound is a series of pulsed sound waves. Sound is mechanical energy that travels as pressure waves through a medium. That is, the pressure increases and decreases during each ultrasound wave cycle. This pressure wave exerts mechanical forces causing molecules to move back and forth from their original stationary position [11].

Charged particles or electromagnetic waves interact with a substance, lose their energy (speed), and eventually stop. X-rays have high penetrating power and travel several tens to hundreds of meters in the air. When they collide with the human body, they can reach deep into the body or sometimes pass through it. Their energy is imparted to the part they pass through [12,13]. If you have the same energy level, you should have the same penetration capabilities no matter if using an X, or gamma rays. Conversely, sound waves penetrate better at lower frequency, and the higher frequency sound diminishes faster than the lower frequency, meaning that the ultrasound energy is nearly constant, and the variation of its effect is due to variations of frequencies and wavelengths.

Satan and jinn (demons)

They are invisible creatures to us, and this does not mean that they do not exist, as evidenced by the fact that we could not see electricity and gravity, but most of the modern technologies and applications depend on confirming the hypothesis of their existence, and no sane person can deny their existence. According to the properties of ultrasound energy, we can determine that Satan and Jinn are created from the ultrasound waves; this could be concluded from the following observations:

1. The U/S mechanical energy depends in their passage and speed on the presence of a medium that they collide with to move in it, and thus: A) Intense heat is generated because of this collision with the particles of the medium. Ultrasound is the only conventional wave that produces high heat in this way. B) Higher penetration power, as evidenced by the recently discovered a technique developed by researchers from North Carolina State University, they have found a way for ultrasound to penetrate bone or metal, using customized structures [14].

The 19th century physicist James Maxwell proposed a tiny intelligent "demon" that could harvest the thermal fluctuations to restore their usefulness; later work in the 20th century showed that the demon itself would have entropy, which would keep the thermodynamic books balanced [15]. Real-life versions of Maxwell demons occur, but all such "real demons" or molecular demons have their entropy-lowering effects properly balanced by an increase of entropy elsewhere [16].

In 2014, Pekola et al. demonstrated an experimental realization of a Szilard engine [17]. Only a year later and based on an earlier

theoretical proposal [18]. The same group presented the first experimental realization of an autonomous Maxwell's demon, which extracts microscopic information from a system and reduces its entropy by applying feedback. The demon is based on two capacitively coupled single-electron devices, both integrated into the same electronic circuit. It is concluded that both Satan and U/S are associated with higher thermal impact.

- Both Satan and Ultrasound (U/S) have higher ability to penetrate. It was evident that the lowest frequency U/S waves carry higher energy levels than the highest energetic electromagnetic radiation that is the gamma ray. Consequently, U/S waves are the most powerful penetrating energy known relative to gamma radiation. This explained why the sonoporation phenomenon, acoustic levitation, and acoustic tweezers are exclusively ascribed to ultrasound. Moreover, researchers from North Carolina State University have developed a technique that allowed ultrasound to penetrate bone or metal, using customized structures [14].

Gamma radiation is a penetrating form of electromagnetic with frequencies above 30 exahertz (3×10^{19} Hz) [19]. But the low ultrasound frequencies are used to scan deeper structures and organs. Since the frequency of a sound wave determines penetration, different ultrasound frequencies are more suitable to examine different areas of the body that are in the range of "2.5 MHz-15 MHz" [20,21]., Note the difference in frequency required for penetration between the U/S (2.5-15 $\times 10^6$ Hz), and gamma (3×10^{19} Hz). This means that U/S has energy of penetration more than 1013 times the energy of gamma ray penetration.

- Both Satan and U/S have the same mechanism of action on our body cells, as they can cause cellular pore formation. Because Satan could evade our body immune surveillance, so, it couldn't be detected by the lab work tests. The same is true for the U/S, it couldn't be detected by the cellular tracing since all its hazardous health effects are basically related to the U/S induced pore formation (sonoporation). Thus, the pathogenesis of clinical manifestations of sonoporation would be potentially unexplained, so it is considered an idiopathic cause.
- Satan could reveal itself through technological applications whose mechanisms depend on ultrasound and heat. And the unique opportunity to expand its impact is wherever thermal ultrasound is involved. Kafai Ali et al. in their study confirmed that the Demons algorithm is an appropriate algorithm for Ultrasound Elastography (USE) for B-mode images since phase information is not available, as "USE" has been widely used to obtain the mechanical properties of tissues [22]. The findings of Bengtsson et al. [23] shed new light on the role of information in controlling thermodynamic fluctuations in the deep quantum regime, which are strongly influenced by quantum correlations in interacting systems.

Mechanism of action and manifestations of Satan's effects on our body cells

Sonoporation: Sonoporation is a novel technique based on the interaction between microbubbles located in the surrounding of a cell and its membrane. The interaction is obtained by the excitation of

microbubbles with ultrasounds. This leads to reversible cell membrane pore formation. Depending on the intensity of ultrasounds, and different environmental factors, microbubbles can interact in two manners. First, Microbubbles must be very close to a cell membrane. Consequently, microbubbles push and pull on the cell membrane and create micro streaming around causing its disruption. Second, inertial cavitation, where contrary to the previous one, oscillations cause a rapid collapse of microbubbles, which creates shock waves and micro jets for the same purpose. Ca^{2+} ions play a crucial role in the process as well as Endo exocytosis [24].

Sonoporation causes transient pore formation in the cell membrane triggered by ultrasound (U/S) and there is complexity in understanding of biophysical and biochemical sonoporation-induced cellular effects; cell compartments and the internal environment of the cell, and detailed biophysical insight into US-provoked pore formation [25]. Pulsed Focused Ultrasound (p FUS) can open the Blood-Brain Barrier (BBB) and induces a sterile inflammatory response compatible with ischemia or mild traumatic brain injury [26]. Another finding provided direct evidence that noninvasive ultrasound stimulation activates individual neurons by elevating intracellular calcium concentration in multiple brain regions. And the ultrasound-evoked responses are transient and brain region-specific that is "the motor cortex and the hippocampus" [27]. Experimentally raising the level of intracellular pre-synaptic calcium in the brain altered the synaptic properties so that causing decreased memory. Most fascinating of all the results is that the reverse is also true: lowering intracellular calcium rejuvenates their synapses and improved memory [28]. Free intracellular calcium is an important messenger for many signal transduction pathways of neurons. The maintenance of neuronal viability and function requires the maintenance of intracellular calcium homeostasis, which is why many results provided evidence for an association between calcium channel blocker use and a lower risk of developing dementia among elderly hypertensive patients [29]. Most of the calcium is found in the bones as calcium phosphate while a small percentage is found in the cells and extracellular fluids. In the serum, about 45% of calcium is bound to proteins, 45% exists as free or ionized calcium that is the active form, while 10% is bound to anions. Systemic acidosis decreases calcium binding to albumin increasing serum levels while alkalosis causes the opposite effect [30]. Symptoms of increased calcium (hypercalcemia) includes, digestive symptoms, such as nausea, poor appetite, or constipation, increased thirst, or more frequent urination, due to kidney changes. Muscle weakness or twitches, bone pains and brain changes, such as feeling tired or fatigued or confused [31].

At the cellular level, ultrasound has been proposed to act on membranes, receptors, extracellular matrix, and intra-neuronal cytoskeletal microtubules. With known resonances in megahertz, microtubules play prominent roles in synaptic plasticity and have been theoretically proposed as a substrate for consciousness [32]. It is evident that Satan's ultrasound may affect the human body through transient pore formation in the cell membrane with increased intracellular Ca^{2+} influx which altered the brain's synaptic properties causing transient memory decrease, cloudiness of consciousness, and cognitive deficits.

Bacterial effects: It was found that low-frequency ultrasound (70 kHz) of low acoustic intensity (<2 W/cm (2)) increased the growth rate of the cells compared to growth without ultrasound. However, at high intensity levels, bacterial cells were partially removed from the

surface. Ultrasound also enhanced planktonic growth of *S. epidermidis* and other planktonic bacteria. It is hypothesized that ultrasound increases the rate of transport of oxygen and nutrients to the cells and increases the rate of transport of waste products away from the cells, thus enhancing their growth [33]. Many studies have shown that ultrasonic energy can disrupt cell walls and diminish bacterial growth through generation of free radicals due to the decomposition of water inside oscillating bubbles. [34,35]. It was found that exposure of bacterial microfilms to ultrasound can directly affect bacteria and enhance the efficacy of antibiotics or other therapeutics, which had been termed Sono bactericide, thus provided evidence for ultrasound-activated microbubble or droplet treatment of bacteria and biofilm. Mechanisms for ultrasound enhancement of Sono bactericide include acoustic cavitation and radiation force [36]. Thus, the low frequency U/S waves promote bacterial growth, but the high frequency waves diminish bacterial growth.

Hyperthermia: with febrile convulsion and confusion.

Treatment: The plan of treatment of Satan's Syndrome should focus on measures to absorb and deplete ultrasound energy, and measures to correct the complications associated with the disturbed calcium homeostasis.

A. Ultrasound absorption and depletion.

1. Many natural materials, such as bamboo, flax, sheep wool, cork, coconut fibers, and, or Gelatin based lotions and creams applied locally, could absorb and disperse the Pulsed Focused Ultrasound (p FUS).
2. Dense colloidal suspensions can propagate and absorb large mechanical stresses, including impacts and shocks. The wave transport stems from the delicate interplay between the spatial arrangement of the structural units and the solvent mediated [37]. Some examples of a colloidal solution include whipped cream, mayonnaise, milk, gelatin, paper etc.
3. Radio waves can penetrate deeper into bulk structures and enable the control of propagation of ultrasonic waves. The novel acoustic meta-material, macroscale phononic crystal with the radio frequency "318.6 and 422.5 kHz" enables the regulation of sound waves by electromagnetic waves. Compared with light waves, radio waves can penetrate deeper into bulk structures and enable the control of propagation of ultrasonic waves through them [38].

The integrated natural materials sandwich structure was found to provide a superior sound absorption performance compared to the synthetic-materials-based sandwich structure composite due to the contribution of their multi scale structures to sound wave attenuation and energy dissipation. It was concluded that the natural-materials-based sandwich structure has the potential of being used as a sound absorption structure, especially at high frequency [39].

B. Treatment of disturbed calcium dynamics: Measures to control hypercalcemia.

Mild hypercalcemia-(calcium <12 mg/dL (3 mmol/L)) patients should be advised to avoid factors that can aggravate hypercalcemia, including thiazide diuretics therapy, volume depletion, prolonged bed rest or inactivity, calcium and/or vitamin D supplements, and a high-calcium diet.

Moderate hypercalcemia (calcium between 12 mg/dL and 14 mg/

dL (3 mmol/L to 3.5 mmol/L)), an acute rise to these levels may cause changes in sensorium, which requires treatment as described for severe hypercalcemia.

Severe hypercalcemia- Patients with more severe (calcium >14 mg/dL (3.5 mmol/L)) or symptomatic (e.g., lethargy,) hypercalcemia require aggressive therapy. Initial therapy of severe hypercalcemia includes the simultaneous administration of Intravenous (IV) isotonic saline, subcutaneous calcitonin, and a bisphosphonate; initial dose is 4 units/kg, administered SC or IM. And for longer-term control of hypercalcemia in patients with more severe or symptomatic hypercalcemia due to excessive bone resorption, it is suggested the addition of an IV bisphosphonate rather than denosumab). Bisphosphonates have a long track record of safety and efficacy for the treatment of hypercalcemia due to excessive bone resorption from a variety of causes. Refractory hypercalcemia or bisphosphonate contraindications. Denosumab is an option for patients with hypercalcemia that is refractory to zoledronic acid or in whom bisphosphonates are contraindicated due to severe renal impairment or bisphosphonate allergy [40,41].

C. Meditations

Meditation practice induces functional and structural brain modifications, especially in areas involved in self-referential processes, including self-awareness and self-regulation, as well as in areas involved in attention, executive functions, and memory formations. Structural and functional modifications in this network may be the biological substrate of the pervasive effect of meditation practice in everyday life. These findings, taken together with previous ones, are leading to new applications of meditation practice in clinical populations and in disease prevention [42].

D. Supportive treatment

Application of cold Nitrogen based lotions or creams to absorb and attenuate the ultrasound induced effects- and drinking of cold water for hyperthermia and change the space and place of the patient to be away from the source of satanic p FUS, as evidenced by the following observations.

1. The absorption of ultrasound in liquid NH₃ was demonstrated [5].
2. Agar-based gel having U/S attenuation coefficient values like those of human and animal tissues can be developed with the proper selection of percentage of agar, silicon dioxide, and evaporated milk [43].
3. Generally, the tissues with the higher protein content will absorb ultrasound more efficiently [44].

Conclusion

According to the properties of ultrasound energy, we conclude that the Jinn and Satan are created from ultrasound waves. Both thermal and mechanical effects of U/S are involved. Ultrasound is the only conventional wave that produces high heat may reach 3000 degrees. A technique that allows ultrasound to penetrate bone or metal, using customized structures has been developed. Satan could reveal itself through technological applications whose mechanisms depend on ultrasound and heat. It is evident that Satan's ultrasound may affect the human body through transient pore formation in the cell membrane with increased intracellular Ca²⁺ influx which altered the brain's synaptic properties causing transient memory decrease, cloudiness

of consciousness, and cognitive deficits. Triad of pain, fatigue and neurologic manifestations should alert physicians to consider Satan's syndrome until proven otherwise. Idiopathic hypercalcemia and fever of unknown origin are additional clue signs.

Compliance with Ethical Standards

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Disclosure of conflict of interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. The authors declare no conflict of interest.

Author's contributions

R-A and A-A have drafted the work and substantially revised it.

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