



## The Concept of the *Haar-re-Gharizi* and *Hararate Gharizi*: The Innate Hot [Substance] and Heat

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### Abstract

*Haar-e Gharizi*, or the innate natural hot [substance] is the natural fluidic substance that produces the natural heat, *Hararat-e-Garizi*. These two concepts are sometimes used interchangeably but the fact is that Haar may be considered as the action potential of the body whilst the heat being one of the byproducts of *Haar's* actions. The *Haar*, is distributed throughout the body by its source, the heart, and ventilated by the heartbeat and breath. Two movements have been described for the *Haar*: the normal expansion and distribution of *Haar* to the periphery of the body, and the constriction and condensation of *Haar* in the core of the body. These currents may both be physiologic or pathologic depending on the duration, strength and extent of each movement. Considering the importance of the balance between these movements, and the dependence of *Haar* on heat to stay in optimal state, it is proposed that external heat therapy can be used to treat various diseases by strengthening the pump of the *Haar* (the heart), and opening its pathway (the vessels). Named SINA, this modified sauna therapy is highly individualized, corresponding to the patient's temperament, and at the same time monitored and managed based on emergence of warning symptoms. Thus, SINA therapy opens a whole new perspective in treatment of a wide range of diseases by means of the body's own powerful potential, the *Haar*.

### Keywords:

*Haar*, *Hararat-e Gharizi*, Traditional Persian Medicine (TPM), Avicenna, sauna, SINA therapy

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### Introduction

*Haar-re-Gharizi* meaning the innate natural hot [substance] is the natural fluidic substance which carries and produces the natural heat,

named *Hararat-e-Gharizi*. In some manuscripts it has been specified as the *Rotoobat-e-Gharizi*, meaning the innate natural fluid or damp [1]. Throughout this article we would shortly name it

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as “*The Haar*”. The scholars of Traditional Persian Medicine (TPM) have resembled the *Haar* to the fuel of a lantern burning to produce heat. However, many articles have negligently used the hot and the heat interchangeably because of their close relationship [2]. Considering the belief that the *Haar* is the innate nature’s device to perform all actions [3], one may conclude that heat is not all of the released potential of the *Haar*, and *Haar* may be defined as the sum total of all the potential of actions in the body, which produce heat as a byproduct and not as the main goal. Only as an example, we may resemble the *Haar* to the fluid molecules of Adenosine triphosphate which has the potential to run many actions and also to produce heat when degraded into Adenosine diphosphate in some biochemical reactions [4]. Thus, ATPs, natural killer cells and proteolytic enzymes may be some examples of the *Haar*.

The innate natural heat originates from the *Haar*, which itself is the sum of the “natural spirit” and the “vital spirit” distributed subsequently from the liver and the heart [5].

Other functions of the *Haar* are as follows:

- Reinforces the digestion and completes the process of *Nozj* which is the rheological preparation of matter for absorption or excretion [6].

- Affects body fluids, excreting them by sweat or diminishes them, also keeps the body fluids safe from spoilage and infection [7].

- Reduces the excess of damp which loosens the tissues [8].

- Acts on food and drug to release their potential so they could exert their effects on the body [9].

- Powerfully opposes the external heat and cold to prevent their impact on homeostasis [10].

- Helps the body repel the danger of toxins and opposite materials by digesting them or managing their side effects [11]. Therefore, it has been forbidden for a person bitten by a poisonous animal to fall asleep in order to keep the *Haar* reaching to the periphery [12]. This mechanism will be further discussed in the article.

- Exists in fruits, facilitating the ripening process with the help of the external heat from the sun [13].

### **The Heart: The Source and Distributer of *Haar-re-Gharizi***

The heart is said to be the first organ formed in the fetus in order to be the source of the *Haar*. Therefore, the heart is the hottest organ in the body from where other organs receive their heat and energy [14]. It is interesting that modern embryological findings show a cephalocaudal development process of the embryo and that the angiogenic cell clusters and the cardiogenic area are from the first and the most cephalic part of the germ disc to be formed in the gastrulation and embryonic period in the early presomite embryo. This means that the heart’s tissue is built above and before the brain and other organs and then folded down to set in the thoracic cavity [15].

There is a strong correlation between the *Haar* and the pulse. The final cause [16] of pulse formation, heartbeat, and respiration are mentioned to be ventilation of the *Haar* [17] and on the other hand, a strong and huge pulse indicates a strong *Haar*.

The more distant the materials in the body are from the source and spring of the *Haar*, the more they cool down and condense, thus depositing and accumulating as incompletely digested material in the interstitial spaces and maybe within the cells [18], predisposing to the *Bad-anbaasht syndrome* previously discussed in brief in the past journal [6]. This may be one of the causes that Prophet Mohammad p.b.u.h. preferred to consume the upper limbs of the animal flesh instead of the lower limbs [19, 20], because they are much closer to the heart and less accumulated with debris and waste matter [21].

### **The Quality and Quantity of the *Haar***

The quality or temperament of the *Haar* is moderate warmness and wetness, which is most suitable for growth and life and most correlated to the temperament of the sanguine humor, the main composition of whole blood. The *Haar* reaches the organs and dedicates to them their

share of warmth and function. Realizing the importance of its optimal temperament in keeping the body's optimum temperament, the *Haar* has to be cooled and purified by proper ventilation when heated up by the exhaust smokes and vapors of the tissues and has to be heated up when cooled too much in cases of excessive stasis, usage or dispersion. The *Haar* is in its maximum amount at the growth period and reduces during life time [22].

### The Movements of the *Haar*

The *Haar* has two major movements, basically the result of the circadian rhythms of sleep and wakefulness, but exaggerated by other factors. Each movement dedicates its own physiological benefits to the body:

1. The normal expansion and distribution of *Haar* to the periphery of the body:

This is caused basically by wakefulness and exaggerated by mild to moderate massage [23], exercise and [24] external/internal temperature elevations [25]. The major physiological benefit of this movement is suitable propagation and provision of *Haar* throughout the body, especially the periphery. This results in proper peripheral perfusion, and subsequently good coloration of the skin, cleansing of the organs and tissues from wastes and unsuitable non-digested products, an increase in peripheral surveillance and action of the immune system, peripheral tissue growth management and etc.

2. The constriction and condensation of *Haar* in the core of the body.

This movement is accompanied by the shortening and weakening of the radial pulse [26], and usually caused by sleep [27], but may also be a result of other triggers like mild internal/external cold exposures [28]. Accumulation of *Haar* in the inner layers of the body results in its condensation, amplification and reinforcement. The major physiological benefit of this movement is concentration of *Haar* in the internal organs especially the ones

related to digestion, enforcing their acts of mechanical and chemical digestion. Consequently, these actions lead to reduction of waste products, and increase in well digested absorbable materials and highly efficient production of fine blood, sanguine and spirit from phlegm and raw materials and etc. [29].

### The Abnormalities and Pathologies of the *Haar*

Although the two above mentioned movements are physiologic and have benefits, any inappropriate change in their duration, strength, or extent may enter the body into the pathologic territory. The over-activity and excessive movement of *Haar* in either direction may cause one of the below mentioned syndromes, and even faint or death if severe and out of control [30].

#### ● The Over-distribution and scattering of the *Haar*

-Despite the reinforcing effect of mild external heat on the internal natural heat – the *Haar* – [25, 31] excess in all sorts of warmers like body movements, exercise, traveling, keeping awake, sexual activity, anger, summer heat, hot air or climate, sauna and etc. may cause the *Haar* to scatter outwards and lead to weakness and indigestion [32].

-The concurrence of a weak heart with excessive hunger, vigorous labor or chronic disease may also diminish the *Haar* [33].

-The evacuation of useful materials from the body also weakens the *Haar* [34].

#### ● The stagnation of the *Haar* in the core of the body

-Excess usage of all sorts of coolers like cold air or water, causes suffocation of the *Haar* in the center of the body [35]. Chronic constriction and closure of the body pores – *masaam* – may also lead to the same situation [36].

The primary stages of obstruction of the *Haar* current may simultaneously cause two opposite syndromes, one titled by the authors of this

article as the Hot-inside Syndrome, and the other as the Cold-outside Syndrome.

Symptoms of the Hot-inside Syndrome include palpitation, headaches, allergies, intestinal sores and gastroesophageal reflux. The Cold-outside Syndrome is accompanied by sign and symptoms such as cataract [37], impotency [38], infertility, shiver and chills [39], photophobia and phonophobia, blindness and deafness [40]. The defects are more obvious in the distal of extremities especially the feet because of their distance from the source of *Haar* – the heart, leading to their coldness, dryness, atrophic signs and sometimes swelling and edema [41].

Deprivation of the *Haar* gives unnatural heat the chance to invade the damp and cause infection and spoilage of the tissues ending in gangrene [42].

Once in the end stages of *Haar* obstruction, the Cold-outside syndrome will be accompanied by a Cold-inside syndrome due to extreme decrease of *Haar* even in the core of the body. Some important mentionable problems of this recent condition include hepatic diseases, anemia [43], dyspepsia [44], impotency, excessive shyness, fear and phobia [45], decrease in libido, kidney and gallstones [46], increase in phlegm formation [47], cold dystemperament and weakness of the heart and body, cardiac atrophy, weak and slow pulses [48], and early senile changes [49].

Excessive moisterization in baths and wet saunas obstruct the effect of the *Haar* [50]. Bad cold humors including visceral and non-visceral fats invading the organs may also cause the same. One mechanism for the above mentioned problem is the constrictive pressure of these tissue accumulations against the vascular hydrostatic pressure of blood in the vessels. *Fasd* or venesection in such cases may worsen the problem and obstruct the distribution of the *Haar* [51].

The coldness of an organ diminishes its *Haar* [52]. The coldness of the heart solidifies the

*Haar*, leading to its relative stasis in the core body. Drinking cold water after a hot bath, sauna, exercise, sexual activity and after a period of fasting like before breakfast also reduces the *Haar* [53]. Sustained consumption of sour foods also weakens the *Haar* [54].

### **Sauna's Benefits on Distribution of the *Haar***

Considering the benefits of good distribution of the *Haar*, one may reach the effect of external thermal therapy on the outward distribution and expansion of the *Haar*. This is also proven by today's physiological findings where the elevation of skin temperature leads to alteration in nerve impulses from the hypothalamus to the vasculature and the sweat glands of the skin, so that there is vasodilation of the vessels and finally increased sweat secretion [55]. Vasodilation not only eases peripheral blood circulation, which leads to a better distribution of the *Haar* but also reduces peripheral vascular resistance and therefore results in a compensatory increase in the cardiac output - governed by the brain - by increasing the inotrophy and the chronotrophy of the heart. This culminates in future hypertrophy and strengthening of the heart if carried out in a routine daily basis. In other words, a treatment like sauna may be beneficial in strengthening the heart – the pump of *Haar* – and also opening of peripheral vessels – the pathway of *Haar* - in favor of better distribution of the *Haar* [56].

### **Sauna's Detriments to the *Haar***

Individual differences in temperament, which manifest as different body reactions to specific levels of moisture and temperature [57], have been carefully considered by TPM scholars. Unfortunately, to the best of our knowledge, the effect of sauna in different temperaments has not yet been studied so far, despite its extensive use in health and disease [58, 59, 60]. As mentioned above, excessive external heat may evaporate and diminish useful damp and fluids of the body, consequently decreasing the *Haar*'s material and also its diffusion to outer layers of the body. This

results in weakness of the core organs [61] including the digestive system, fall of the vital and natural forces [45], faint and even death [62]. It has also been quoted that sudden heat may dry out the *Haar* and weaken the heart [63]. Bathing with excessive hot water has even been declared to cool down the body due to the *Haar's* evacuation [64] and also to loosen the body structures [65]. *Avicenna*, the most famous TPM scholar has postulated in his book, the *Canon of Medicine*, that hot sauna baths may cool and dry the body due to excessive decline of the *Haar* [50] and that the treatment of the dry and cold dystemperament should be gradual warming up so that the *Haar* is increased, but not over heated [66]. He also believes that although hot baths have many benefits, they may weaken and loosen the tissues causing the penetration of waste products inside the tissues especially the connective tissues and nerves, and also reduce appetite and libido by diminishing the *Haar* [67]. All this means that sauna may act differently in various temperaments, and may also lead to side effects or even weakness instead of good results in some individuals [59, 60].

### Design of a New Method of Heating the Body Based on Avicenna's Ideology: The SINA Therapy

Putting all that together, the authors of this article have reached a wide variety of individualized saunas in order to be sure of strengthening the *Haar* and its pump and not weakening them. These sauna protocols have tight controlled timing, temperature, and humidity features and may easily be adjusted by the individual with emergence of alerting signs and symptoms - derived from TPM literature and given to the patient - to reach the point of maximum benefit and no harm. These packs of protocols are named S.I.N.A. therapy in correlation with sauna therapy and in remembrance of Avicenna (The son of Sina). SINA is also the abbreviation of *Surface Induced Nozj* or *Safe Inclusive Nozj*: *surface induced Nozj*, because it is a *Nozj* process induced mostly by triggering skin thermal receptors; and *Safe Inclusive Nozj* because it may include the *nozj* of all material at all levels of the

body due to the power and access of the *Haar* to make *Nozj* on these material, and moreover, it is safe, if the alert signs and symptoms are watched for. So far, many complicated clinical cases have been treated and many experimental animal studies have proved successful in the treatment of asthma, diabetes and fatty liver disease, looking forward to being published and shared with the scientific society.

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