

STUDY OF 'SENSE OF HEAT' AND ITS RELATIONSHIP TO SKIN ALLERGIES AND OTHER DERMATOSES

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Summary

400 skin patients complaining of 'Sense of Heat' (in short S O H) were thoroughly studied regarding their constitution, temperament, disease, degree of S O H, eating habits, etc.

80 consecutive patients attending the Skin OPD were taken up to see the incidence of S O H in the Skin patients.

Two series of 400 and 90 patients were studied for their dietary habits. Non Sattvic food habits and those with worrying, brooding nature are more prone to S O H and skin allergies.

Sattvic food usually consists of simple, wholesome, fresh non pungent foods like milk, butter, fresh fruits, barley, bananas, almonds and vegetables like **torari**, **parwar**, **kerela**, and green **dal**. Pathogenesis, etiology and therapeutic approach are discussed.

In dermatological practice 'Heat in the blood' or 'Sense of Heat' (in short S O H) is not an uncommon complaint. It is seen as the first sign or symptom of drug eruption, urticaria or allergy. Lay patients even called V.D. as '*Heat-Garmi*'. Heat concept of skin disease is so varied that one is compelled to look deep into the matter.

Roughly speaking, the reference is made to eruptive conditions like urticaria, toxo-allergic rashes, drug eruptions, erythrodermas, genital eruptions, acne, venereal diseases, virility, temperament, environments and certain eatables.

Historical Considerations

In ancient India "Tridosha theory of Ayurveda" namely *Vata*, *Pitta* and

Kapha became quite popular while in the West, Hippocrates¹ (460-377 B.C.) and Galen² (138-200 A D) postulated humoral theory. Galen classified the human temperament as sanguine, choleric, phlegmatic and melancholic. In orientation to the concept of origin of heat, Mazhar H. Shah³ maintains that temperament is the pattern of activity and reactivity of the body as a whole or of its part expressed in terms of elementary qualities namely heat, cold, dryness and moisture. In the 12th century, Albucasis and Miamonides stressed the importance of the man in relation to his own disease.

Hess and Eppinger⁵ limited their concept to only two types - The parasympathetic and sympathetic.

However, Sheldon's⁶ work on constitution is probably most exciting. His morphological classification of endomorphy, mesomorphy and ectomorphy

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is based on a detailed photometric study of the body. He further recognises three types of temperament namely viscerotonia, somatonia and cerebrotonia.

Dwarka Nath⁷ while interpreting the qualities or *gunas* of drugs and eatables describes two types of *Veeryas* in the sense of two aspects of transformation of energy viz catabolic (*Ushna Veerya*) and anabolic (*Sheeta Veerya*).

Thus we see that the 'heat' concept is with diseases since their recognition. With the advances in medicine, the humoral theory has become history in modern medicine but not so in ancient medicine.

The original interpretation of 'heat' seems to be contaminated by 'Syphilis' and other venereal diseases later. In the Muslim and post-war periods, the skin conditions were considered as syphilis (*Astishaquis* in Arabic means heat). Additional support to this was lent by the therapeutic efficacy of arsenic and other heavy metals in the treatment of venereal as well as several non-venereal rashes. Thus it seems probable that the name 'heat' in vernacular became common for all the skin rashes. The advantage is being taken by the quacks who by giving this label impress the patient in clinching the exact diagnosis.

Aim of the study is to find out what exactly is meant by SOH and what are the causes. Further an attempt has been made to establish the relationship of SOH (supported by objective testing and thermometry) with different dermatoses, constitutional diathesis etc.

Material and Methods

The patients were thoroughly examined. History included study of their food, temperament, addiction to drugs, habits, physique, clothing, subjective symptoms like giddiness or drowsiness due to heat and sun light. Body temperature was taken with a skin thermometer from different places like hands, feet, axillae, ears, forehead, mouth and groins.

Blood pressure, weight and height were recorded. Conditions studied included urticaria, eczemas, drug rashes, endogenous dermatitis and miscellaneous dermatoses. Endocrine disorders esp. thyrotoxicosis were excluded by clinical examination.

Patients were asked to immerse their hands in water (98.4°F temperature) and describe whether they found it normal, cold, warm or hot. After this, hot water was added to it, little by little recording temperature all the time. Patients were asked what temperature of water they described as normal.

		±	+	++	+++		
	97°	98°	99°	100°	101°	102°	103°F

Grading

I Grade ±

- (i) Warm feeling.
- (ii) Warm hands and feet.
- (iii) 99°F described as normal.

II Grade +

- (i) Feeling of heat.
- (ii) Uncomfortable in the sun and hot environments. It caused pricking sensation.
- (iii) 99°F - 100°F described as normal.

- III Grade ++ (i) Greater feeling of heat.
 (ii) Burning hands and feet.
 (iii) Keep feet and hands outside the covering while sleeping.
 (iv) Burning sensation in the sun.
 (v) 101° - 103°F described as normal.

- IV Grade +++ (i) Feeling of burning hot.
 (ii) Hot hands and feet.
 (iii) Cannot stand sun - giddiness and drowsiness.
 (iv) Above 103°F described as normal.

Study consists of three parts :-

- (i) First 80 consecutive cases of different dermatoses were picked up from the out-patient department of the Skin Institute to see how many of these patients complained of 'Sense of Heat' (SOH).
 (ii) Secondly 400 cases of S O H were investigated in detail to establish the relevance, rationable and etiology.
 (iii) Finally 90 cases were studied for their dietetic habits in relationship with S O H.

Observations

Tables I, IIA, IIB, IIC, IID, IIE, IIF and III

TABLE I

Study of 80 consecutive skin patients for complaint of S O H

Disease	-	±	+	++	+++	Nos
Eczema	2	8	15	4	1	30
Urticaria	1	7	10	7	1	26
Drug Rash	-	8	6	8	2	24
Total						80

TABLE II A

Grade of S O H in 400 selected patients complaining of S O H with disease-wise Distribution.

	±	+	++	+++	Nos
Eczema	22	40	72	6	141
Urticaria	11	27	39	1	78
Drug Rash	2	27	43	1	73
Psoriasis	15	4	—	—	19
Miscellaneous	70	19	—	—	89
Total					400

TABLE II B

Regional Distribution of S O H

Sites	No. of cases
All over the body	248
Hands	51
Feet	51
Ears, Scalp & Sites of lesions	50
Total	400

TABLE II C

Constitution-wise distribution

Obese	112
Average	160
Thin	128
Total	400

TABLE II D

Sex distribution

Males	219
Females	181
Total	400

TABLE II E
Distribution according to Temperament

Temperament	No. of cases
Worrying Temperament	185
Brooding Nature	90
Excitable & Angry	125
Total	400

TABLE II F
Eating and Drinking Habits in 400 persons complaining of S O H

Vegetarian	216
Non-Vegetarian	184
Total	400
Tea excessively (more than 4 cups a day)	271
Spices ++	213
Sour things like lime pickles, masala, condiments, garlic, onion, ginger, sonth	171
Alcohol ++	58
Sattvic habits	19

TABLE III

Dietary Habits of 90 persons picked at random

Complaint of S O H — 62			No complaint of S O H — 28		
	No.	Percentage		No.	Percentage
Nearly Sattvik	14	22.5	Nearly Sattvik	22	78.6
Non Sattvik	48	77.5	Non Sattvik	6	21.4
Tea Excess	58	93.5	Tea Excess	19	68
Alcohol	22	35.4	Alcohol	4	14.2

Discussion

Our study certainly establishes that the skin patients do complain of definite S O H in 66.75 and ± feeling in about 20% of cases in a non selected consecutive series of 80 skin patients picked up in the out-patients. Further almost every case of urticaria, drug rash and disseminated eczema was preceded and/or accompanied by S O H. This was more so in cholinergic and physical urticarias. Most of the patients had worrying or brooding or excitable nature. They lose temper easily.

Table IIF and III are very informative indeed. These bring out very clearly that excessive use of tea, alcohol, spices chillies and non-vegetarian food is associated with S O H and proneness to skin allergies. People with Sattvic habits have (simple life, vegetarian non pungent food without spices, condiments, tea, coffee and alcohol) have less of S O H; 21.4 percentage compared with more than 77 percentage in people with non-sattvic habits. Hence change of food habits may help to curb S O H and prevent/cure skin allergies.

Now the question is whether the 'Sense of Heat' can have a scientific bearing in relation to skin diseases. As we know to-day that many of skin rashes develop due to changes in the blood vessels mainly vaso-dilatation and increased permeability causing physiological sensation of heat in the

skin. Secondly foods have specific dynamic and catabolic/anabolic qualities.

Sushruta Samhita⁸ (chapter on skin disease) discusses the "conduct of diet and regimen of treatment" and suggests that a person affected with any kind of skin disease should refrain from taking meat, lard, milk, curd, oil, incompatible unwholesome and indigestible foods, hot burning and pungent foods, or food causing burning sensation and some kind of internal secretion.

According to Bhisagaratna⁹, an over-indulgence in such articles of food as are heat making in their potency or a surfeit of edibles largely composed of sharp, acid or alkaline substances, as well as large consumption of pot herbs etc, or an exposure to heat tends to vitiate the blood of the human organism and which on account of such contamination tends to speedily obstruct the passage of fleet coursing *Vayu*. The agitated *Vayu* is thus responsible for *Vata*, *Pitta* and *Kapha* and thus corroborates ancient theory of humor, namely 'Tridosha theory' of Ayurveda.

In consideration of the above findings, scientific hypothesis is put forward that SOH is an important symptom of allergic and other skin diseases. This is more so in drug allergies and physical urticarias. Almost all the patients with eruption and urticaria had the initial complaint of SOH. Further persons with SOH are more prone to skin diseases. May be change in living and eating habits reduces this predisposition.

An important flaw in the SOH hypothesis is that it is a subjective symptom and difficult to decipher by scientific methods. Skin thermometer was not of much help. Often the patients have asked for a drug which would reduce this SOH. From the therapeutic angle, research on drugs is indicated in this direction.

This is a preliminary study. Much more work needs to be done to explain this hypothesis scientifically and to find a suitable cure.

References

1. Hippocrates: Quoted by Udupa KN et al: Human constitution in clinical medicine, Historical consideration, Advances in Research in Indian Medicine, Banaras Hindu University, Varanasi, India, 1970 - P. 307.
2. Galen: Quoted by Udupa KN et al: Human constitution in clinical medicine, Historical consideration, Advances in Research in Indian Medicine, Banaras Hindu University, Varanasi, India, 1970 - P. 307.
3. Shah MH: The general principles of Avicenna's Cannon of Medicine Ed. by Shah MH. Naveed Clinical, Karachi, Pakistan 1966.
4. Albucasis and Miamonides: Quoted by Udupa KN, et al: Human constitution in clinical medicine, Historical consideration, Advances in Research in Indian Medicine, Banaras Hindu University, Varanasi, India - 1970 P. 308.
5. Hess and Eppinger: Quoted by Udupa KN et al: Human constitution in Clinical medicine, Historical consideration, Advances in Research in Indian Medicine, Banaras Hindu University, Varanasi, India 1970 - P. 308.
6. Sheldon WH: The varieties of human temperament Harper Bros NY, London, 1942.
7. Dwarkanath C: The fundamental principles of Ayurveda, III pt. I ed., Hindustan Press, Mysore, 1953.
8. Bhisagaratna KL: Conduct of diet and regimen. Sushruta Samhita II, Chowkhamba Sanskrit Series office: Varanasi, 1963, P. 346.
9. Bhisagaratna KL: The Nida'nam of Va'ta Raktam, Sushruta Samhita, II, Chowkhamba Sanskrit Series officer, Varanasi, 1963, P. 8.