ISSN: 2322 - 0902 (P)
ISSN: 2322 - 0910 (O)

International Journal of Ayurveda and Pharma Research

Review Article

AN EXPOSITORY APPRAISAL ON *SWEDA* (PERSPIRATION) AND ITS PRECLUSION FROM *ADHARANEEYA VEGA* (NATURAL URGES)

Aneesh T[1]*, Archana Madhavi[2]

*[1]Assistant Professor, Department of Shareera Rachana, Motherhood Ayurveda medical College, Uttarakhand.

[2]Assistant Professor, Department of Kayachikitsa, Vaidyaratnam P.S.Varier Ayurveda College, Kottakkal, India.

ABSTRACT

Ayurveda upholds the prevention of disease by observing strict daily and seasonal regimen and regulating natural urges. The concept of natural urges is an inimitable notion of Ayurveda. Though feces and urine which are *Mala* (excretory end products), are included in these needs, sweat, the third one is excluded. The major reasons for these may be that *Sweda* has its root all over the body in the form of adipose tissue and sweat glands and there was no control or environmental restriction of perspiration elicited in ancient days. Moreover, Perspiration is controlled by the Autonomic nervous system which steers the involuntary actions of the body. In current days of sedentary lifestyle, severe climatic variations and use of external thermoregulatory methods like air-condition have changed the scenario. This can inhibit or alter perspiration resulting in several skin disorders and metabolic aberrations. These conditions demand a deliberation on reconsidering the importance of *Sweda* and its impact on health in a novel perspective. Though regulation voluntarily is not mandated in Ayurveda classics in its specific context, present day claim a stress free and active life style to "perspire properly". This paper explores importance of *Sweda* (sweat/ perspiration) and possible reason for excluding it from natural urges.

KEYWORDS: *Adharaneeya vega,* Ayurveda, Lifestyle, Perspiration, *Sweda*.

INTRODUCTION

Human body consists of numerous factors regulating its structure and function. These elements should work in harmony for the wellbeing of an individual. Ayurveda focus on retaining and regaining health by balancing *Dosha*, *Agni*, *Dhathu*, its *Srothus* and *Mala* i.e., functional elements, digestive fire, tissues, their internal channels and excretory end products[1]. The unique concept of agglomeration of body, mind and soul paves a strong basement for treating disorders at the grass root level. The first manifestation of disease is imbalance in any or many of these elements[2]. Along with these, natural urges of mind and body and its symmetry is vital for life. Lifestyle in current era is so aberrated that, the routine of any individual does not fit to follow any of these modifications and thus end up in a tainted condition.

Lifestyle modification is a prime intervention in Ayurveda[3]. The science of Ayurveda upholds the prevention of disease by observing strict daily and seasonal regimen. Natural urges are also explained in the context of prevention and management of disease[4]. Flatus, defecation, micturition, sneezing, thirst, hunger, sleep, cough, dyspnea, yawning, lacrimation, vomiting and expulsion of semen are the natural urges which should not be forcibly suppressed or voluntarily executed[5]. Though feces and urine which are *Mala* (excretory end products), are included in these needs, sweat, the third one is excluded. This paper explores a possible reason for excluding sweat or perspiration, an important element of wellness and infirmity, from natural urges.

Mala: Metabolic Waste Products of the Body

Ayurveda give equal importance to the metabolic waste products along with other physiological elements on retaining health. Their appropriate formation and expulsion are necessary for a healthy living. These are three in number namely, *Pureesha* (feces), *Mutra* (urine) and *Sweda* (sweat) with normal and abnormal functions[6]. The defecation and micturition are also included in natural urges.

Natural Urges- Importance in Health and Disease

All diseases are caused by the forcible initiation of natural urges or by their voluntary suppression. There are 13 natural urges which should be suppressed and controlled[5]. While

evaluating those, it can be elicited that they are spontaneous in nature. Those are controlled by neuro endocrinal system. The suppression for a prolonged phase can trigger the negative feedback mechanism of the body impairing bio-physical and bio-chemical balance, thus causing disease. This can even cause an impaired immune response too. So, these should be followed for an indefinite time frame i.e., observed for the life time for maintaining health[7]. There are class of urges which should be balanced through control of sense organs. They are emotional faculties mainly controlled by the limbic system of the brain.

Sweda (Physiological Perspiration)

All living organisms perspire according to their own functioning. Perspiration or sweating is a physiological process of body to cope up with thermoregulation[8]. Ayurveda has included sweat in three basic end products of metabolism, the waste product[6]. It maintains the balance of watery elements, the depletion of which will cause dryness of skin. Thus, *Sweda* maintain the unctuousness of the skin, hairs and body hairs. The effect of which is throughout the body. The deficiency of sweat creates stiffness and loss of hair, breaking of skin[9].

Sweda Vaha Srothus (Channels of Sweat)

Srothus are micro channels in the body which are structural and functional components. It has a roots and channels throughout the body. *Sweda vaha srotus* is similar with *Medus* (adipose tissue) and *Romakoopa* (sweat gland) as it roots, which is spread all over the body[10].

Excessive and vigorous exercise, exposure to sever hot weather, exposure to cold weather immediately after sweating, indulgence in excessive eating of spicy and hot and pungent food, persistent anger, sorrow and fear can cause the impairment of *Swedovaha Srotas*. Impairment of *Swedovaha Srotas* causes abnormal and excessive perspiration, skin diseases like Psoriasis[10].

Thermoregulation and *Sweda*: Sweat Glands and Action

Thermoregulation preserves health by balancing core body temperature within a range or two of 37°C, which aids normal cellular function. Sweat glands respond to heat, exercise and stress to produce sweat. Eccrine glands and apocrine glands are the two types of sweat glands found in body. The eccrine sweat glands are distributed over much of the body and are responsible for secreting the watery, saline sweat most often triggered by excessive body temperature. The apocrine sweat glands are restricted to the armpits and a few other areas of the body and produce an odourless, oily, opaque secretion. This secretion gains odour by further bacterial decomposition[11].

Autonomic Nervous System and *Sweda*

Perspiration is controlled by the autonomic nervous system of the body, known for coordinating the involuntary actions of the body. Any flight and fight response causes several changes in the body including profuse sweating. The vast majority of sweat glands in the body are innervated by sympathetic cholinergic neurons[12]. Sympathetic postganglionic neurons typically secrete norepinephrine and are named sympathetic adrenergic neurons; however, the sympathetic postganglionic neurons that innervate sweat glands secrete acetylcholine and hence are termed sympathetic cholinergic neurons. Sweat glands, piloerector muscles, and some blood vessels are innervated by sympathetic cholinergic neurons.

Pathological Contemplation of *Sweda*

The diaphoresis in Ayurveda are explained as *Atisweda* (excessive perspiration) and *Asweda* (reduced perspiration). There are several disorders where the variations are seen. The excessive and depleted mode of perspiration can cause itching, foul smell and other skin disorders[9].

Hypothermia is decrease of core body temperature to less than 35.0°C. The symptoms are shivering, respiratory depression, dysrhythmias, impaired mental functions, mydriasis, hypotension and muscle dysfunction. The complications are progress to cardiac arrest or coma. Hyperthermia, on the other hand is the increase of core temperature above 40.5°C, presented with sweating, flushing, tachycardia, fatigue, light-headedness, headache, paraesthesia, progressing to weakness, muscle cramps, oliguria, nausea, agitation, hypotension, syncope, confusion, delirium, seizures, and eventually coma. Deaths from hypothermia are twice as frequent as deaths from hyperthermia[13].

Sweda as Treatment

Swedana (fomentation) therapy is a pre-operative procedure for major purificatory therapy in Ayurveda. *Dosha* which are loosened by lubrication therapy in the body tissues and body channels anywhere in the body are liquefied by fomentation and brought into gut for elimination by appropriate evacuation procedure[14].

Practice of physical exercise and seasonal regulation of it is described in Ayurveda so that the amount of perspiration is well adjusted to the seasons. From this we can deduct that this physiological process should be balanced according to the basic constitution of the individual and the climate to which he is exposed.

DISCUSSION

The concept of natural urges is an inimitable notion of Ayurveda. It has peculiar importance in maintenance of health. While evaluating these urges, it could be found that these are all originated spontaneously both physically and mentally. The execution of those can be controlled by will of the person experiencing it, inferring a higher center control of brain. Surprisingly, it is a matter of fact that perspiration is avoided from this which is as spontaneous as the other two (expulsion of waste products) *Mala pravrithi*- defecation and micturition. The urge of these are controlled with sphincter both voluntarily and involuntarily[15]. The major reasons for these may be that *Sweda* has its root all over the body in the form of adipose tissue and sweat glands and there was no control or environmental restriction of perspiration elicited in ancient days. In current days of sedentary lifestyle, severe climatic variations and use of external thermoregulatory methods like air-condition have changed the scenario. This can inhibit or alter perspiration resulting in several skin disorders and metabolic aberrations.

On other hand, Perspiration is controlled by the Autonomic nervous system which steers the involuntary actions of the body. Therefore, even in cold climate or air condition a stress or worry can cause perspiration. The post ganglionic sympathetic neuron which innervate the sweat glands also regulate the immune system[16]. So, a compromised immunity can be a consequence of diaphoresis. Thermoregulatory failure or exposure to environmental conditions that overwhelm the body's thermoregulatory capacity can present with hypothermia or hyperthermia, both of which carry substantial risk of morbidity and mortality. Dodging of danger and early recognition of cold or heat stress are the keystones of preventive therapy in thermoregulatory failure of body[13]. The presence of the root of production all over the body and absence of specific causes for the hindrance of expulsion may be the reasons of preclusion of *Sweda*. Action of autonomic nervous system explained contemporarily also adds to the idea.

CONCLUSION

Most of the studies show results on aberrated sweating patterns resulting in several disorders in current lifestyle. These conditions demand a deliberation on reconsidering the importance of *Sweda* and its impact on health in a novel perspective. Though regulation voluntarily is not mandated in Ayurveda classics in its specific context, present day claim a stress free and active life style to “perspire properly”. Such changes should be incorporated in learning and practice of the science for better motives. Researches on this regard shall be promoted.

REFERENCES

1. Acharya JT. Editor. reprint ed. Chaukambha Sanskrit Sansthan; Varanasi: 2009 .p. 370 (Susrutha Samhita with Nibandha sangraha commentary of Dalhana, sutrasthana; Doshadhatumala vridhiksaya Vijnaneeyam: chapter 15, verse 41)
2. Murthy K.R.S., editor. Vagbhata's astanga hrdayam, sutrasthana; Ayushkameeya adhyaya: chapter 1, verse 20, 7th ed. Chowkhamba Krishnadas Academy; Varanasi: 2000. p. 49.
3. Murthy K.R.S., editor. Vagbhata's astanga hrdayam, sutra sthana; Dinacharya adhyaya: chapter 2, verse 48, 7th ed. Chowkhamba Krishnadas Academy; Varanasi: 2000. p. 121.
4. Murthy K.R.S., editor. Vagbhata's astanga hrdayam, Sutrasthana; roganutpadaniya adhyaya: chapter 4, verse 36, 7th ed. Chowkhamba Krishnadas Academy; Varanasi: 2000. p. 162.
5. Murthy K.R.S., editor. Vagbhata's astanga hrdayam, sutra sthana; roganutpadaniya adhyaya: chapter 4, verse 1, 7th ed. Chowkhamba Krishnadas Academy; Varanasi: 2000. p. 145.
6. Murthy K.R.S., editor. Vagbhata's astanga hrdayam, sutra sthana; ayushkameeya adhyaya: chapter 1, verse 13, 7th ed. Chowkhamba Krishnadas Academy; Varanasi: 2000. p. 47.
7. Sreekumar T., editor. Vagbhata's Astanga hrdayam, sutrasthana; Roganutpadaniya adhyaya: chapter 4, 4th ed. Harisree hospitals; Thrissur: 2013. p.951
8. Christopher R.W. Edward, Ian A.D.Bouchier, Christopher Haslett, Edwin Chilvers, editors. Davidson’s Principles and Practice of Medicine (seventh edition). New York : ELBS with Churchill Liivingstone ; 1995
9. Murthy K.R.S., editor. 9th ed. Chaukhambha Orientalia; Varanasi: 2005. p. 75. (Astanga samgraha of vagbhata, Sutrasthana; Roganutpadaniya adhyaya: chapter 5, verse 21–22).
10. Dash B., Sharma R.K. Chowkhamba Sanskrit Series; 2009. Caraka samhita: Chikitsa sthana; Vata vyadhi chikitsa: chapter 28, verse 59; pp. 36–37 vimana 5/23.
11. Hall J Guyton A. Guyton and Hall textbook of medical physiology. 1st ed. Philadelphia, PA: Saunders Elsevier; 2011.p. 763.
12. Boron, Walter F., and Emile L. Boulpaep. "Sweating." Medical Physiology. Updated 2nd ed. Philadelphia: Elsevier, 2012. 1260-264.

13. Autonomic neuroscience-volume 196, April 2016, Thermoregulatory disorders and illness related to heat and cold stress: William P.Cheshire Jr, page 91 -104.
14. Murthy K.R.S., editor. 7th ed. Chowkhamba Krishnadas Academy; Varanasi: 2000. p. 49. (Vagbhata's astanga hrdayam, Sutrasthana; Roganutpadaniya adhyaya: chapter 4, verse 19, AH su 17/30
15. Guyton & Hall, Textbook of medical physiology, chap 63 propulsion and mixing of food in the alimentary tract, edition: 11th, reprint: 2006 Pg.No 781
16. Wang, E., Qiang, X., Li, J., Zhu, S., & Wang, P. (2016). The in Vitro Immune-Modulating Properties of a Sweat Gland-Derived Antimicrobial Peptide Dermcidin. Shock (Augusta, Ga.), 45(1), 28–32.

Cite this article as:
Aneesh T, Archana Madhavi. An Expository Appraisal on Sweda (Perspiration) And Its Preclusion From Adharaneeya Vega (Natural Urges). International Journal of Ayurveda and Pharma Research. 2020;8(10):91-94.
Source of support: Nil, Conflict of interest: None Declared

***Address for correspondence**
Dr Aneesh T
Assistant Professor
Department of Shareera Rachana, Motherhood Ayurveda medical College, Uttarakhand
Email: nicha.aneesh@gmail.com