



STRESS, RAKTA DHATU AND LIFESTYLE DISORDERS : AN INTERCONNECTED APPROACH

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Abstract : Ayurved prajnyanam “Swasthasya Swasthya Rakshanam” Prevention & “Aturasya Vikara Prashmanam”[1] manage the disorders for a healthy life. To follow the Panchakarma, Rasayana, Vajikarana, Ritucharya, Dinacharya, Sadvrutta. In the Present Era modern life style, Over stress, Lack of exercise, Heavy work load, viruddha ahara vihara, Smoking, Alcohol, Pollutions, Consumption of unhealthy and preserved food, Competition to others reduces individual happiness, impaired digestive and metabolism, reduces immune system, dysfunction of body affected human life and the pathophysiology involves prasaravastha of doshas along with Rasa, Rakta and Meda Dhatu from their respective sites to hamper respective Srotas for blood circulation that leads to severe and chronic diseases of the brain, heart, kidneys etc. If continue unhealthy life style leads to Dosha-dhatu vaishamyata, Agni bala vaishamyata (impaired digestion and metabolism), Sroto dushti (Dysfunction of body channels), harassment of satva (impaired mental condition) causing various types of life style disorders. Ayurveda deals with the prevention of diseases first then cure of diseases. Ayurveda mainly focuses on Ahara, Vihara and Aushadha for the treatment of any disease. Ahara along with Vihara is very important for the maintenance of health.

Keywords : Lifestyle disorder, Stress, Rakta dhatu, Dosha imbalance, Nutrition.

1. Introduction:

In today's fast-paced world, stress is a major public health issue. It affects people of all ages and backgrounds. Stress can arise from work demands, family responsibilities, and societal pressures. These factors often lead to serious physical and mental health problems.

Unhealthy lifestyle choices worsen the situation. Poor diets, lack of exercise, and inadequate sleep contribute to stress. Many people also rely too much on technology, which can increase anxiety. This neglect of health can result in diseases like heart disease, diabetes, and depression. The rise in lifestyle diseases is alarming. Cardiovascular disorders alone cause about 30% of global deaths. Rapid economic development and Westernization have accelerated this trend. It's essential to prioritize health and well-being in our busy lives.

In Ayurveda, Rakta dhatu (Blood tissue) is vital for health, transporting nutrients and oxygen throughout the body and reflecting emotional and physical well-being. Chronic stress disrupts this balance, compromising blood quality and function by triggering inflammation, impairing digestion, and unhealthy lifestyle choices. Chronic stress can lead to disturbances in Rakta Dhatu, contributing to the development of lifestyle disorders. Conversely, imbalances in Rakta Dhatu can exacerbate stress and its physiological effects. Rakta Dhatu is intricately connected to the Pitta dosha, responsible for metabolic functions and energy regulation.

Imbalances in Rakta Dhatu can lead to various health issues, particularly when influenced by stress and lifestyle factors. By exploring this intricate relationship through an Ayurvedic lens, we gain valuable insights into the underlying mechanisms that affect health, providing a foundation for holistic approaches to prevention and management.

2. Aim :

To explore the interconnections between stress, the Ayurvedic concept of Rakta Dhatu, and lifestyle disorders, highlighting the need for a holistic approach to health and well-being.

3. Objectives :

- To elucidate the meanings of stress, Rakta Dhatu, and lifestyle disorders within both modern and Ayurvedic frameworks.
- To analyze how chronic stress impacts Rakta Dhatu and contributes to the development of lifestyle disorders.
- To identify specific lifestyle factors (such as diet, exercise, sleep, and mindfulness) that influence stress levels and Rakta Dhatu health.
- To recommend integrative strategies for managing stress and promoting rakta Dhatu balance to prevent and treat lifestyle disorders.

4. Material & methods :

The data was derived from various Ayurvedic classical texts, relevant modern medical science books, websites and research & review articles published so far using PubMed, Medline, Google Scholar and manual search.

5. Modern and Ayurvedic perspective of Stress :

The term "stress" in Ayurveda correlates with the concepts of "Rajas" (activity, excitement) and "Tamas" (inertia, lethargy), which influence the three doshas—Vata, Pitta, and Kapha. Stress is viewed as a disturbance in the mind and body, manifesting as Acute, Chronic, or Emotional stress. Each type affects dosha balance, particularly impacting Vata and Pitta, leading to various physical and mental disorders[2].

Pathophysiology of Stress : Stress triggers a cascade of physiological responses, primarily through the hypothalamic-pituitary-adrenal (HPA) axis, resulting in increased production of cortisol and adrenaline. In Ayurveda, this hormonal imbalance affects the doshas and disturbs dhatu functioning. The impact of stress on rakta dhatu manifests in various ways, including blood viscosity, alterations in hematological parameter, and reduced immunity. Chronic stress is known to increase pitta dosha, leading to hyperactivity and inflammation, which can deplete rakta dhatu over time[3] and chronic stress can lead to condition such as HTN, Diabetes and Heart disease.

Rakta dhatu :

Jeevana, Varna Prasadana and Mamsapushti are the Prakruta karma of Raktadhatu[4]. According to Maharshi Sushruta "Dehasya Rudhiram Mulam" i.e. the existence of life depends upon the quantity and quality of Rakta[5]. Further it is explained that as like Tridosha are considered as Tristhuna (pillars) for the body, Rakta is also equally responsible for Shareera Sthiti (existence) and Laya (destruction)[6]. Acharya Charaka included Rakta under Dashavidha Pranayatana[7] in Vidhishonita Adhayaya. Arunadatta the commentator of Astanga Hridaya discussed that even though Rakta is having Sthana, Guna, Karma, Vriddhi and Kshaya as like Tridosha still is not been considered as Dosha[8]. Later Vagbhata established the Ashrayaashrayee (shelter and sheltered) relation between Pitta and Rakta[9]. Utpatti of Raktadhatu has been explained by almost all Acharya as per Kedari Kulya nyaya "RasadRaktamtatoMamsam"[10,11]. Rasa Dhatu when comes contact with Ranjaka Pitta in Yakrit and Pleeha converts into Rakta Dhatu[12]. Rakta Dhatu is formed from the essence of Rasa Dhatu (plasma), following a complex process involving digestion and metabolism. Factors such as diet, lifestyle, and emotional state play crucial roles in maintaining the quality of Rakta. Any disruption in these factors, including chronic stress, can lead to the vitiation of Rakta Dhatu. Stress can adversely affect Rakta Dhatu, leading to increased toxin accumulation (Ama), which compromises its quality. Elevated cortisol levels result in altered hemodynamics, raising blood pressure and disrupting nutrient delivery. Additionally, chronic stress weakens the immune system, increasing vulnerability to infections and diseases. Considering various pathological conditions both Acharya Charaka[13] and Maharshi Sushruta[14] explained list of Raktapradoshaja Vikara.

Ayurvedic perspective of lifestyle disorder :

Lifestyle disorders, or non-communicable diseases (NCDs), are chronic conditions linked to unhealthy lifestyles, including poor dietary habits, physical inactivity, and stress. These disorders, such as obesity, diabetes, and cardiovascular diseases, are rising globally and are major causes of death. Ayurveda associates lifestyle disorders with imbalances in doshas and Dhatus, particularly Rakta Dhatu, influenced by lifestyle choices, emotional disturbances, and environmental factors. While non-communicable diseases (NCDs) are frequently chronic and challenging to cure, they can be effectively managed and prevented through appropriate nutritional interventions and lifestyle modifications. Stress plays a significant role in exacerbating these imbalances by elevating Rajas and Tamas, while mental and emotional factors contribute to a feedback loop that further deteriorates overall health outcomes. Interconnection with Rakta Dhatu. The vitiation of Rakta Dhatu is intricately linked to the development of lifestyle disorders - Stress contributes to obesity through emotional eating and poor dietary choices, increasing Kapha dosha and vitiating Rakta Dhatu. Chronic stress raises blood sugar levels, leading to insulin resistance and impaired glucose metabolism in diabetes. Additionally, stress-induced hypertension and inflammation compromise Rakta Dhatu quality, contributing to cardiovascular diseases.

6. Causes and Etiopathogenesis of Stress, Lifestyle disorder, Rakta dhatu:

In Ayurveda, Stress is seen as an imbalance in the doshas, especially Pitta, which is responsible for transformation and metabolism. Main causes of stress include mental and emotional factors such as excessive worry and anxiety, which can exacerbate Pitta and lead to various symptoms. Lifestyle choices also play a significant role, with poor dietary habits, insufficient exercise, and inadequate sleep contributing to mental stress. Additionally, environmental factors, including noise and pollution, can further elevate stress levels.

Rakta Dhatu, vital for nourishment and overall vitality, can be negatively impacted by several factors. An improper diet, particularly the overconsumption of spicy, sour, or salty foods, can aggravate Pitta, leading to vitiation of Rakta dhatu and resulting in Inflammation and Skin diseases. Emotional stress can also vitiate Rakta Dhatu, causing symptoms like fatigue and irritability. Furthermore, the accumulation of toxins (ama) due to poor metabolic processes can compromise the quality of Rakta, contributing to conditions such as anemia and jaundice.

Lifestyle disorders arise from a complex interplay of physical, mental, and environmental factors. This includes Pradnyaparadha, or poor decision-making that disregards the body's signals, such as ignoring natural urges. A sedentary lifestyle can lead to toxin buildup and imbalances in the doshas. Unhealthy habits, including poor nutrition, excessive alcohol consumption, and smoking, Chronic stress impairs Agni, leading to poor digestion and the formation of Ama, which adversely affects Rakta Dhatu and contributes to the development of lifestyle disorders.

7. Dosha-Dhatu Interaction :

The interaction between Doshas and Dhatus is fundamental to ayurvedic pathology. Stress-induced dosha imbalances directly affect the quality of rakta Dhatu, leading to various pathological conditions.

Dosha	Lifestyle disorder
Vata	Stroke, Muscular dystrophy, COPD, Depression, Paralysis
Pitta	Hypertension, Dyslipidemia, Hairfall, Premature graying, Acne, Pigmentation, Hyperacidity
Kapha	Diabetes, Atherosclerosis, Hypothyroidism , Infertility , PCOD etc.

Dhatu	Functions	Upadhatu	Dosha, Dhatu & Mala	Related lifestyle disease
Rasa (Plasma and lymphatic)	Nourishment	Breast milk, menstrual blood	Kapha, Sweat, Tears, Saliva	Hypothyroidism, diabetes, hair fall
Rakta (Blood)	Life	Blood vessel , Tendons	Pitta	Skin disease, Hypertension, CVS disease
Mamsa (Muscular tissue)	Strength	Muscles Fat skin	Kapha, Ear wax, Nosy crusts	Goiter, lipoma Arbud, granthi
Meda (Adipose tissue)	Lubrication	Joints , Ligaments	Kapha, Sweat, Smegma	Obesity, dandruff Acne, lipoma
Asthi (Bony and skeletal tissue)	Support	Teeth	Vata, Hair, Nail	Osteoarthritis Teeth, nails, hair disorders
Majja (Bone marrow nervous tissue)	Generation filling	-	Vata secretion, Sebaceous gland & eyes	Giddiness, spinal disorders
Shukra (Generative tissue)	Reproduction	Ojas	Kapha , Smegma	Infertility Beej dosha

8. Samprapti :

Aetiology – Sedentary lifestyle, food which increase Pitta

Pitta pradhana tridosha dushti

Jatharagni vaishamya → Ama

Rakta Dhatwagnimandya

Sroto-avarodha and Rakta dhatu dushti

Lifestyle disorder

9. Discussion :

Every individuals constitution has its own unique balance of the tridosha. This balance of dosha indict the healthy state of body. The wrong diet, habits, lifestyle, incompatible food combination, seasonal changes repressed emotions & stress factors can allact either together or separately to change the balance of tridosha. According to the etiological factors tridosha undergo vitiation leading hypo function of agni (responsible for digestive & metabolic process) & as a result it produce Ama (improperly metabolized toxic component). This ama being sticky in nature blocks the circulatory channels (srotas), there by inhibits nourishment of tissue by the nutrient fluids. This ama gets mixed up with the dosha and dhatu to causes different morbidities, the further production of ama can be prevent & cure by adopting modified life style & various panchakarma procedures. Some lifestyle disease to control by panchakarma such as 1.Vaman- hyper acidity, hypothyroidism, copd, chronic rhinitis, acne, pigmentation, dandruff, obesity etc 2. Virechan- hypothyroidism, diabetes, obesity, anaemia, skin disease, hair fall, infertility, infective pathology etc 3.Basti – hemiplegia, paralysis, ankylosing spondylitis, all vata disorders, infertility etc 4. Nasya – headache, depression, insomnia etc 5. Rakta mokshan – skin disease, pittaj disorders, any obstructive pathology in blood circulation, primary cancer etc. In the factors involved in pathogenesis of these life style disorders are reviewed on the basis of ayurveda. The symptoms shows Rakta dusti, Pitta dusti, Agnimandya etc.

10. Conclusion :

There is a great need of time of globalization of ayurvedic principles of charak, sushrut, vagbhata in the references to prevent and cure the life style disorders. In charak samhita section sutra sthan fully describe "swastha chatuska" [15] personal hygiene for maintenance positive health including matrasitiya chapter (ahar description), tasyasitiya (ritucharya), naveganna dharniya (should not suppress natural urges) & indriyopkramneeya (sadvrat) are completely related to healthy life style its most important to ayurvedic physician. Charak in its section chikitsa starts with an exhaustive chapter on rasayan therapy dealing with physiological, pharmacological, therapeutical & clinical aspect of rasayan. Charak appears to have correlated this with the fundamental principle of ayurveda as related to concept of ras samvhan, concept of dhatu, agni, bala, srotas etc. Charak kalpa & siddhi sthan is completely for detoxification of body through panchakarma. In sushrut samhita also describe two type of rasayan kamaya rasayan for prevent and naimittik rasayan for cure of disease. Sushrut chikitsa anagat badha pratishedha chapter is fully describe daily routine for healthy life style. Vagbhata also says in ashtanga sangrah & hridaya to the same. It is now considered that most of the chronic disorders like diabetes, bronchial asthma, hypertension, copd, obesity, chronic liver disease, psoriasis, arthritis, dyslipidemia, cancer etc are occurring due to pragyapradh refers to faulty life style So ayurveda texts play an important role in promoting the health & prolonging the life span by establishing homeostasis between dosha dhatu mala. It helps to keep disease free. With ayurvedic system of medicine to promote the psychosomatic health to reduce the morbidity and reduce burden society.

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