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CONCEPTUAL UNDERSTANDING OF *RAKTAGATA VATA* IN AYURVEDIC CLASSIC AND ITS MODERN CORRELATION WITH HYPERTENSION

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ABSTRACT

Background: *Raktagata Vata* is a pathological state described in Ayurvedic classics in which *Vata* gets lodged in *Rakta Dhatu*, leading to derangements in circulation and vascular functions. Classical signs include *Bhrama* (giddiness), *Murchha* (fainting), *Shiro Ruja* (headache), and *Uchcha Shwasa* (breathlessness), which can parallel features of sustained high blood pressure in modern medicine. Hypertension, defined as persistently elevated arterial blood pressure, shares common pathogenic threads with *Raktagata Vata*, such as vascular resistance, altered hemodynamics, and end-organ strain. Understanding their correlation allows for integrative interpretations that can inform preventive and therapeutic strategies. **Aim:** To explore the concept of *Raktagata Vata* in Ayurvedic literature and correlate it with modern pathophysiology of hypertension. **Materials and Methods:** A comprehensive literary review was conducted using classical Ayurvedic treatises (*Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*) and authoritative commentaries for descriptions of *Raktagata Vata*. Modern medical literature, including standard cardiology textbooks and peer-reviewed articles on hypertension, was reviewed for correlating pathophysiological aspects. Comparative analysis was performed to identify overlapping symptoms, etiological factors, and disease progression patterns. **Observations:** Ayurvedic texts describe *Raktagata Vata* as arising from *Vata Prakopa* with simultaneous *Rakta Dushti*, often precipitated by *Ruksha*, *Laghu* ahara-vihara, mental stress, and excessive exertion. Symptomatology shows overlap with hypertension—particularly headaches,

dizziness, palpitations, and fatigue. Modern understanding of hypertension identifies increased peripheral vascular resistance, endothelial dysfunction, and neurohormonal imbalance, which can be conceptually mapped to *Vata* aggravation and *Rakta* impairment. **Discussion:** Correlating *Raktagata Vata* with hypertension reveals that both involve disruption in vascular tone and circulation dynamics. Ayurvedic pathogenesis attributes it to qualitative and quantitative vitiation of *Rakta Dhatu* coupled with aggravated *Vata*, leading to impaired *Srotas* function, which aligns with endothelial and arterial stiffness in hypertension. This conceptual bridge suggests that Ayurvedic management focusing on *Vata-Rakta Shamana*, *Srotoshodhana*, and lifestyle regulation could complement modern antihypertensive approaches. **Conclusion:** The conceptual understanding of *Raktagata Vata* provides an Ayurvedic framework to interpret hypertension's pathophysiology and symptomatology. Integrative exploration enriches preventive and therapeutic strategies, emphasizing individualized management through diet, lifestyle, and *Vata-Rakta* balancing interventions.

KEYWORDS: *Raktagata Vata*, *Vata Dosha*, *Rakta Dushti*, Hypertension, Ayurvedic Pathophysiology, Integrative Medicine

INTRODUCTION

Ayurveda, the ancient science of life, emphasizes a holistic approach to maintaining health and preventing disease. The equilibrium of *Dosha*, *Dhatu*, and *Mala*, along with proper functioning of *Agni* and unobstructed *Srotas*, forms the foundation of well-being. Disturbance in these factors leads to the manifestation of disease. Among the *Tridosha*, *Vata* is the primary force governing all movements, circulations, and neural transmissions within the body. When *Vata* is vitiated, particularly in association with *Rakta Dhatu*, a distinct pathological state known as *Raktagata Vata* arises.¹

In classical texts such as *Charaka Samhita* and *Sushruta Samhita*, *Raktagata Vata* is described as a condition where *Vata* is lodged in the *Rakta*, leading to qualitative and quantitative vitiation of blood. The vitiated *Vata* in *Rakta Dhatu* disrupts the smooth flow within the *Raktavaha Srotas*, producing symptoms like *Bhrama* (giddiness), *Murchha* (fainting), *Shiro Ruk* (headache), *Uchcha Shwasa* (breathlessness), and *Toda* (pricking pain). These clinical features suggest both nervous and circulatory involvement.²

The Ayurvedic pathogenesis (*Samprapti*) of *Raktagata Vata* begins with *Vata Prakopa* caused by factors like excessive exertion, fasting, mental stress, and consumption of *Ruksha* (dry),

Laghu (light), and *Tikta* (bitter) diet. When such aggravated *Vata* enters the *Rakta Dhātu* and circulates within the vascular system, it alters the normal viscosity, pressure, and flow of blood. Simultaneous *Rakta Dushti* results from excessive intake of hot, salty, and sour food, alcohol, exposure to heat, and anger. This combination leads to impaired elasticity and function of the *Raktavaha Srotas*, analogous to vascular stiffness and dysfunction in modern pathology.³

Hypertension is defined in modern medicine as a sustained elevation of arterial blood pressure above normal ranges, typically $\geq 140/90$ mmHg in adults. It is a major risk factor for cardiovascular diseases, stroke, and renal disorders. The condition arises from a complex interplay of genetic predisposition, lifestyle factors, neurohormonal dysregulation, and structural changes in blood vessels. Clinically, hypertension often presents with headaches, dizziness, palpitations, and in severe cases, visual disturbances or loss of consciousness, many of which overlap with the symptomatology of *Raktagata Vata*.⁴

From a comparative viewpoint, *Raktagata Vata* can be conceptually correlated with hypertension based on similarities in etiological factors, pathogenesis, and symptom expression. In both conditions, there is a disturbance in vascular tone and blood flow dynamics. *Vata Prakopa* parallels increased vascular resistance, while *Rakta Dushti* resembles biochemical and rheological changes in the blood seen in hypertension. Both involve functional impairment of circulatory channels, leading to systemic effects on target organs like the brain, heart, and kidneys.⁵

An integrative understanding of *Raktagata Vata* and hypertension can enrich diagnostic and therapeutic perspectives. Ayurvedic management emphasizes *Vata-Rakta Shamana*, *Srotoshodhana*, lifestyle modification, and dietary regulation, which can complement modern pharmacological control of blood pressure. By merging classical insights with contemporary research, practitioners can develop a comprehensive approach that addresses both the symptomatic relief and root causes of hypertension, thereby improving long-term cardiovascular health outcomes.⁶

AIM AND OBJECTIVES

Aim

To study *Raktagata Vata* in Ayurvedic classics and correlate it with hypertension in modern medicine.

Objectives

1. Compile classical references on *Raktagata Vata*.
2. Study its *Nidana*, *Samprapti*, and *Lakshana*.
3. Review modern concepts of hypertension.
4. Correlate Ayurvedic and modern views.
5. Explore Ayurvedic management possibilities.

MATERIAL AND METHODS

The present study is a literary and conceptual research based on classical Ayurvedic and modern medical sources. References related to *Raktagata Vata* were collected from *Charaka Samhita*, *Sushruta Samhita*, *Ashtanga Hridaya*, and other authoritative Ayurvedic texts along with their commentaries. Modern information on hypertension was compiled from standard medical textbooks, clinical guidelines, and peer-reviewed journals. Comparative analysis was carried out to identify similarities and differences in etiological factors, pathogenesis, and clinical features between *Raktagata Vata* and hypertension. The study emphasizes textual interpretation, cross-referencing, and conceptual correlation without experimental or clinical intervention.

RAKTAGATA VATA

The term *Raktagata Vata* is derived from three words: *Rakta* (blood), *Gata* (lodged or entered), and *Vata* (one of the three *Dosha*). In Ayurvedic pathology, it refers to the state where aggravated *Vata Dosha* resides within *Rakta Dhātu*, causing qualitative and quantitative disturbances in blood and its circulation. Classical Ayurvedic literature clearly describes it as a *Vata Vikara* affecting the *Raktavaha Srotas* and manifesting with specific *Lakshana* (clinical features).⁷

Etiology (Nidana)⁸

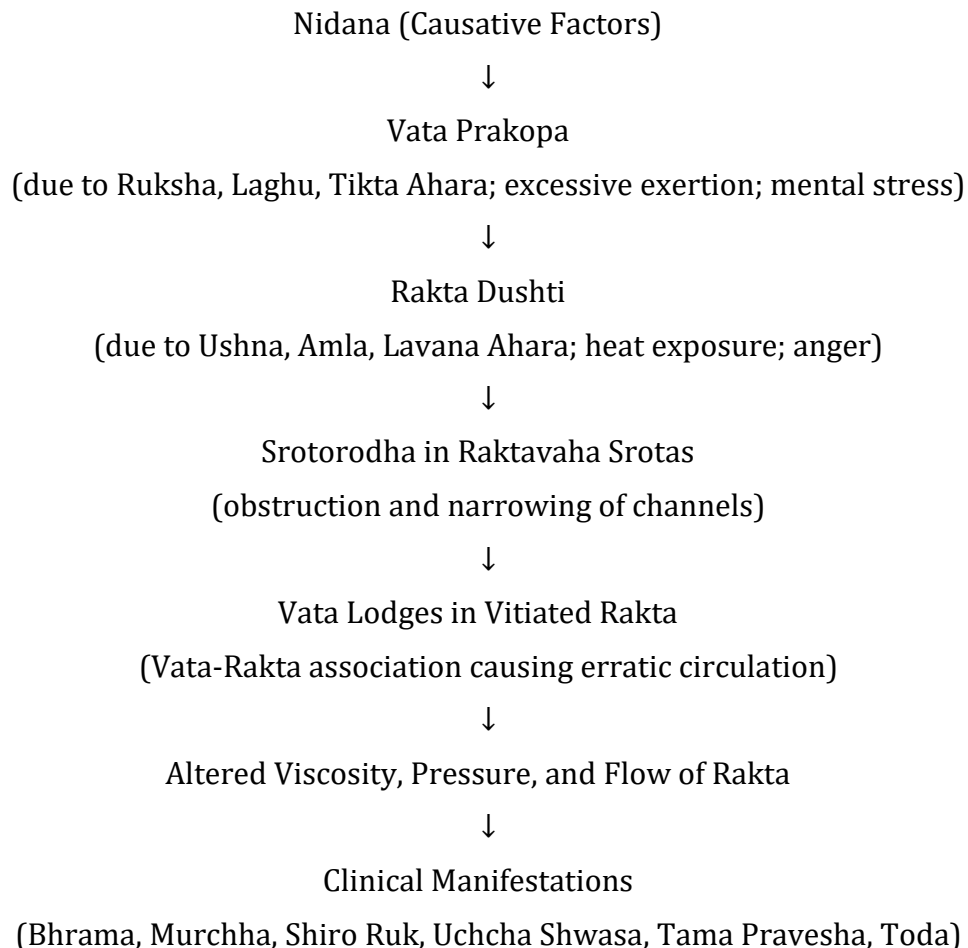
Ayurvedic causative factors for *Raktagata Vata* include:

- **Ahara (Dietary causes):** Excess intake of *Ruksha* (dry), *Laghu* (light), *Tikta* (bitter), *Kashaya* (astringent) foods; excessive use of *Amla* (sour), *Lavana* (salty), and *Ushna* (hot) foods causing *Rakta Dushti*.
- **Vihara (Lifestyle causes):** Excessive physical exertion, fasting, night awakening, excessive exposure to sun or heat.

- **Manasika Nidana (Mental causes):** Anger, stress, and emotional disturbances.

Pathogenesis (*Samprapti*)⁹

- Stage 1: **Vata Prakopa** – Triggered by *Vata* aggravating diet and lifestyle.
- Stage 2: **Rakta Dushti** – Due to *Ushna*, *Amla*, and *Lavana* predominant factors affecting the *Raktavaha Srotas*.
- Stage 3: **Srotorodha** (obstruction) and altered flow – Vitiating *Vata* enters the vitiating *Rakta*, impairing its viscosity, volume, and pressure.
- Stage 4: **Clinical manifestation** – Symptoms appear due to impaired vascular tone, abnormal pressure, and disrupted microcirculation.



Clinical Features (*Lakshana*)¹⁰

Ayurvedic texts list the following signs and symptoms:

- *Bhrama* – Giddiness or vertigo

- *Murchha* – Fainting spells
- *Shiro Ruk* – Headache, often throbbing
- *Uchcha Shwasa* – Breathlessness
- *Toda* – Pricking pain in body
- *Tama Pravesha* – Temporary blackouts in vision
- *Haridra Netra* – Yellowish discoloration of sclera
- *Raga* – Redness of eyes or skin patches
- *Gaurava* – Heaviness in the body

Modern Correlation with Hypertension¹¹

Many clinical features of *Raktagata Vata* align with those of hypertension:

- Headache, giddiness, and blackout episodes match with high BP–related neurological symptoms.
- Breathlessness reflects cardiovascular strain due to elevated afterload.
- Pricking or pulsatile pain corresponds to vascular changes and high arterial pressure.
- Redness of eyes (*conjunctival congestion*) and yellowish tinge (in severe cases with secondary liver involvement) can also be noted in advanced hypertension.

Pathophysiological Link:¹²

- *Vata Prakopa* → Increased vascular tone and stiffness → Comparable to increased peripheral vascular resistance.
- *Rakta Dushti* → Altered rheology and endothelial dysfunction → Comparable to hypertension's vascular pathology.
- *Srotorodha* → Impaired microcirculation → Comparable to target organ damage in chronic hypertension.

Management Perspective

Ayurveda prescribes *Vata-Rakta Shamana* measures, *Snehana*, *Swedana*, *Mridu Shodhana*, and *Rasayana* therapies. Dietary advice includes unctuous, warm, and easily digestible foods; lifestyle recommendations focus on stress control, avoiding exertion, and ensuring adequate rest. Modern management includes antihypertensive drugs, lifestyle modification, and monitoring. An integrative approach combining both can enhance patient outcomes.¹³

MODERN REVIEW

Hypertension

Hypertension is a chronic medical condition characterized by persistently elevated arterial blood pressure, generally defined as systolic blood pressure ≥ 140 mmHg and/or diastolic blood pressure ≥ 90 mmHg on repeated measurements. It is a major risk factor for cardiovascular diseases, stroke, renal impairment, and other end-organ damages.¹⁴

Etiology: Hypertension is broadly classified into:

- **Primary (Essential) Hypertension** – accounting for about 90–95% of cases, with multifactorial causes such as genetic predisposition, high salt intake, obesity, sedentary lifestyle, stress, and aging.
- **Secondary Hypertension** – resulting from identifiable conditions like chronic kidney disease, endocrine disorders (e.g., hyperthyroidism, pheochromocytoma), coarctation of the aorta, and certain medications.¹⁵

Pathophysiology:¹⁶

Hypertension results from a complex interaction of hemodynamic, neurohormonal, and vascular factors:

- **Increased Peripheral Vascular Resistance** due to vasoconstriction and structural narrowing of arterioles.
- **Neurohormonal Imbalance** involving the renin–angiotensin–aldosterone system (RAAS) and sympathetic nervous system overactivity.
- **Endothelial Dysfunction** leading to impaired nitric oxide–mediated vasodilation.
- **Arterial Stiffness** associated with aging and atherosclerosis.

Clinical Features:

Hypertension is often asymptomatic in early stages, earning the name “silent killer.” When symptomatic, patients may present with headaches (especially occipital), dizziness, palpitations, visual disturbances, fatigue, or epistaxis. Severe or long-standing hypertension may lead to hypertensive emergencies with neurological, cardiac, or renal complications.¹⁷

Complications:

Persistent uncontrolled hypertension can cause:

- Cardiovascular: Left ventricular hypertrophy, ischemic heart disease, heart failure

- Cerebrovascular: Stroke, transient ischemic attacks
- Renal: Chronic kidney disease, nephrosclerosis
- Ocular: Hypertensive retinopathy

Management:

Treatment includes lifestyle modifications (salt restriction, weight control, regular exercise, stress management, smoking cessation) and pharmacological therapy (diuretics, beta-blockers, ACE inhibitors, angiotensin receptor blockers, calcium channel blockers). Long-term control is essential to prevent target organ damage and improve life expectancy.¹⁸

RESULTS AND FINDINGS

- *Raktagata Vata* in Ayurvedic texts and hypertension in modern medicine show close similarity in etiological factors, pathogenesis, and symptomatology.
- Both conditions involve altered vascular tone, increased resistance, and impaired blood flow.
- Common symptoms include headache, giddiness, fainting, visual disturbances, and breathlessness.
- Dietary and lifestyle triggers such as high salt intake, mental stress, improper food habits, and excessive exertion are shared risk factors in both.
- Ayurvedic *Samprapti* (Vata Prakopa with Rakta Dushti) parallels modern mechanisms like sympathetic overactivity, endothelial dysfunction, and arterial stiffness.
- Findings suggest that Ayurvedic *Vata-Rakta Shamana* and lifestyle modification approaches could complement modern antihypertensive strategies for holistic management.

DISCUSSION

The analysis of classical Ayurvedic literature shows that *Raktagata Vata* is a condition arising from the simultaneous aggravation of *Vata Dosha* and vitiation of *Rakta Dhatu*. This combination impairs the functional integrity of the *Raktavaha Srotas*, leading to disturbed circulation, erratic blood flow, and specific symptomatology. Modern medical science explains hypertension as a state of persistently elevated arterial blood pressure due to

increased peripheral resistance, neurohormonal imbalance, and vascular structural changes. When viewed together, both pathophysiological models describe a process of circulatory disruption where the vascular channels lose their normal elasticity and tone, resulting in clinical manifestations that are strikingly similar.¹⁹

The symptoms described for *Rakta-gata Vata*—such as *Bhrama* (giddiness), *Murchha* (fainting), *Shiro Ruk* (headache), *Tama Pravesha* (blackout), and *Uchcha Shwasa* (breathlessness)—align closely with the neurological and cardiovascular symptoms of hypertension. Headache in both conditions reflects increased intracranial pressure or vascular strain. Breathlessness corresponds to the cardiac workload associated with sustained high blood pressure. Visual disturbances in *Rakta-gata Vata* mirror hypertensive retinopathy or transient ischemic episodes in modern pathology. This symptom overlap strengthens the conceptual link between the two entities.²⁰

Ayurveda attributes *Rakta-gata Vata* to improper diet (*Ahara*) and lifestyle (*Vihara*) factors such as excessive intake of *Lavana*, *Amla*, and *Ushna* foods, high physical exertion, mental stress, and suppression of natural urges. Modern medicine recognizes similar triggers for hypertension, including high salt intake, obesity, stress, sedentary habits, and excessive alcohol consumption. This shared etiological framework suggests that preventive measures advised in Ayurveda, such as dietary moderation, stress management, and regular activity, are in alignment with modern non-pharmacological interventions for blood pressure control.²¹

From a management perspective, the Ayurvedic approach to *Rakta-gata Vata* focuses on *Vata-Rakta Shamana* through *Snehana*, *Swedana*, *Mridu Shodhana*, *Rakta Prasadana* herbs, and lifestyle regulation. These measures aim to restore vascular health, improve circulation, and reduce systemic stress. Modern hypertension treatment emphasizes pharmacological agents alongside lifestyle modification to reduce blood pressure and prevent target organ damage. An integrative approach that combines Ayurvedic dietary and lifestyle measures with evidence-based modern therapies could offer comprehensive and sustainable control, addressing both the symptomatic relief and root causes of the condition.²²

CONCLUSION

The conceptual study establishes a strong correlation between *Rakta-gata Vata* described in Ayurvedic classics and hypertension in modern medicine, with both sharing similar

etiological factors, pathogenesis, and clinical features. The Ayurvedic explanation of *Vata Prakopa* with *Rakta Dushti* parallels the modern understanding of increased vascular resistance, endothelial dysfunction, and arterial stiffness. This alignment suggests that Ayurvedic preventive strategies, dietary regulations, and *Vata-Rakta Shamana* therapies can complement modern antihypertensive measures, offering a more holistic and individualized approach to prevention and management.

CONFLICT OF INTEREST – NIL

SOURCE OF SUPPORT -NONE

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