

Conceptual Correlation of Raktapitta Pūrvārūpa with Essential Hypertension: Mechanistic Parallels, Therapeutic Targets, and Pharmaceutical Delivery Perspectives

Vd. Dnyaneshwar Ankanna Shinde^{1*}, Vd. Priyanka Adhav², Vd Amit Yenbhar³, Vd Shimpi Jitendra⁴,
Dr. Prajakta Matkar⁵

^{1*}Assistant Professor, Department of Samhita & Siddhanta, Ashvin Rural Ayurved College, Manchi Hill, Sangamner (*Corresponding author)

²Assistant Professor, Department of Samhita & Siddhanta, Ashvin Rural Ayurved College, Manchi Hill, Sangamner (drmauly83@gmail.com)

³Assistant Professor, Department of Samhita and Siddhant, New Life Medical college, Koregaon Bheema Pune, Maharashtra

⁴Professor Department of Rachana Sharir, Ashvin Rural Ayurved College, Manchi Hill, Sangamner

⁵Assistant Professor, Department of Ayurved Samhita & Siddhant, Datta Meghe Ayurvedic Medical College Hospital and Research Centre, Nagpur (prajaktadmatkar@gmail.com)

ABSTRACT

Raktapitta is traditionally classified in Ayurvedic science as a severe, life-threatening hemorrhagic disorder arising from the concurrent vitiation of *Pitta Dosha* and *Rakta Dhatu* (blood tissue). This pathological state leads to increased metabolic heat (*Uṣṇa*), penetrating intensity (*Tikṣṇa*), intravascular hydrostatic pressure, and excessive fluid volume (*Drava Vṛddhi*) within the *Raktavaha Srotas* (circulatory micro-channels). Classical treatises—most notably the *Charaka Saṁhitā* (*Cikitsā Sthāna* 4, *Nidāna Sthāna* 2), *Suśruta Saṁhitā* (*Uttara Tantra* 46), and *Aṣṭāṅga Hṛdayam* (*Uttara Tantra* 13)—document a distinct cluster of *Pūrvārūpa* (premonitory prodromal signs) preceding overt hemorrhage. These clinical manifestations include cephalic heaviness (*Śiroguruṭva*), systemic burning (*Paridāha*), altered sensory and gustatory sensations (*Lohagandhitvā*), vertiginous states (*Bhrama*), and visceral/gastrointestinal distress. Modern clinical cardiology classifies essential hypertension as a complex, multi-systemic cardiovascular pathology driven by endothelial dysfunction, autonomic nervous system dysregulation, increased systemic vascular resistance, and circulatory hyper-reactivity. Although essential hypertension is frequently characterized as an insidious or "silent" disease, patients in hypertensive phases routinely display subtle prodromal clinical features—including morning occipital headaches, facial flushing, epistaxis, dizziness, cardiac awareness/palpitations, and systemic fatigue. This comprehensive integrative review synthesizes classical Ayurvedic paradigms (*Pitta-Rakta Duṣṭi*, *Raktagata Vāta*, and *Srotoduṣṭi*) with contemporary cardiovascular hemodynamics, establishing a detailed conceptual bridge between *Raktapitta Pūrvārūpa* and hypertensive states. By systematically analyzing shared etiological triggers (*Nidāna*), clinical features, and cellular-vascular mechanisms, this review provides a translational framework for diagnostic risk stratification, preventive cardiology, and integrative therapeutic protocols.

Keywords: Raktapitta, Pūrvārūpa, Essential Hypertension, Raktagata Vāta, Pitta-Rakta Duṣṭi, Srotoduṣṭi, Endothelial Dysfunction, Sympathetic Hyperactivity, Vascular Stiffness, Integrative Medicine.

How to cite this article: Vd. Dnyaneshwar Ankanna Shinde^{1*} Vd. Priyanka Adhav² Vd Amit Yenbhar³ Vd Shimpi Jitendra⁴ Dr. Prajakta Matkar⁵. Conceptual Correlation of Raktapitta Pūrvārūpa with Essential Hypertension: Mechanistic Parallels, Therapeutic Targets, and Pharmaceutical Delivery Perspectives. Int J Drug Deliv Technol. 2026;16(84s):483-496. DOI: 10.25258/ijddt.16.84s.52.

INTRODUCTION AND HISTORICAL CONTEXT

Raktapitta is described across all major Ayurvedic classics as a severe, acute hemorrhagic syndrome characterized by blood escaping from the body's upper, lower, or cutaneous orifices (*Ūrdhva*, *Adho*, and *Ubhaya Mārga*). Rooted in the fundamental Ayurvedic physiological principle that *Pitta Dosha* and *Rakta Dhatu* share an intrinsic, mutually dependent relationship (*Āśraya-Āśrayī Bhāva*), any pathological increase in the *Uṣṇa* (thermal), *Tikṣṇa* (sharp/penetrating), and *Drava* (liquid) properties of Pitta directly impairs the qualitative and quantitative stability of Rakta.

Classical texts—including the *Charaka Saṁhitā* (Charaka and Sharma, 2014), *Suśruta Saṁhitā* (Sushruta and Murthy, 2012), and *Aṣṭāṅga Hṛdayam* (Vagbhata and Murthy, 2018)—unanimously

emphasize that before overt vascular breach or frank hemorrhage occurs, the human physiology manifests a distinct prodromal phase known as *Pūrvārūpa*. These premonitory features—ranging from *śirahśūla* (vascular headache) and *bhrama* (dizziness/giddiness) to *murchā* (fainting/syncope tendencies), *dāha* (burning sensations), and facial discoloration—represent an acute, unstable hemodynamic state driven by hyper-dynamic Pitta and disturbed intravascular fluid dynamics.

In contemporary integrative medicine, researchers and Ayurvedic clinicians have sought to establish pathophysiological bridges between traditional disease constructs and modern medical diagnoses. A major area of clinical investigation focuses on primary (essential) hypertension, a widespread

global cardiovascular risk factor. Contemporary scholars have proposed several conceptual frameworks to reinterpret modern hypertensive disorders through classical paradigms:

1. **The Raktagata Vāta Framework:** Highlights increased arterial wall tension due to loss of vascular compliance, reduced elasticity, impaired luminal laminar flow, and cephalic pressure symptoms analogous to tension-type or hypertensive headaches (Singh & Kumar, 2025; Sharma et al., 2024). This model posits that when *Vāta Dosha* becomes pathologically localized within *Rakta Dhatu*, it induces erratic vasomotor tone, arterial constriction, and systemic blood pressure spikes.
2. **The Pitta-Rakta Duṣṭi Framework:** Focuses on thermal dynamics, intravascular volume expansion, turbulence, and vascular endothelial irritability (Nadakattin et al., 2020; Agrawal, 2021). This model suggests that *Pitta Prakopa* increases blood fluidity (*Drava Vṛddhi*), enhances peripheral vasodilation, and drives central neuro-vascular congestion—features matching or hyper-dynamic hypertension.
3. **The Kaphaja Rakta Duṣṭi and Srotoduṣṭi Frameworks:** Describe hypertension-like conditions characterized by *alpasrava* (minimal bleeding tendency), *manda gati* (sluggish flow), *saṅga* (luminal obstruction), and structural endothelial changes (Sahu et al., 2015; Gajera et al., 2024). These concepts align with biomedical models of increased blood viscosity, high systemic vascular resistance (SVR), atherosclerosis, and vascular remodeling.

Although essential hypertension is classically described in modern textbooks as an asymptomatic or "silent" condition, real-world clinical presentations frequently involve labile phases marked by non-specific symptoms: morning headaches, dizziness, facial flushing, irritability, palpitations, visual floaters, and episodic syncope. Furthermore, clinical evidence confirms that spontaneous epistaxis (nosebleeds) occurs frequently in individuals with uncontrolled or rapidly fluctuating blood pressure (Basnyat et al., 2020), reinforcing the clinical overlap with upper-tract Raktapitta (*Ūrdhva Raktapitta*). Furthermore, classical Ayurvedic texts identify dietary, behavioral, and psycho-emotional triggers for *Pitta-Rakta* aggravation—such as excessive consumption of salt (*lavāṇa-sevana*), intense anger (*krodha*), physical overexertion (*ati-śrama*), and direct heat exposure (*ūṣṇa-parisaṅga*) (Charaka and Sharma, 2014; Sushruta and Murthy, 2012; Vagbhata and Murthy, 2018). These triggers map

onto modern, evidence-based risk factors for hypertension, including high sodium intake, chronic psychological stress, physical exertion, excessive alcohol consumption, and thermal stress (Whelton et al., 2018; Carretero & Oparil, 2000; Beevers et al., 2001).

Given these clinical, etiological, and physiological overlaps, a comprehensive comparative analysis between the *Pūrvārūpa* of Raktapitta and hypertensive manifestations is clinically valuable. Bridging these traditional and contemporary concepts can enhance risk identification, support preventive cardiology, and inform integrative treatment approaches.

AIM AND OBJECTIVES

Aim

To establish a rigorous conceptual and clinical correlation between the *Pūrvārūpa* (premonitory symptoms) of Raktapitta as documented in classical Ayurvedic texts and the clinical manifestations of hypertension reported in contemporary biomedical literature.

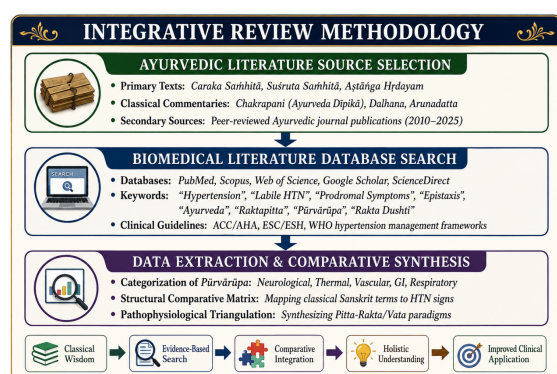
Objectives

1. **Classical Literature Review:** Systematically analyze classical descriptions of Raktapitta and its prodromal phase (*Pūrvārūpa*) across primary texts (*Charaka Saṁhitā*, *Suśruta Saṁhitā*, *Aṣṭāṅga Hṛdayam*) and their principal commentaries (*Ayurveda Dīpikā*, *Nibandha Saṁgraha*, *Sarvāṅgasundarā*).
2. **Biomedical Mapping:** Identify and characterize the clinical manifestations of essential hypertension within contemporary biomedical literature.
3. **Symptom Matrix Comparison:** Construct a comparative clinical matrix mapping specific Ayurvedic *Pūrvārūpa* against corresponding clinical manifestations of hypertension.
4. **Etiological and Pathophysiological Synthesis:** Evaluate shared risk factors (*Nidāna*) and biological mechanisms uniting *Pitta-Rakta Duṣṭi* and *Raktagata Vātā* with modern hypertension concepts (such as endothelial stress, sympathetic overactivity, and altered arterial compliance).
5. **Integrative Framework Proposal:** To develop an integrative conceptual framework explaining the clinical and pathophysiological parallels between Raktapitta *Pūrvārūpa* and hypertension.

MATERIALS AND METHODS

Study Design

This study utilized a narrative integrative review methodology to synthesize qualitative historical data from classical Ayurvedic literature with quantitative clinical findings from modern cardiovascular research.



Literature Sources

- Ayurvedic Classical Texts:** Primary source analysis included the *Charaka Saṁhitā* (*Sūtra*, *Nidāna*, and *Cikitsā Sthānas*), *Suśruta Saṁhitā* (*Sūtra* and *Uttara Tantras*), and *Aṣṭāṅga Hṛdayam* (*Nidāna* and *Uttara Tantras*). Scholarly commentaries evaluated included Chakrapani Datta's *Ayurveda Dīpikā*, Dalhana's *Nibandha Saṁgraha*, and Arunadatta's *Sarvāṅgasundarā*.
- Biomedical and Cardiovascular Literature:** Scientific articles were retrieved from PubMed, Google Scholar, ScienceDirect, and Web of Science. Guidelines reviewed included publications from the American College of Cardiology/American Heart Association (ACC/AHA), European Society of Cardiology (ESC), and World Health Organization (WHO) published between 2010 and 2025.

Search Strategy and Inclusion Criteria

The systematic literature search utilized the following keywords and Boolean operators: ("hypertension" OR "essential hypertension" OR "labile hypertension" OR "hypertensive urgency") AND ("prodromal symptoms" OR "epistaxis" OR "headache" OR "vascular resistance") AND ("Ayurveda" OR "Raktapitta" OR "Purvarupa" OR "Rakta Dushti" OR "Raktagata Vata").

- Inclusion Criteria:** Classical texts detailing *Raktapitta Nidāna*, *Samprāpti*, and *Pūrvārūpa*; peer-reviewed studies analyzing Ayurvedic vascular concepts; clinical trials and epidemiological studies detailing hypertensive symptoms; and official cardiovascular guidelines.
- Exclusion Criteria:** Non-peer-reviewed commentaries, studies lacking clear diagnostic definitions, and articles focusing solely on advanced target-organ damage (such as end-stage renal disease or stroke) without addressing prodromal manifestations.

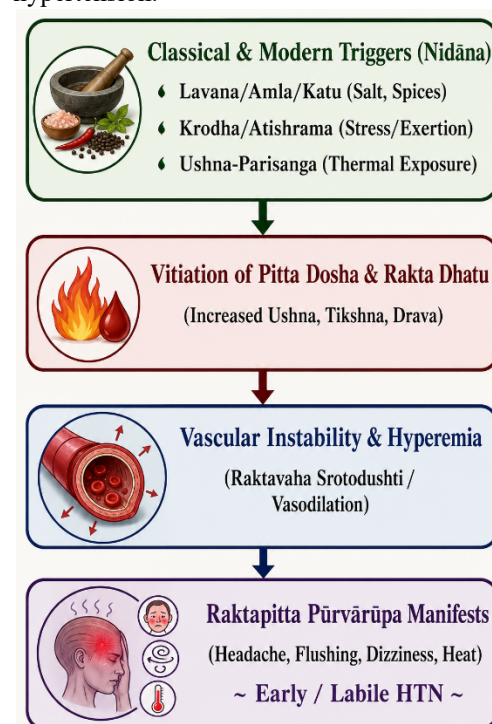
Data Extraction, Categorization, and Analysis

Data extraction was executed using a standardized comparative matrix:

- Classical *Pūrvārūpa* items were extracted from Sanskrit treatises and translated into standardized clinical terms.
- Premonitory manifestations were categorized across five functional physiological domains: Neurological/Cephalic, Vasomotor/Thermal, Gastrointestinal/Metabolic, Sensory/Micro-vascular, and Cardiorespiratory.
- Parallel signs and symptoms of hypertension were identified within biomedical literature.
- Pathophysiological processes were triangulated across systems, correlating *Pitta-Rakta* vitiation, *Vātanulomana/Pratilomana* disruptions, and *Srotoduṣṭi* with vascular shear stress, endothelial dysfunction, sympathetic nervous system drive, and plasma volume changes.

ETIOLOGICAL PARALLELS (NIDĀNA VS. RISK FACTORS)

Ayurvedic etiology (*Nidāna*) posits that health depends on functional equilibrium among the three *Doṣas* (*Vāta*, *Pitta*, *Kapha*), seven *Dhātus* (tissues), and three *Malas* (waste products). Disease occurs when specific dietary, behavioral, environmental, or psycho-emotional factors disturb this balance. The etiology of Raktapitta closely parallels the established epidemiological risk factors for essential hypertension.



Dietary Etiology (*Āhāraj Ahetu*)

- Excessive Salt Consumption (*Lavana Atisevana*):** Classical texts list *Lavana*

Rasa (salty taste) as a direct cause of *Pitta Prakopa* and *Rakta Duṣṭi* (Charaka and Sharma, 2014). Excess salt increases the *Drava* (fluid) quality of blood, disrupting internal fluid distribution. In biomedical physiology, excess sodium chloride intake causes fluid retention, expands extracellular fluid volume, increases cardiac pre-load, and triggers systemic arterial stiffness (Whelton et al., 2018).

- **Sour, Pungent, and Acidic Foods (*Amla, Kaṭu, Kṣāra*):** Regular intake of sharp, fermented, sour, or highly spicy foods increases the *Uṣṇa* (heat) and *Tikṣṇa* (sharpness) attributes of blood. Biologically, highly acidic, chemically irritating, or heavily processed diets promote systemic low-grade vascular inflammation, elevate oxidative stress, and impair nitric oxide-mediated vasodilation (Carretero & Oparil, 2000).
- **Alcohol Consumption (*Madya Sevana*):** Classical texts highlight that alcohol possesses *Uṣṇa*, *Tikṣṇa*, *Rūkṣa* (dry), and *Vyavāyī* (swiftly spreading) properties that immediately aggravate *Pitta* and disturb *Rakta*. Modern epidemiological studies establish a direct link between chronic alcohol consumption and essential hypertension, driven by sympathetic nervous system stimulation, inhibition of vascular relaxation pathways, and stimulation of the renin-angiotensin-aldosterone system (RAAS) (Beevers et al., 2001).

Behavioral and Environmental Factors (*Vihāraj & Kālayukta Ahetu*)

- **Physical Overexertion (*Ati-Śrama*):** Overexertion increases internal friction, body heat, and metabolic waste production, disturbing *Vāta* and *Pitta*. In cardiovascular physiology, excessive or unconditioned physical exertion triggers elevated central adrenergic drive, increasing heart rate, stroke volume, and transient blood pressure spikes (Beevers et al., 2001).
- **Thermal Exposure (*Uṣṇa-Parisāṅga / Ātapa*):** Extended exposure to high atmospheric temperatures, direct sunlight (*Ātapa*), or working near open fires increases internal thermal load. Modern hemodynamic evaluations demonstrate that heat exposure forces cutaneous vasodilation, shifts central blood volume to peripheral capillary beds, alters heart rate, and can induce blood pressure fluctuations or epistaxis in vulnerable individuals (Basnyat et al., 2020).

Psychological Etiology (*Mānasik Ahetu*)

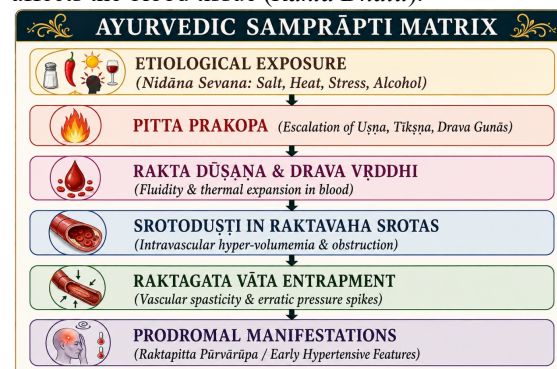
- **Anger, Grief, and Emotional Stress**

(*Krodha, Śoka, Bhaya*): Classical treatises explicitly emphasize *Krodha* (anger) as a potent psychological trigger for *Pitta* and *Rakta* vitiation. In modern psychophysiology, acute and chronic stress or anger triggers the hypothalamic-pituitary-adrenal (HPA) axis and the sympathetic nervous system, leading to sustained catecholamine (epinephrine and norepinephrine) release, systemic vasoconstriction, elevated pulse pressure, and endothelial shear stress (Carretero & Oparil, 2000).

PATHOPHYSIOLOGICAL PARALLELS (SAMPRĀPTI VS. PATHOPHYSIOLOGY)

Ayurvedic Pathogenesis (*Samprāpti*)

The *Samprāpti* (pathogenesis) of Raktapitta is a multi-step sequence that begins when predisposing etiological triggers (*Nidānas*) vitiate *Pitta Dosha*. Due to the natural affinity (*Āśraya-Āśrayī Bhāva*) between *Pitta* and *Rakta*, aggravated *Pitta* quickly affects the blood tissue (*Rakta Dhātu*).

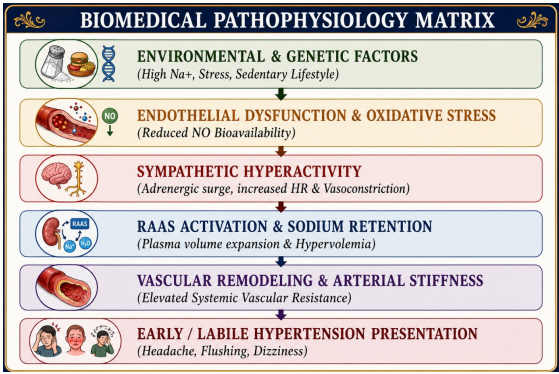


The enhanced *Uṣṇa* (heat) and *Tikṣṇa* (sharpness) properties of *Pitta* "melt" or liquefy adjacent tissue elements (*Māṃsa, Medas, Sveda*), pouring additional fluids into the circulatory channels (*Srotas Pūraṇa*). This sudden fluid influx increases blood volume (*Drava Vrddhi*) and intra-channel pressure. As this hyper-volumetric, heated blood circulates through the *Raktavaha Srotas*, it encounters underlying structural or functional obstructions (*Srotoduṣṭi*)—such as *Saṅga* or *Vimārga Gamana*.

Concurrently, if *Vāta Dosha* becomes entrapped within the blood vessels (*Raktagata Vātā*), it causes irregular vasospasms, wall tension, and pressure fluctuations (Singh & Kumar, 2025). This combined intravascular heat, excess volume, and altered movement generates the premonitory symptoms (*Pūrvārūpa*) prior to vessel rupture or overt bleeding.

Biomedical Pathophysiology of Hypertension

In contemporary cardiology, essential hypertension develops through complex interactions involving multi-organ pathways:



1. **Endothelial Dysfunction:** Loss of normal nitric oxide (NO) bioavailability, combined with increased endothelin-1 and reactive oxygen species (ROS), leads to impaired endothelium-dependent vasodilation and increased basal vascular tone (Carretero & Oparil, 2000).
2. **Sympathetic Nervous System Hyperactivity:** Heightened central sympathetic discharge increases cardiac output, elevates resting heart rate, and induces systemic arteriolar constriction (Beevers et al., 2001).
3. **Renin-Angiotensin-Aldosterone System (RAAS) Activation:** Angiotensin II triggers direct vasoconstriction and aldosterone release, causing renal sodium and water retention, expanding plasma volume, and elevating hydrostatic pressure (Whelton et al., 2018).
4. **Vascular Remodeling and Arterial Stiffness:** Chronic wall tension induces vascular smooth muscle hypertrophy, collagen deposition, and degradation of elastin fibers. This process reduces arterial compliance, elevates pulse wave velocity, and increases systemic vascular resistance (Sharma et al., 2024).

Comparative Mechanistic Mapping

Synthesizing classical Ayurvedic concepts with contemporary hemodynamic mechanisms reveals several parallel processes:

- **Pitta Uṣṇa/Tikṣṇa Expansion ↔ Endothelial Oxidative Stress & Vascular Inflammation:** The thermal, sharp qualities of vitiated Pitta map onto circulating reactive oxygen species, inflammatory cytokines (TNF- α , IL-6), and endothelial dysfunction that impair blood vessel health (Agrawal, 2021).
- **Drava Vṛddhi (Excess Fluidity/Volume) ↔ Plasma Volume Expansion & Intravascular Hydrostatic Pressure:** The influx of liquefied tissue fluids into the blood channels matches RAAS-mediated fluid retention, hypervolemia, and increased circulatory fluid volume (Sahu et al., 2015).

- **Raktagata Vāta (Entrapped Vāta in Blood) ↔ Increased Sympathetic Tone & Arterial Stiffness:** The erratic, contracting nature of *Vāta* localized in blood channels corresponds to elevated sympathetic vasoconstrictor tone, arterial stiffness, spastic vessel constriction, and fluctuating blood pressure readings (Singh & Kumar, 2025).

DETAILED COMPARATIVE ANALYSIS OF CLASSICAL PŪRVĀRŪPA

Classical treatises document specific prodromal symptoms (*Pūrvārūpa*) that warn of impending Raktapitta. This section provides a comparative analysis mapping classical Sanskrit descriptions against equivalent signs, symptoms, and physiological mechanisms in hypertension.

Analysis of Charaka Samhita Premonitory Manifestations

The *Charaka Samhitā* (*Cikitsā Sthāna* 4) provides an extensive description of prodromal signs (*Pūrvārūpa*) for *Lohitapitta* (Charaka and Sharma, 2014).

Comparative Analysis: Charaka Samhita Pūrvārūpa and Hypertensive Features

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
Anannābhilāṣa – Loss of appetite	Loss of appetite during acute stress or blood pressure surges	Systemic discomfort caused by elevated sympathetic nervous activity reducing GI motility
Bhuktasya Vidāhaḥ – Burning sensation	Postprandial gastric irritation, heartburn,	Pitta-mediated digestive distress

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
after meals	or dyspepsia	linked to stress-induced gastric hyperacidity
Śuktāmla Udgāra – Sour or acid belching	Acid reflux, eructation, and indigestion co-occurring with hypertension	Shared gastrointestinal dysfunction secondary to altered autonomic nervous system balance
Chhardi Vega – Nausea or vomiting tendency	Nausea and emetic urges during hypertensive surges	Elevated central intravascular pressure affecting the area postrema in the brainstem
Svarabhedha –	Vocal fatigue or	Systemic debility,

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
Hoarseness or change in voice	pitch alterations due to exertion	breathlessness, or laryngeal mucosal vascular congestion
Gātrasādana – Weakness, fatigue, or body heaviness	Generalized systemic fatigue, heaviness, and low physical stamina	Impaired tissue perfusion, increased arterial resistance, and cardiac overwork
Paridāha – Generalized or localized burning sensation	Systemic heat sensations, flushing, and warm skin	Cutaneous vasodilation driven by elevated blood flow and sympathetic hyperactivity
Mukhad Dhūmāgama –	Subjective oral dryness,	Central thermal distress and

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
Sensation of smoke emerging from the mouth	thermal discomfort, or heaviness in the head	head congestion caused by increased arterial pressure
Lohagandhitvā Āsyasva – Metallic or blood-like taste/odor in the mouth	Metallic taste, oral dysgeusia, or faint blood taste	Micro-vascular capillary leakage in the oral cavity hypertensive nasal congestion
Rakta-Pīta-Harita discolorations	Facial flushing, conjunctival redness, or skin erythema	Capillary hyper-perfusion, cutaneous vascular engorgement, and conjunctival injection
Āṅgavedanā – Generalized	Tension headaches, neck	Elevated baseline vascular

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
body aches and pain	stiffness, and generalized aching	tension and increased muscle tissue ischemia
Dreams of luminous red, yellow, or fiery objects	Disturbed sleep, vivid dreams, or insomnia	Psychological distress and central nervous system hyper-arousal

Analysis of Sushruta Samhita Premonitory Manifestations

The *Suśruta Samhitā* (Uttara Tantra 46) emphasizes thermal, upper respiratory, and olfactory prodromal features (Sushruta and Murthy, 2012).

Comparative Analysis: Sushruta Samhita Pūrvārūpa and Hypertensive Features

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
सदनम् (Sadanam) – Generalized debility,	Reduced energy, tiredness, and	Subclinical decline in stroke volume

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
weakness, or fatigue	exertional weakness	efficiency and elevated vascular resistance
शीतकामित्वम् (Śītakāmitvam) – Strong preference for cold environments, food, or water	Subjective heat intolerance and seeking cool environments during BP surges	Systemic thermal discomfort secondary to hyper-metabolism and peripheral vasodilation
कण्ठधूमायनम् (Kanthadhūmāvanam) – Sensation of smoke or heat in the throat	Throat burning, dryness, upper airway warmth, or central head heaviness	Micro-vascular hyper-perfusion and mucosal dryness in the pharyngeal passages
वमिः (Vamih) – Nausea or	Nausea and emesis	Sudden elevations

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
explicit vomiting episodes	during hypertensive urgency	in intracranial vascular pressure and central autonomic stimulation
लोहगन्धिनिःश्वासः (Lohagandhi Niḥśvāsaḥ) – Metallic or blood-like odor in breath	Metallic breath odor, subtle mucosal oozing, or epistaxis	Occult micro-extravasation from fragile capillary beds in the nasopharynx

Analysis of Ashtanga Hridaya Premonitory Manifestations

The *Aṣṭāṅga Hṛdayam* (Uttara Tantra 13) provides a detailed overview of cephalic, sensory, respiratory, and visual prodromal markers (Vagbhata and Murthy, 2018).

Comparative Analysis: Ashtanga Hridaya Pūrvārūpa and Hypertensive Features

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
Śirogurutva – Marked heaviness or fullness in the head	Morning occipital head fullness, pressure, or tension headache	Intracranial arterial distension, elevated central venous pressure, and altered autoregulation
Aruchi – Loss of taste or anorexia	Decreased appetite during stress or acute blood pressure elevation	Sympathetic inhibition of salivary secretions and gastrointestinal motility
Śītecchā – Craving cold applications, breezes, or cold fluids	Preference for cold environments during facial flushing or head warmth	Physiological compensation for systemic thermal stress and cutaneous

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
		hyper-perfusion
Dhūmaka / Amlaka – Smoky sensations, acid eructations, or heartburn	Acid reflux, epigastric burning, and chest/throat warmth	Increased intra-abdominal pressure and autonomic nervous system dysfunction
Chhardi – Nausea and emetic episodes	Nausea during hypertensive spikes or urgency	Central nervous system stimulation caused by elevated cerebral vascular pressure
Kāsa – Persistent dry cough	Non-productive cough during cardiovascular	Pulmonary capillary congestion or side

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
	acute stress	effects of anti-hypertensive therapies (e.g., ACE inhibitors)
Śvāsa – Exertional shortness of breath or dyspnea	Shortness of breath during exertion or acute stress	Increased left ventricular end-diastolic pressure and pulmonary venous congestion
Bhrama – Dizziness, giddiness, or vertiginous feelings	Lightheadedness, postural dizziness, or unstable balance	Altered cerebral autoregulation and transient changes in cerebral blood flow
Klama –	Lethargy,	Tissue

Pūrvārūpa (Premonitory Symptoms) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
Fatigue without prior physical exertion	exhaustion, and low physical energy	hypoperfusion caused by elevated systemic vascular resistance
Metallic/Foul breath odor	Metallic taste, altered taste perception, or breath odor	Subtle upper respiratory tract micro-hemorrhages or salivary alterations
Svarakṣaya – Weakness, cracking, or loss of voice	Weakened vocal projection or vocal fatigue during exertion	Laryngeal mucosal edema and systemic physical debility
Red/yellow discoloration & visual	Blurred vision, visual floaters, photopsia, or facial	hypertensive retinal micro-vascular changes,

Pūrvārūpa (Premonitory Symptom) of Raktapitta	Signs & Symptoms of Hypertension	Possible Similarity & Mechanism
distortions	flushing	retinal arteriolar narrowing, and facial hyperemia
Dreams of vivid colors or fiery objects	Restless sleep, nocturnal awakenings, or vivid dreams	Neuro-autonomic hyper-arousal and elevated sympathetic drive during sleep

SYSTEMIC COMPARATIVE SYNTHESIS & CLINICAL SPECTRUM

Categorizing classical prodromal signs (*Pūrvārūpa*) and modern hypertensive manifestations into functional anatomical domains reveals clear clinical patterns across physiological systems.

CLINICAL DOMAIN MATRIX		
Systemic Category	Classical Raktapitta Pūrvārūpa	Hypertensive Feature
 Cephalic / CNS	Śirogurutva, Bhrama, Murchā	Morning Headache, Vertigo
 Vasomotor/Thermal	Paridāha, Śīteccā, Dhūmāgama	Facial Flushing, Warmth
 Gastrointestinal	Anannābhilāsa, Vidāha, Chhardi	Nausea, Dyspepsia
 Sensory / Visual	Color Distortions, Metallic Breath	Blurred Vision, Epistaxis
 Cardiorespiratory	Śvāsa, Kāsa, Klama	Exertional Dyspnea

Cephalic and Central Nervous System Domain

- Ayurvedic Interpretation:** Classical

symptoms such as *Śirogurutva* (head heaviness), *Śiraḥśūla* (vascular headache), and *Bhrama* (dizziness/vertigo) reflect *Pitta* and *Vāta* driving blood upward (*Ūrdhva Gati*). This engorges the *Raktavaha Srotas* supplying the head.

- Biomedical Mechanics:** Morning occipital headaches, pressure sensations, and vertigo stem from altered cerebral autoregulation, high intravascular pulse pressure, and increased arterial wall tension in the cerebral circulation (Basnyat et al., 2020).

Vasomotor and Thermal Regulation Domain

- Ayurvedic Interpretation:** Manifestations like *Paridāha* (generalized burning), *Dhūmāgama* (feeling of smoke emerging from the body), and *Śīteccā* (desire for cold) indicate an elevation in the *Uṣṇa* (heat) property of *Pitta*, disturbing thermal regulation.
- Biomedical Mechanics:** Episodic facial flushing, heat intolerance, warm skin, and sudden sweating are direct results of central sympathetic discharge, elevated core thermal output, and cutaneous arteriolar vasodilation (Beevers et al., 2001).

Gastrointestinal and Metabolic Domain

- Ayurvedic Interpretation:** *Anannābhilāsa* (anorexia), *Bhuktasya Vidāhaḥ* (postprandial heartburn), *Śuktāmla Udgāra* (sour eructations), and *Chhardi Vega* (nausea) signal that vitiated *Pitta* has spread to the *Annavaha Srotas*, impairing digestive capacity (*Agni-Māndya*).
- Biomedical Mechanics:** Functional dyspepsia, hyperacidity, epigastric distress, and nausea in hypertensive patients are linked to autonomic imbalance—where high sympathetic activity slows GI motility and increases gastric acid secretion (Carretero & Oparil, 2000).

Sensory, Visual, and Micro-Vascular Domain

- Ayurvedic Interpretation:** Symptoms including visual color distortions (perceiving red, yellow, or green hues), *Lohagandhitvā* (metallic blood taste/breath odor), and mucosal dryness indicate *Rakta Duṣṭi* and tissue irritation within micro-channels.
- Biomedical Mechanics:** hypertensive retinopathy produces visual blurriness, floaters, and photopsia due to retinal arteriolar spasms, micro-aneurysms, or focal ischemia. Micro-extravasations from fragile capillaries in the nasal cavity (Kiesselbach's plexus) or oral mucosa explain both metallic dysgeusia and epistaxis (Basnyat et al., 2020).

Cardiorespiratory Domain

- **Ayurvedic Interpretation:** Śvāsa (breathlessness/exertional dyspnea), Kāsa (cough), and Gātrasādana/Klāma (unexplained fatigue) indicate functional strain on both the Prāṇavaha and Raktavaha Srotas.
- **Biomedical Mechanics:** Exertional shortness of breath, diminished exercise tolerance, and dry cough stem from elevated left ventricular end-diastolic pressure, reduced myocardial compliance, and pulmonary venous congestion (Whelton et al., 2018).

INTEGRATIVE FRAMEWORK AND CONCEPTUAL DIAGNOSTIC IMPLICATIONS

Connecting the prodromal phase (*Pūrvārūpa*) of Raktapitta with hypertensive states yields a useful framework for screening, prevention, and integrative care.



8.1 Risk Stratification & Clinical Screening

Essential hypertension is typically identified through opportunistic routine blood pressure measurements. However, patients frequently experience episodic, non-specific symptoms before fulfilling formal diagnostic criteria for sustained hypertension. Identifying the *Pūrvārūpa* symptom cluster—head heaviness (*Śiroguruṭva*), systemic burning (*Paridāha*), lightheadedness (*Bhrama*), and metallic taste (*Lohagandhitvā*)—gives clinicians a clinical risk model. Recognizing these signs can prompt earlier screening with Ambulatory Blood Pressure Monitoring (ABPM) or home BP tracking, catching vascular dysfunction before permanent target-organ damage occurs.

8.2 Primary Prevention via Etiological Avoidance (Nidāna Parivarjana)

Both Ayurvedic medicine and modern cardiology emphasize eliminating underlying causes as the primary step in disease management:

- **Dietary Management:** Reducing excess

Lavana (salty), sour, and spicy foods while avoiding alcohol aligns directly with the evidence-based DASH (Dietary Approaches to Stop Hypertension) diet (Whelton et al., 2018).

- **Behavioral Management:** Modifying habits to avoid physical overexertion (*Ati-Śrama*) and excessive direct heat exposure (*Uṣṇa-Parisaṅga*) reduces sympathetic surges and acute vascular wall stress.
- **Psycho-Emotional Regulation:** Addressing stress and anger (*Krodha*) through mind-body techniques (*Yogāsana*, *Prāṇāyāma*, and *Dhyāna*) lowers central sympathetic drive, reduces HPA-axis activation, and supports healthy endothelial function (Carretero & Oparil, 2000).

Integrative Therapeutic Strategies

Understanding hypertension as a state of *Pitta-Rakta Duṣṭi* and *Raktagata Vātā* suggests several complementary, integrative treatment options:

Integrative Therapeutic Strategies & Mechanisms

Therapeutic Strategy	Primary Botanical / Modality	Classical Mechanism	Contemporary Biological Effect
Pitta-Rakta Śamana (Cooling/ Soothing)	<i>Guḍūcī</i> (<i>Tinospora cordifolia</i>), <i>Āmalakī</i> (<i>Emblica officinalis</i>)	Clears excess <i>Uṣṇa</i> and <i>Tikṣṇa</i> attributes from blood	Reduces oxidative stress, lowers pro-inflammatory cytokines, and supports endothelial

Therapeutic Strategy	Primary Botanical / Modality	Classical Mechanism	Contemporary Biological Effect
			repair
Vascular Tone Regulation (<i>Raktagata Vātā</i>)	<i>Sarpagandhā</i> (<i>Rauvolfia serpentina</i>), <i>Arjuna</i> (<i>Terminalia arjuna</i>)	Pacifies hyperactive <i>Vāta</i> in blood vessels	Inhibits central adrenergic discharge, promotes vasodilation, and improves cardiac output
Channel Pacification (<i>Srotosodhana</i>)	<i>Manjiṣṭhā</i> (<i>Rubiacordifolia</i>), <i>Punarnavā</i> (<i>Boerhavia diffusa</i>)	Removes obstruction (<i>Sāṅga</i>) and promotes micro-channel	Acts as a natural mild diuretic, reduces fluid retention, and improves

Therapeutic Strategy	Primary Botanical / Modality	Classical Mechanism	Contemporary Biological Effect
		flow	plasma viscosity
Mind-Body Modulation	<i>Prāṇāyāma</i> (<i>Anuloma Viloma</i> , <i>Śītalī</i>), <i>Dhyāna</i>	Soothes <i>Mānasa</i> <i>Pitta</i> and pacifies elevated <i>Prāṇa Vāyu</i>	Enhances vagal tone, lowers heart rate variability stress index, and reduces blood pressure

CONCLUSION

This review demonstrates a clear conceptual and clinical correlation between the classical premonitory symptoms (*Pūrvārūpa*) of Raktapitta and the manifestations of essential hypertension. The shared etiological triggers—including high salt intake (*Lavaṇa*), acute anger/stress (*Krodha*), alcohol consumption (*Madya*), excessive heat exposure (*Uṣṇa-Parisaṅga*), and physical overexertion (*Ati-Śrama*)—highlight common underlying drivers across both systems. Pathophysiologically, the classical Ayurvedic paradigm of *Pitta-Rakta Duṣṭi* and *Raktagata Vātā*—characterized by increased heat, fluidity, and pressure within the *Raktavaha Srotas*—aligns closely with modern concepts of endothelial dysfunction, hypervolemia, sympathetic hyperactivity, and increased systemic vascular

resistance.

Recognizing this clinical overlap provides an integrative framework for diagnostic screening, targeted primary prevention through cause avoidance (*Nidāna Parivarjana*), and combined therapeutic strategies for cardiovascular management.

hypertension: The pathophysiology of hypertension. *BMJ*. 2001;322(7291):912-916.

REFERENCES

1. Charaka, Sharma PV, editor. Charaka Samhita - Text with English Translation & Critical Exposition Based on Chakrapani Datta's Ayurveda Dipika. Varanasi: Chaukhambha Orientalia; 2014.
2. Sushruta, Srikantha Murthy KR, editor. Sushruta Samhita - English Translation of Text and Dalhana's Commentary. Varanasi: Chaukhambha Orientalia; 2012.
3. Vagbhata, Murthy Srikantha KR, editor. Ashtanga Hridaya - Text, Translation & Commentary. Varanasi: Chaukhambha Krishnadas Academy; 2018.
4. Singh A, Kumar R. Understanding hypertension through the lens of Raktagata Vata: An integrative review. *Int J Res Ayurveda Pharm*. 2025;16(1):22-29.
5. Sharma M, Patel RK, Deshpande S. Raktagata Vata: A conceptual analysis with reference to vascular disorders. *J Indian Syst Med*. 2024;12(2):85-92.
6. Nadakattin S, Rao P, Kumbar V. A critical review of Raktapitta with special reference to its contemporary perspective. *J Ayurveda Integr Med Sci*. 2020;5(2):52-58.
7. Agrawal A. Conceptual study of Rakta Dushti and its role in systemic diseases. *Int J Ayurvedic Med*. 2021;12(3):456-462.
8. Sahu PK, Mishra S, Patnaik L. A conceptual review of Raktadushti: Etiopathogenesis and clinical relevance. *Ayu*. 2015;36(4):491-498.
9. Gajera D, Prajapati P, Chauhan V. Conceptual analysis of Rakta Dhatu and its role in circulatory disorders. *J Res Ayurvedic Sci*. 2024;8(1):31-38.
10. Basnyat B, Cumbo TA, Edelman ER. Symptoms and clinical presentation of hypertensive urgency and emergency. *J Clin Hypertens*. 2020;22(8):1323-1330.
11. Whelton PK, Carey RM, Aronow WS, Casey DE, Collins KJ, Himmelfarb CD, et al. 2017 ACC/AHA guideline for the prevention, detection, evaluation, and management of high blood pressure in adults. *Hypertension*. 2018;71(6):e13-e115.
12. Carretero OA, Oparil S. Essential hypertension. *N Engl J Med*. 2000;342(2):91-104.
13. Beevers G, Lip GYH, O'Brien E. ABC of