

Comparative Clinical Study of Vata, Pitta, and Kapha Predominance in Hypertensive Individual: A Review-Based Case Study Paper

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Abstract

Hypertension is one of the most important modifiable risk factors for cardiovascular, cerebrovascular, renal, and metabolic morbidity. Although modern clinical guidelines define hypertension primarily through repeated blood pressure measurement and cardiovascular risk assessment, patient-to-patient variability in clinical presentation, lifestyle background, stress reactivity, metabolic status, body habitus, and therapeutic response remains a major challenge in long-term management. Ayurveda explains such inter-individual variability through the concepts of Prakriti and Dosha predominance, principally Vata, Pitta, and Kapha. The present review-based case study paper examines the comparative clinical relevance of Vata, Pitta, and Kapha predominance in hypertensive individuals using a structured academic format. The paper integrates contemporary hypertension literature with Ayurvedic constitutional theory, published Prakriti-related biomedical studies, and a proposed clinical assessment framework. The review suggests that Vata predominance may be clinically interpreted in relation to autonomic variability, anxiety, irregular lifestyle, sleep disturbance, and fluctuating blood pressure; Pitta predominance may correlate with heat, irritability, inflammatory tendency, strong metabolic drive, and stress-related vascular response; and Kapha predominance may be associated with obesity, sedentary behavior, dyslipidemia, insulin resistance, fluid retention, and sustained elevation of blood pressure. The study further proposes a systematic clinical model for evaluating hypertensive individuals according to conventional risk factors and Ayurvedic constitutional predominance. This integrative approach does not replace evidence-based hypertension diagnosis or pharmacological care, but may improve individualized counselling, lifestyle planning, diet selection, stress management, and preventive cardiometabolic care. Larger observational and interventional studies are required to validate the clinical significance of Dosha predominance in hypertension.

Keywords: Hypertension; Vata; Pitta; Kapha; Prakriti; Ayurveda; cardiovascular risk; case study; constitutional medicine; personalized medicine.

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Introduction

Hypertension is a chronic clinical condition characterized by persistently elevated arterial blood pressure and is widely recognized as a leading preventable cause of premature cardiovascular morbidity and mortality. Modern guidelines emphasize accurate blood pressure measurement, cardiovascular risk stratification, lifestyle modification, and timely pharmacological therapy for the prevention of stroke, myocardial infarction, heart failure, chronic kidney disease, and vascular complications [1]. Global epidemiological evidence shows that the number of adults aged 30–79 years living with hypertension has increased substantially over recent decades, reflecting demographic transition, urbanization, sedentary lifestyle, dietary changes, obesity, and inadequate detection and control in many countries [2]. International and national guidelines recommend standardized diagnostic thresholds, repeated office and out-of-office blood pressure confirmation, risk-based treatment planning, and long-term follow-up [3,4].

Despite major advances in hypertension management, clinical practice continues to face important gaps. Many individuals remain undiagnosed, untreated, undertreated, or poorly controlled. Even when two individuals have similar blood pressure readings, their underlying clinical pattern may differ markedly. One patient may be lean, anxious, sleep-deprived, and prone to episodic blood pressure fluctuation; another may be irritable, heat-intolerant, and stress-reactive; while another may be obese, sedentary, dyslipidemic, and metabolically sluggish. Conventional medicine addresses this variability through age, sex, comorbidities, body mass index, renal function, diabetes status, salt sensitivity, sympathetic activation, and vascular risk profiling. However, additional person-centered frameworks may be useful for lifestyle counselling and long-term prevention when applied cautiously and ethically.

Ayurveda, the traditional system of medicine of India, provides a constitutional understanding of health through the concept of Prakriti. Prakriti refers to an individual's inherent physical, physiological, psychological, and functional constitution. It is traditionally determined by the relative predominance of Vata, Pitta, and Kapha Doshas. Vata is associated with movement, nervous regulation, dryness, lightness, irregularity, and rapid change; Pitta with heat, metabolism, sharpness, transformation, and intensity; and Kapha with heaviness, stability, lubrication, structure, and accumulation. Classical Ayurvedic texts describe individual differences in body build, appetite, sleep, temperament, strength, disease tendency, and response to diet and environment [13–15]. In hypertension, these

constitutional patterns may provide a useful clinical lens to understand lifestyle triggers, symptom tendencies, and preventive strategies.

Modern hypertension guidelines have evolved toward increasingly individualized treatment while retaining standardized diagnostic and therapeutic principles. The 2023 European Society of Hypertension guidelines, the 2017 ACC/AHA guideline, and other global statements emphasize risk-based management, lifestyle intervention, combination therapy when needed, and attention to comorbidities [5,6]. Pathophysiologically, hypertension is multifactorial and involves increased peripheral vascular resistance, renal sodium handling, sympathetic nervous system activation, renin–angiotensin–aldosterone system dysregulation, endothelial dysfunction, oxidative stress, arterial stiffness, obesity, insulin resistance, and genetic predisposition [7]. These mechanisms do not operate uniformly in all patients. Therefore, a comparative constitutional review may contribute to a more person-centered understanding of hypertensive individuals.

The objective of this paper is to prepare a standard and systematic review-based case study on the comparative clinical study of Vata, Pitta, and Kapha predominance in hypertensive individuals.

The paper aims to:

1. summarize modern and Ayurvedic concepts relevant to hypertension;
2. review published evidence on Prakriti, metabolism, cardiovascular risk, and hypertension;
3. propose a structured clinical assessment model for hypertensive individuals according to Dosha predominance;
4. present tables and graph-based summaries for academic use; and
5. identify research gaps for future clinical validation.

2. Literature Review

2.1 Modern biomedical understanding of hypertension
Blood pressure is determined by the relationship between cardiac output and systemic vascular resistance. Persistent elevation of blood pressure may arise from altered vascular tone, arterial stiffness, renal sodium retention, neurohormonal activation, endothelial dysfunction, and maladaptive structural changes in the heart, kidney, brain, and blood vessels [7]. Large-scale prospective evidence has demonstrated a continuous relationship between usual blood pressure and vascular mortality, indicating that risk increases progressively with higher systolic and diastolic pressure [8]. Hypertension is therefore not merely a numerical abnormality but a chronic vascular risk state.

The global burden of hypertension is unequally distributed. Population studies show large disparities in awareness, treatment, and control across countries and income groups [9]. In India, hypertension prevalence has been reported as a major public health concern, with considerable rural–urban variation, low awareness, and suboptimal control [10]. The global burden attributable to elevated systolic blood pressure includes cardiovascular deaths, stroke, ischemic heart disease, renal disease, and disability-adjusted life-years lost [11]. Public health packages such as WHO HEARTS emphasize standardized protocols, team-based care, access to essential medicines, lifestyle modification, and primary-care strengthening [12].

2.2 Ayurvedic understanding of Dosha and Prakriti

Ayurveda explains human constitution through Prakriti, which is determined at conception and remains broadly stable throughout life. The three Doshas Vata, Pitta, and Kapha represent functional principles rather than isolated anatomical entities. Vata governs movement, nerve impulses, respiration, circulation, elimination, and mental activity. Pitta governs digestion, metabolism, heat, enzymatic transformation, perception, and intensity. Kapha governs structure, stability, lubrication, immunity, endurance, and tissue nourishment [13–15].

In the context of hypertension, no single classical disease term exactly corresponds to modern essential hypertension. Ayurvedic scholars have interpreted hypertension through concepts such as Raktagata Vata, Vyana Vata Dushti, Prana Vata involvement, Sadhaka Pitta disturbance, Avalambaka Kapha imbalance, Rakta Dushti, Meda involvement, Avarana, and disturbance of Rasa–Rakta circulation. Menon and Shukla proposed that hypertension may be understood as an early pathological process involving disturbed Doshas, circulation, and vascular function rather than as a single classical disease entity [16]. This is important because many hypertensive individuals remain asymptomatic for years, similar to the concept that early Dosha disturbance may precede obvious disease manifestation.

2.3 Prakriti and modern biological correlates

Recent scientific studies have attempted to explore whether Ayurvedic Prakriti has measurable biological correlates. Prasher et al. reported differences in genome expression and biochemical parameters among extreme constitutional types, suggesting that Prakriti classification may reflect aspects of biological individuality [17]. Govindaraj et al. investigated genome-wide markers and reported associations between genomic variation and Prakriti categories,

proposing a possible bridge between traditional constitutional classification and modern genomics [18]. Ghodke et al. examined CYP2C19 polymorphism and metabolic variability in relation to Prakriti, suggesting that constitutional types may differ in drug metabolism-related traits [19].

Dey and Pahwa reviewed evidence linking Prakriti with metabolism, chronic disease susceptibility, and genotypes, highlighting its possible relevance for preventive and personalized health strategies [20]. Mahalle et al. studied the association of Ayurvedic constitutional type with cardiovascular risk factors, inflammatory markers, and insulin resistance in patients with coronary artery disease, reporting that constitutional assessment may be associated with cardiometabolic risk clustering [21]. Wallace et al. also discussed Ayurgenomics as a potential bridge between Ayurvedic constitution and modern personalized medicine [22]. These studies do not establish Prakriti as a replacement for biomedical risk assessment, but they support further exploration of constitutional phenotyping in chronic disease prevention.

2.4 Prakriti assessment tools and clinical standardization

For any comparative clinical study, standardized assessment of Prakriti is essential. Traditional assessment by experienced Ayurvedic physicians includes body frame, skin, appetite, digestion, sleep, speech, mental tendencies, thermal preference, strength, bowel habits, and disease susceptibility. Modern research requires reproducible tools. Singh et al. described development of a standardized Prakriti assessment scale based on Ayurvedic texts and clinical validation principles [23]. The Central Council for Research in Ayurvedic Sciences has also developed structured Prakriti assessment resources to improve standardization and inter-rater reliability [24]. Such tools are necessary to reduce subjective variation and make clinical research more reliable.

2.5 Safety and integrative care considerations

Ayurveda is widely used as a traditional health system, but integration with modern hypertension care requires safety, transparency, and evidence-based decision-making. Public health agencies emphasize that Ayurvedic products, particularly those containing minerals or metals, may pose safety concerns if quality control is inadequate, and patients using antihypertensive medication should not discontinue prescribed treatment without medical supervision [25]. Recent reviews of Ayurvedic interventions for essential hypertension suggest potential benefit in

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selected settings, but they also highlight heterogeneity, variable study quality, and the need for robust randomized trials [26]. Some clinical trials have evaluated Ayurvedic formulations such as Brahmi Vati and Sarpagandha Ghana Vati in essential hypertension, but broader validation and pharmacovigilance are required [27].

2.6 Rationale for comparative Dosha-based study in hypertension

A comparative clinical study of Vata, Pitta, and Kapha predominance in hypertensive individuals is scientifically relevant for four reasons. First, hypertension is multifactorial and shows patient-level heterogeneity. Second, Dosha predominance provides a structured traditional model for classifying differences in body habitus, metabolic activity, stress reactivity, sleep, and lifestyle tendencies. Third, cardiometabolic risk factors such as obesity, insulin resistance, dyslipidemia, inflammatory tendency, and autonomic imbalance may be mapped cautiously to constitutional profiles. Fourth, individualized lifestyle advice may improve adherence when recommendations are aligned with the patient's constitution, preferences, and risk pattern.

3. Materials and Methods

3.1 Study design

This paper is designed as a review-based clinical case study framework. It does not present new patient-level experimental data. Instead, it synthesizes modern hypertension literature, Ayurvedic constitutional theory, Prakriti-related biomedical studies, and published clinical evidence to propose a structured comparative model for assessing Vata, Pitta, and Kapha predominance in hypertensive individuals.

The structure follows standard academic paper sections: Abstract, Introduction, Literature Review, Materials and Methods, Results and Interpretative Synthesis, Discussion, Conclusion, and References. The proposed case-study reporting approach is informed by clinical case reporting principles, observational research reporting standards, and review-reporting guidance [28–30].

3.2 Search strategy

A narrative literature search framework was used. The conceptual search terms included: “hypertension,” “blood pressure,” “essential hypertension,” “cardiovascular risk,” “Ayurveda,” “Prakriti,” “Vata,” “Pitta,” “Kapha,” “Raktagata Vata,” “Ayurgenomics,” “constitutional type,” “cardiometabolic risk,” “insulin resistance,” and “personalized medicine.”

The literature was grouped into five domains:

1. Modern hypertension guidelines;
2. epidemiology and disease burden;
3. hypertension pathophysiology;
4. Ayurvedic interpretation of hypertension; and
5. Prakriti-related biomedical studies.

3.3 Inclusion criteria

The included literature comprised:

- International and Indian hypertension guidelines;
- Major epidemiological studies on hypertension burden;
- Peer-reviewed reviews on hypertension pathophysiology;
- Classical Ayurvedic references relevant to Dosha, Prakriti, circulation, and disease causation;
- Studies on Prakriti, genomics, metabolism, cardiovascular risk, or inflammatory markers;
- Clinical reviews or trials of Ayurvedic interventions in hypertension; and
- Methodological reporting guidelines relevant to case studies, observational studies, and review papers.

3.4 Exclusion criteria

The following were excluded:

- Non-academic popular articles without scientific relevance;
- Unverified claims of cure;
- Studies not related to hypertension, cardiovascular risk, Prakriti, or Ayurveda;
- Duplicated references;
- Anecdotal reports without sufficient clinical or conceptual detail; and
- Sources promoting replacement of standard antihypertensive treatment without evidence.

3.5 Proposed clinical case-study population

For a future clinical study based on this review, the recommended population would include adult hypertensive individuals aged 30–70 years with

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confirmed elevated blood pressure according to standard clinical guidelines. Patients would be classified into Vata-predominant, Pitta-predominant, and Kapha-predominant groups using a validated Prakriti assessment tool administered by trained Ayurvedic clinicians. Conventional clinical parameters would be recorded, including systolic blood pressure, diastolic blood pressure, body mass index, waist circumference, fasting blood glucose, lipid profile, renal function, sleep quality, stress score, physical activity, diet pattern, family history, smoking, alcohol intake, and medication use.

3.6 Outcome domains for comparative assessment

The proposed comparative domains include:

- blood pressure pattern: sustained, fluctuating, stress-related, or morning surge;
- body habitus: lean, moderate, overweight, or obese;
- metabolic profile: glucose, lipids, uric acid, insulin resistance markers;
- psychological profile: anxiety, irritability, lethargy, emotional reactivity;
- lifestyle profile: irregular routine, excessive work intensity, sedentary habit;
- sleep profile: light sleep, disturbed sleep, moderate sleep, excessive sleep;
- dietary profile: salt intake, heavy food, spicy food, irregular meals, overeating;
- target-organ risk: renal, cardiac, vascular, neurological, and ocular markers;
- constitutional interpretation: Vata, Pitta, Kapha, or mixed predominance.

3.7 Ethical statement

This manuscript is a review and proposed clinical framework. It does not disclose individual patient identity, does not report original patient data, and does not claim clinical efficacy of any treatment. Any future clinical study should obtain institutional ethics committee approval, informed consent, and appropriate registration where applicable.

4. Interpretative Synthesis

4.1 Comparative clinical profile of Dosha predominance in hypertensive individuals

Table 1. Comparative clinical interpretation of Vata, Pitta, and Kapha predominance in hypertension

Parameter	Vata-predominant hypertensive individual	Pitta-predominant hypertensive individual	Kapha-predominant hypertensive individual
Body build	Lean, thin, variable weight	Moderate build, warm body, good appetite	Heavy build, tendency to weight gain
Blood pressure pattern	Fluctuating, stress-sensitive, variable readings	Reactive rise with anger, heat, workload, intensity	Sustained elevation, often associated with obesity
Pulse tendency	Irregular, fast, variable	Sharp, forceful, bounding	Slow, full, heavy
Sleep	Light, disturbed, insomnia tendency	Moderate but disturbed by stress or heat	Deep, prolonged, lethargic
Appetite	Irregular, gas, bloating	Strong appetite, acidity tendency	Slow digestion, heaviness
Mental traits	Anxiety, fear, restlessness	Irritability, ambition, impatience	Calmness, inertia, attachment, low motivation
Lifestyle risk	Irregular meals, sleep deprivation, travel, overthinking	Excess work, spicy food, anger, competition	Sedentary routine, overeating, day sleep
Biomedical correlation	Sympathetic variability, stress response, autonomic arousal	Inflammatory tendency, heat, vascular reactivity	Obesity, insulin resistance, dyslipidemia
Preventive emphasis	Routine, sleep, grounding diet, stress calming	Cooling diet, anger control, moderation	Weight reduction, activity, light diet

4.2 Vata predominance in hypertensive individuals

Vata-predominant hypertensive individuals may present with fluctuating blood pressure rather than consistently sustained elevation. Their readings may increase during anxiety, sleep deprivation, travel, emotional stress, pain, fasting, excessive work, or irregular daily routine. Classical Vata qualities such as lightness, dryness, mobility, subtlety, and irregularity may be clinically interpreted as variability in sleep, appetite, bowel movement, mood, and physiological rhythm. In biomedical terms, this pattern may be compared with sympathetic nervous system activation, autonomic instability, stress reactivity, and labile hypertension.

Such individuals may complain of palpitations, nervousness, tremulousness, headache, dryness, constipation, insomnia, worry, and inability to relax. Their dietary habits may include irregular meals, low nourishment, excessive tea or coffee, fasting, or disturbed meal timing. The clinical focus in such cases is not only reduction of blood pressure but stabilization of rhythm: regular sleep, fixed meal timing, reduction of stimulants, breathing practices, gentle exercise, and psychological reassurance.

4.3 Pitta predominance in hypertensive individuals

Pitta-predominant hypertensive individuals may show a pattern associated with heat, intensity, ambition, irritability, anger, acidity, sweating, strong appetite, and stress-driven blood pressure elevation. They may report headaches with heat sensation, facial flushing, eye burning, acidity, impatience, and intolerance to delay or criticism. Their blood pressure may rise during professional stress, conflict, competition, hot climate, excessive spicy food, alcohol, or sleep deprivation.

From a biomedical viewpoint, this pattern may be interpreted through vascular reactivity, inflammatory burden, oxidative stress, endothelial dysfunction, stress hormones, and high-intensity lifestyle patterns. Pitta predominance does not mean that inflammation is proven in every such patient, but it provides a clinical hypothesis for assessment. Relevant investigations may include lipid profile, liver function, inflammatory markers where indicated, and assessment of stress, diet, alcohol intake, and sleep.

4.4 Kapha predominance in hypertensive individuals

Kapha-predominant hypertensive individuals may show sustained blood pressure elevation associated with heaviness, lethargy, weight gain, sedentary lifestyle, excessive sleep, slow digestion, edema tendency, high-calorie diet, and metabolic risk clustering. This pattern may correspond to obesity, insulin resistance, dyslipidemia, obstructive sleep

apnea risk, salt sensitivity, and chronic low-grade inflammation.

Such individuals may have fewer subjective symptoms despite significant risk. They may report heaviness of body, dull headache, excessive sleep, reduced physical activity, swelling, breathlessness on exertion, snoring, or family history of diabetes and hypertension. Management emphasis includes weight reduction, salt restriction, regular physical activity, light diet, improved digestion, reduction of day sleep, and close monitoring of metabolic parameters.

5. Tables

Table 2. Modern hypertension classification and relevance to clinical assessment

Category	Systolic BP	Diastolic BP	Clinical relevance
Normal	<120 mmHg	<80 mmHg	Preventive lifestyle counselling
Elevated / high-normal	120–129 or 130–139 depending on guideline	<80 or 85–89 depending on guideline	Risk assessment and lifestyle intervention
Grade/stage 1 hypertension	≥130 or ≥140 depending on guideline	≥80 or ≥90 depending on guideline	Confirm diagnosis and assess total risk
Grade/stage 2 hypertension	Higher sustained readings	Higher sustained readings	Usually requires drug therapy and close follow-up
Severe hypertension	≥180	≥120	Urgent clinical evaluation for emergency symptoms

Note: Diagnostic thresholds differ between guidelines. Clinical diagnosis should follow the guideline applicable to the healthcare setting and must be based on repeated validated measurements.

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Table 3. Proposed case record form for Dosha-based hypertension assessment

Domain	Clinical variables to record	Relevance
Demographic profile	Age, sex, occupation, residence	Baseline risk context
Blood pressure	Office BP, home BP, ambulatory BP if available	Diagnosis and pattern
Anthropometry	Weight, BMI, waist circumference	Obesity and metabolic risk
Laboratory tests	Fasting glucose, HbA1c, lipid profile, creatinine, electrolytes	Cardiometabolic and renal risk
Lifestyle	Diet, salt intake, exercise, sleep, tobacco, alcohol	Modifiable risk
Psychological factors	Stress, anger, anxiety, emotional reactivity	Vata/Pitta pattern assessment
Ayurvedic assessment	Prakriti, Vikriti, Agni, Koshtha, Nidra, Bala	Constitutional interpretation
Medication history	Antihypertensives, adherence, adverse effects	Safety and treatment continuity
Target organ screening	ECG, urine albumin, eye check, renal function where indicated	Complication prevention

Table 4. Comparative management emphasis according to Dosha predominance

Predominance	Main clinical concern	Lifestyle priority	Diet priority	Monitoring priority
Vata	BP fluctuation, anxiety, insomnia	Regular routine, adequate sleep, calming	Warm, regular, nourishing, less stimulant intake	Home BP variability, sleep, stress

Predominance	Main clinical concern	Lifestyle priority	Diet priority	Monitoring priority
		practices		
Pitta	Reactivity, anger, heat, acidity	Moderation, cooling schedule, conflict control	Less spicy, less fried, less alcohol, cooling foods	Stress BP rise, acidity, liver/metabolic profile
Kapha	Obesity, lethargy, metabolic syndrome	Exercise, weight loss, reduced sitting time	Light, low salt, low sugar, portion control	BMI, waist, lipids, glucose, sleep apnea risk

Table 5. Literature evidence map

Evidence domain	Main finding	Relevance to present paper
Hypertension guidelines	Standardized diagnosis and treatment reduce risk	Dosha assessment must not replace guideline-based care
Epidemiology	Hypertension burden is high and increasing	Supports need for prevention and individualized lifestyle care
Pathophysiology	Multiple mechanisms contribute to hypertension	Allows constitutional hypothesis generation
Prakriti genomics	Biological differences reported between Prakriti groups	Supports research potential of constitutional phenotyping
Cardiometabolic Prakriti studies	Associations reported with risk factors and inflammation	Supports comparative study design

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Evidence domain	Main finding	Relevance to present paper
Ayurvedic hypertension reviews	Hypertension interpreted through Vata, Pitta, Kapha, Rakta, and Avarana	Provides conceptual foundation

6. Proposed Clinical Case Study Model

A standard case study for this topic may be designed as follows:

6.1 Case selection

Adult hypertensive individuals attending an outpatient clinic may be screened. Diagnosis should be confirmed using standard blood pressure measurement protocols. Patients with secondary hypertension, pregnancy-induced hypertension, severe renal failure, acute cardiovascular events, or incomplete data may be excluded unless separately studied.

6.2 Grouping

Participants may be grouped as:

- Group A: Vata-predominant hypertensive individuals;
- Group B: Pitta-predominant hypertensive individuals;
- Group C: Kapha-predominant hypertensive individuals.

Mixed Prakriti cases may either be excluded for initial clarity or analyzed separately as Vata-Pitta, Pitta-Kapha, Vata-Kapha, and Sama Prakriti.

6.3 Variables

Primary variables may include systolic blood pressure, diastolic blood pressure, pulse pressure, home blood pressure variability, and antihypertensive medication status. Secondary variables may include BMI, waist circumference, lipid profile, fasting glucose, HbA1c, serum creatinine, sleep score, stress score, physical activity score, dietary salt intake, and quality-of-life score.

6.4 Statistical analysis

Descriptive statistics may be used for baseline variables. ANOVA or Kruskal–Wallis test may compare continuous variables across Dosha groups. Chi-square test may compare categorical variables. Multivariable regression may assess whether Dosha predominance is independently associated with blood pressure pattern or metabolic risk after adjustment for age, sex, BMI, medication use, diet, and physical

activity. Repeated-measures analysis may be used if follow-up data are collected.

6.5 Expected clinical hypotheses

The following hypotheses may be tested:

1. Vata-predominant hypertensive individuals show greater blood pressure variability and higher stress/sleep disturbance scores.
2. Pitta-predominant hypertensive individuals show higher stress reactivity, acidity/heat-related complaints, and inflammatory tendency.
3. Kapha-predominant hypertensive individuals show higher BMI, waist circumference, dyslipidemia, insulin resistance, and sustained blood pressure elevation.
4. Constitution-specific counselling improves adherence and lifestyle outcomes compared with general advice.

7. Conclusion

Hypertension is a complex chronic disorder with major public health significance and wide patient-to-patient variability. Modern clinical guidelines provide essential standards for diagnosis, risk stratification, pharmacological treatment, and follow-up. Ayurveda adds a constitutional perspective through Vata, Pitta, and Kapha predominance, which may help interpret individual differences in lifestyle risk, stress response, body habitus, metabolic tendency, sleep pattern, and clinical presentation.

The comparative review suggests that Vata predominance may be associated with fluctuating blood pressure, anxiety, insomnia, and irregular lifestyle; Pitta predominance with stress reactivity, heat, irritability, acidity, and vascular intensity; and Kapha predominance with obesity, lethargy, dyslipidemia, insulin resistance, and sustained hypertension. These interpretations should be considered as clinical hypotheses rather than proven diagnostic categories.

A systematic Dosha-based assessment, when combined with standard biomedical evaluation, may support personalized counselling, better patient engagement, preventive lifestyle planning, and integrative management. However, antihypertensive medication, emergency care, and complication screening must follow established medical guidelines. Future clinical studies should validate Prakriti assessment tools, compare objective biomarkers across Dosha groups, and evaluate whether

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constitution-specific interventions improve blood pressure control and cardiovascular risk reduction.

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