



Psychosomatic Pathogenesis Of Hypertension: Role Of Manas Doshas And Sharira Doshas: A Review Article

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Abstract

Hypertension is a multifactorial disease with psychosomatic origin, where both psychological and physiological components interplay in its pathogenesis. From an Ayurvedic perspective, it is not described as a separate disease but can be understood under the concepts of Ucchhṛita Raktacāpa, Raktavaha Srotoduṣṭi, and Manasika Bhāva-vikāra. The imbalance of Manas Doṣhas (Rājāḥ and Tamah) leads to maladaptive stress responses, which disturb Śarīra Doṣhas—primarily Vāta and Pitta—resulting in vascular dysfunction and elevated blood pressure. This review aims to analyze the psychosomatic basis of hypertension with special reference to the interaction of Manas Doṣhas and Śarīra Doṣhas.

Keywords

Hypertension, Psychosomatic Pathogenesis, Manas Doṣhas, Vāta, Pitta, Rajas, Tamas, Ayurveda.

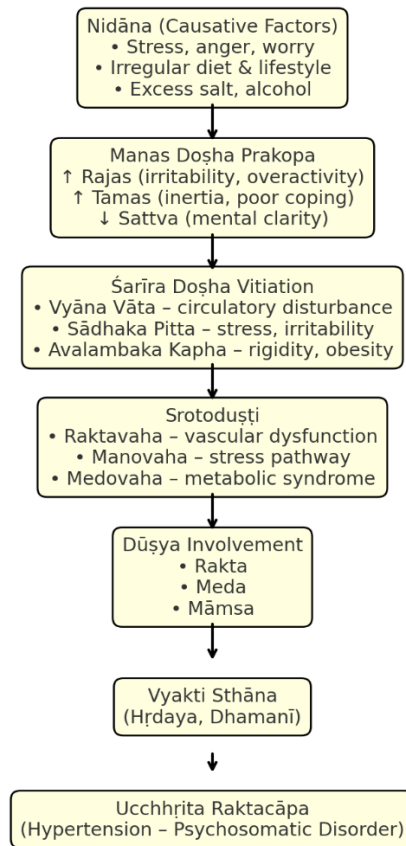
Introduction

Hypertension is one of the most prevalent non-communicable diseases worldwide and is a major risk factor for cardiovascular morbidity and mortality. According to the World Health Organization (WHO), approximately 1.28 billion adults aged 30–79 years are living with hypertension globally, with the majority residing in low- and middle-income countries¹. In India, its prevalence is increasing at an alarming rate due to urbanization, stress, and lifestyle changes².

Modern science describes hypertension as a condition of sustained elevation of arterial blood pressure, arising from multifactorial causes including sympathetic overactivity, renin–angiotensin system dysregulation, endothelial dysfunction, and psychosocial stress³. Importantly, psychological factors such as chronic stress, anxiety, and depression are strongly associated with the onset and persistence of hypertension.

Ayurveda, the ancient Indian system of medicine, emphasizes the psychosomatic nature of health and disease. While hypertension is not described as a distinct entity in classical texts, it can be understood under the concepts of Ucchhṛita Raktacāpa, Raktavaha Srotoduṣṭi, and Manasika Bhāva-vikāra. According to Ayurveda, disease manifestation is a result of the vitiation of Śarīra Doṣhas (Vāta, Pitta, Kapha) in association with the imbalance of Manas Doṣhas (Rajas, Tamas). Chronic stress and emotional disturbances vitiate Rajas and Tamas, suppressing Sattva, and this imbalance influences Vyāna Vāta and Sādhaka Pitta, leading to deranged cardiovascular regulation.

Thus, hypertension can be considered a psychosomatic disorder, where mental stress and emotional imbalance act as initiating factors that eventually manifest as somatic dysfunction. A detailed exploration of the interplay between Manas Doṣhas and Śarīra Doṣhas offers valuable insights into the holistic pathogenesis and management of hypertension.



Aims and Objectives:

This review article intended to explain in detail about the concept of pathogenesis of hypertension. We have also represented hypertension along its correlation with Ayurveda. Our article is based on the objective to depict concept of psychosomatic pathogenesis of disease.

Materials and Methods:

This study is mainly carried out by literature research. Various Ayurvedic texts such as Charak Samhita, Sushruta Samhita, Asthang Hridayam etc. as well as modern references regarding pathogenesis were studied.

Samprapti Ghaṭaka of Hypertension (Psychosomatic Origin)

Samprapti Component	Details
Nidāna (Causative Factors)	Stress, anxiety, anger, excessive worry, irregular diet, excess salt, alcohol, sedentary lifestyle
Doṣha	Manas Doṣha: Rajas ↑, Tamas ↑, Sattva ↓ Śarīra Doṣha: Vyāna Vāta ↑, Sādhaka Pitta ↑, Avalambaka Kapha ↑
Dūṣya (Affected Tissues)	Rakta, Meda, Māmsa
Agni	Mandāgni (metabolic disturbance)
Srotas (Channels)	Raktavaha Srotas (vascular dysfunction), Manovaha Srotas (stress pathway), Medovaha Srotas (metabolic syndrome)
Udbhava Sthāna (Origin site)	Manas (mind), Hṛdaya (heart)
Vyakti Sthāna (Site of manifestation)	Hṛdaya and Dhamanī (cardiovascular system)
Sāmprāpti (Pathogenesis)	Nidāna → Manas Doṣha Prakopa (Rajas/Tamas) → Vitiation of Vyāna Vāta & Sādhaka Pitta → Srotoduṣṭi in Raktavaha & Manovaha → Dūṣya involvement (Rakta, Meda, Māmsa) → Manifestation at Hṛdaya/Dhamanī → Ucchṛita Raktacāpa (Hypertension)

Ayurvedic Perspective

Hypertension (Ucchṛita Raktacāpa) is not described as a separate disease in the classical Ayurvedic texts, yet its pathogenesis can be understood through the principles of Doṣha, Dhātu, Mala, Srotas and Manas. Ayurveda emphasizes the psychosomatic nature of health, where both Manas Doṣhas (Rajas, Tamas) and Śarīra Doṣhas (Vāta, Pitta, Kapha) interact dynamically in the manifestation of diseases.

1. Role of Manas Doṣhas

- Rajas – Represents activity, dynamism, irritability, and aggression. Its vitiation manifests as anger, stress, competitiveness, and hyper-responsiveness, closely resembling sympathetic overactivity in modern science.
- Tamas – Represents inertia, ignorance, and depression. Its vitiation causes lack of coping ability, depressive tendencies, and maladaptive stress responses, comparable to chronic stress-induced maladaptation.
- Sattva – Represents mental clarity and balance. When Sattva diminishes due to Rajas–Tamas dominance, the individual loses emotional stability, leading to dysregulated cardiovascular responses.

Thus, Rajas and Tamas aggravation with Sattva suppression form the Manasika foundation of hypertension.

2. Role of Śarīra Doṣhas

- Vāta Doṣha (Vyāna Vāta) – Regulates circulation, cardiac activity, and blood vessel tone. Vitiating Vyāna Vāta causes irregular blood pressure, palpitations, and vascular instability.
- Pitta Doṣha (Sādhaka Pitta) – Governs emotional processing and stress response. Its aggravation leads to irritability, anxiety, and sympathetic dominance.

- Kapha Doṣha (Avalambaka Kapha, Meda Dhātu) – Provides stability and support. When aggravated, it leads to obesity, atherosclerosis, and vascular rigidity, contributing to long-standing hypertension.

3. Dūṣyas (Affected Tissues)

- Rakta Dhātu – Primary involvement; elevated pressure due to vitiation.
- Meda Dhātu – Contributes to obesity and metabolic syndrome.
- Māmsa Dhātu – Involved in vascular stiffness and hypertrophy of vessel walls.

4. Srotas Involvement

- Raktavaha Srotas – Impaired vascular function.
- Manovaha Srotas – Connection of stress and emotional disturbance with hypertension.
- Medovaha Srotas – Metabolic disturbances (obesity, dyslipidemia).

Ayurvedic Management Perspective of Hypertension

The Ayurvedic management of hypertension (Ucchhṛita Raktacāpa) is aimed at correcting the imbalance of Manas Doṣhas (Rajas, Tamas) and Śārīra Doṣhas (Vāta, Pitta, Kapha), stabilizing Srotas, and promoting Satva. The approach is comprehensive, involving Nidāna Parivarjana, Satvavajaya, Śamana, Śodhana, Rasāyana, and Pathya–Āpathya.

1. Nidāna Parivarjana (Avoidance of Causes)

- Avoid stress, anger, excessive worry, fear.
- Reduce high-salt and spicy food, alcohol, smoking, junk food.
- Avoid sedentary lifestyle and night awakening.
- Encourage balanced diet, proper sleep, and regular exercise.

2. Satvavajaya Cikitsā (Psychological Therapy)

- Meditation (Dhyāna), Yoga, Prāṇāyāma → Restores Satva, reduces Rajas & Tamas, balances autonomic nervous system.
- Counseling & stress management → Enhances coping ability.
- Mantra Japa & positive thinking practices → Strengthen Manas stability.

3. Śamana Cikitsā (Palliative Therapy)

a) Medhya Rasāyana (to stabilize Manas Doṣhas):

- Brahmi (Bacopa monnieri)
- Mandukaparni (Centella asiatica)
- Shankhapushpi (Convolvulus pluricaulis)
- Jatamansi (Nardostachys jatamansi)

b) Hṛdya & Vāta-Pitta Shamana Dravyas (to balance Śārīra Doṣhas):

- Arjuna (Terminalia arjuna) – cardioprotective, antioxidant
- Pushkarmoola (Inula racemosa) – Hṛdya, Vāta-Pitta śamana
- Sarpagandha (Rauwolfia serpentina) – antihypertensive action
- Guduchi (Tinospora cordifolia), Yashtimadhu (Glycyrrhiza glabra) – Rasāyana & stress relievers

c) Taila & Ghṛita Preparations:

- Brahmi Ghṛita, Saraswata Ghṛita – Medhya & calming
- Kalyānaka Ghṛita – Manas balancing

4. Śodhana Cikitsā (Detoxification / Panchakarma)

- **Virechana** – Pitta-śamana, reduces irritability & heat, lowers BP.
- **Basti** – Especially Niruha & Anuvasana basti for Vāta-pacification and stress reduction.
- **Raktamokṣaṇa** – In cases of Rakta Duṣṭi (especially Pittaja type).
- **Nasya with Medhya dravyas** – For Manovaha Srotas balance.

5. Rasāyana Therapy

- **Medhya Rasāyana** – Improves memory, intellect, stress adaptation.
- **Hṛdya Rasāyana** – Arjuna, Amalaki, Draksha.
- **Ojas-vardhaka dravyas** – Shilajatu, Ashwagandha for improving resilience.

6. Pathya–Āpathya (Diet & Lifestyle)

a) Āhāra (Diet)

- Satvika diet – Fruits, vegetables, whole grains, milk, ghee in moderation.
- Low-salt, low-fat diet; avoid excess spicy, sour, fermented foods.
- Garlic, onion, coriander, bottle gourd, pumpkin – useful in hypertension.

b) Vihāra (Lifestyle)

- Daily Yoga, Prāṇāyāma (Anuloma-Viloma, Bhramari, Sheetali).
- Regular moderate exercise like walking, swimming.
- Adequate sleep; avoid night vigils.

c) Āchāra (Conduct)

- Avoid anger, jealousy, overwork.
- Practice meditation, positive thinking, and calm lifestyle.
- Maintain regularity in daily routine (Dinacharya).

Modern Correlation of Hypertension with Ayurvedic Perspective

Ayurvedic Concept	Modern Correlation	Explanation
Ucchhṛita Raktacāpa / Raktavaha Srotoduṣṭi	Essential Hypertension / Vascular Dysfunction	Elevated blood pressure due to sympathetic dominance, endothelial dysfunction, and arterial stiffness.
Vyāna Vāta vitiation	Sympathetic overactivity & altered hemodynamics	Vyāna Vāta governs circulation; its vitiation manifests as increased vascular resistance, tachycardia, and fluctuating BP.
Sādhaka Pitta vitiation	Stress axis (HPA axis) overactivation	Sādhaka Pitta regulates emotions and stress response; its aggravation parallels cortisol hypersecretion, irritability, and anxiety.
Avalambaka Kapha vitiation	Obesity, dyslipidemia, metabolic syndrome	Kapha imbalance causes structural rigidity and fat deposition, similar to obesity-related hypertension and atherosclerosis.
Rajas (Manas Doṣha)	Sympathetic overdrive, stress reactivity	Excess Rajas leads to anger, competitiveness, anxiety → mirrors fight-or-flight activation.
Tamas (Manas Doṣha)	Depression, maladaptive coping	Tamas dominance causes lack of resilience, sedentary lifestyle, and depressive states → linked with chronic hypertension.
Suppression of Sattva	Loss of autonomic balance & emotional stability	Diminished Sattva corresponds to impaired parasympathetic function, poor coping, and stress vulnerability.

Ayurvedic Concept	Modern Correlation	Explanation
Manovaha Srotoduṣṭi	Psychosomatic link (Mind–Body Axis)	Correlates with psychoneuroendocrine dysfunction (stress → HPA axis → hypertension).
Raktavaha Srotoduṣṭi	Vascular dysfunction & endothelial damage	Similar to endothelial dysfunction, nitric oxide deficiency, and arterial stiffness.
Meda Dhātu Duṣṭi	Metabolic syndrome / Insulin resistance	Excess Meda parallels obesity, insulin resistance, and lipid abnormalities in hypertensives.

Modern Mechanism of Ayurvedic Management

Ayurvedic Approach	Modern Correlation
Satvavajaya Cikitsā (Yoga, meditation, Prāṇāyāma)	Reduces stress, improves parasympathetic tone, lowers cortisol and catecholamine levels.
Virechana	Detoxification, reduces oxidative stress & inflammation; improves metabolic parameters.
Basti	Balances autonomic nervous system, reduces Vāta-related stress responses.
Rasāyana (Brahmi, Mandukaparni, Arjuna, Ashwagandha)	Nootropic, antioxidant, anxiolytic, cardioprotective; improves stress resilience and vascular health.
Pathya Āhāra (low salt, Satvika diet)	Comparable to DASH diet – reduces sodium intake, improves endothelial function, and controls BP.
Dinacharya & Ācāra	Regular routine, adequate sleep, stress management → circadian rhythm regulation, autonomic stability.

Discussion

Hypertension is a multifactorial disorder with a significant psychosomatic basis. Contemporary research highlights the role of psychosocial stress, sympathetic overactivity, and hypothalamic–pituitary–adrenal (HPA) axis dysregulation as major contributors to its pathophysiology⁸. Stress leads to enhanced secretion of catecholamines and cortisol, which cause vasoconstriction, sodium retention, and endothelial dysfunction. These changes resemble the Ayurvedic description of Vyāna Vāta vitiation, where disturbance in circulatory dynamics results in irregular and forceful pulsation¹.

The dominance of Rajasika and Tamasika Manas Doṣhas is a key psychosomatic factor in hypertension. Rajas, being associated with activity, irritability, and aggressiveness, parallels the modern concept of sympathetic overactivity¹¹. Tamas, associated with inertia, ignorance, and depression, may contribute to maladaptive stress coping, similar to depressive stress-related hypertension¹². When Rajas and Tamas predominate, Sattva becomes suppressed, leading to emotional instability and impaired regulation of cardiovascular responses¹³.

Among Śarīra Doṣhas, Vāta and Pitta play central roles in the manifestation of hypertension. Vyāna Vāta regulates the circulation of blood, while Sādhaka Pitta governs emotions and stress processing. Their vitiation under stress conditions results in increased arterial tone, irritability, and anxiety¹. Avalambaka Kapha and Meda Dhātu are also implicated, particularly in obesity-induced hypertension, where excess Kapha and Meda cause vascular rigidity and metabolic syndrome¹.

Srotoduṣṭi is another central aspect of Ayurvedic understanding. The involvement of Raktavaha Srotas leads to disturbances in vascular function, while Manovaha Srotas connects emotional stress with somatic manifestations. This aligns with modern psychoneuroendocrine findings where stress alters neuro-hormonal signaling and vascular compliance¹.

Therapeutically, Ayurveda emphasizes Satvavajaya Cikitsā, which includes counseling, cognitive control, yoga, and meditation to restore Sattva and reduce Rajas–Tamas dominance¹. These measures parallel

modern stress-reduction techniques like mindfulness and cognitive behavioral therapy, both of which have been shown to lower blood pressure¹. Furthermore, Śamana therapies such as Medhya Rasāyanas (Brahmi, Mandukaparni, Shankhpushpi) and Hṛdya dravyas (Arjuna, Pushkarmoola, Sarpagandha) are effective in balancing both Manas and Śarīra Doṣhas¹. Śodhana therapies—especially Virechana and Basti—help pacify Pitta and Vāta respectively, providing systemic detoxification and stabilization of blood pressure². Thus, hypertension illustrates the Ayurvedic principle of psychosomatic pathogenesis, where the interplay of Manas Doṣhas (Rajas, Tamas) and Śarīra Doṣhas (Vāta, Pitta, Kapha) results in a complex, chronic disorder. A holistic approach involving Nidāna Parivarjana, Satvavajaya, Rasāyana, and Śodhana offers an integrative solution, resonating with modern preventive and lifestyle-based approaches to hypertension management²¹.

Conclusion

Hypertension is a psychosomatic disorder arising from the dynamic interplay of Manas Doṣhas (Rajas, Tamas) and Śarīra Doṣhas (Vāta, Pitta, Kapha). The Ayurvedic concept of Srotoduṣṭi, Raktaduṣṭi, and Manovaha Srotoduṣṭi correlates well with the modern neuroendocrine and vascular pathophysiology. A comprehensive management including Satvavajaya Chikitsā, Rasāyana therapy, lifestyle modifications, and Śodhana procedures holds promise for effective prevention and control of hypertension.

References

1. World Health Organization. Hypertension [Internet]. 2023 [cited 2025 Aug 28].
2. Gupta R, Gaur K, Ram CVS. Emerging trends in hypertension epidemiology in India. *J Hum Hypertens*. 2019 Aug;33(8):575-587.
3. Carretero OA, Oparil S. Essential hypertension. Part I: definition and etiology. *Circulation*. 2000 Jan;101(3):329-35.
4. Spruill TM. Chronic psychosocial stress and hypertension. *Curr Hypertens Rep*. 2010 Feb;12(1):10-6.
5. Tripathi B, editor. *Caraka Saṃhitā of Agnivesha, Sutra Sthana, Ch. 17 (Kiyanta Shirasiya Adhyaya)*. Varanasi: Chaukhamba Surbharati Prakashan; 2014. p. 95-98.
6. Sharma PV, editor. *Suśruta Saṃhitā with English translation, Nidana Sthana, Ch. 1*. Varanasi: Chaukhamba Visvabharati; 2013. p. 270-272.
7. Murthy KRS, editor. *Aṣṭāṅga Hṛdaya of Vāgbhaṭa, Sutra Sthana, Ch. 1-12*. Varanasi: Chaukhamba Krishnadas Academy; 2012. p. 22-25.
8. Chrousos GP. Stress and disorders of the stress system. *Nat Rev Endocrinol*. 2009 Jul;5(7):374-81.
9. Esler M. Sympathetic nervous system and hypertension. *J Cardiovasc Pharmacol*. 1992;19 Suppl 2:S1-7.
10. Tripathi B, editor. *Caraka Saṃhitā of Agnivesha, Sutra Sthana, Ch. 30*. Varanasi: Chaukhamba Surbharati Prakashan; 2014. p. 556-60.
11. Dusek JA, Benson H. Mind-body medicine: a model of the comparative clinical impact of the acute stress and relaxation responses. *Minn Med*. 2009;92(5):47-50.
12. Jonas BS, Franks P, Ingram DD. Are symptoms of anxiety and depression risk factors for hypertension? *Arch Fam Med*. 1997 Jan;6(1):43-9.
13. Sharma PV, editor. *Suśruta Saṃhitā, Nidana Sthana, Ch. 1*. Varanasi: Chaukhamba Visvabharati; 2013. p. 270-272.
14. Murthy KRS, editor. *Aṣṭāṅga Hṛdaya, Sutra Sthana, Ch. 12*. Varanasi: Chaukhamba Krishnadas Academy; 2012. p. 98-100.
15. Kannel WB. Risk stratification in hypertension: new insights from the Framingham Study. *Am J Hypertens*. 2000 Jan;13(1 Pt 2):3S-10S.
16. Spruill TM. Chronic psychosocial stress and hypertension. *Curr Hypertens Rep*. 2010 Feb;12(1):10-6.

17. Singh RH. The holistic principles of Ayurvedic medicine. Delhi: Chaukhambha Sanskrit Pratishthan; 2002. p. 209–214.
18. Park SH, Han KS. Blood pressure response to meditation and yoga: a systematic review and meta-analysis. J Altern Complement Med. 2017 Sep;23(9):685–95.
19. Pandey AK, Ojha SK, Bhattacharya SK. Medhya rasayana and neuropharmacological effects of Brahmi (*Bacopa monnieri*). Indian J Exp Biol. 1994 Jul;32(7):524–9.
20. Thakar AB, et al. Role of Panchakarma in lifestyle disorders. AYU. 2010;31(1):28–35.
21. Hankey A. CAM modalities can stimulate advances in theoretical biology. Evid Based Complement Alternat Med. 2005;2(1):5–12.

