

THE BRAIN-GUT-AXIS IN AYURVEDA: A NEURO-METABOLIC ANALYSIS OF *KRODHA* INDUCED *AGNI-DUSHTI*

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ABSTRACT

Krodha (anger) is an intense *Manas Bhava* (mental emotion) explicitly described in *Ayurveda* as having an *Aagneya* (fiery) and *Ushna* (hot) nature.^[1,4,7] This inherent feature directly links *Krodha* with the deranged state of *Pitta Dosha* and functional derangement of *Agni* (digestive/metabolic fire), thus establishing a classical psycho-metabolic axis.^[4,6] This review gives an integration of classical Ayurvedic concepts and modern psychoneuroimmunology (PNI) to explain the exact mechanism of how acute and chronic *Krodha* causes a shift in *Jatharagni* (main digestive fire) from a balanced state (*Sama Agni*) to a hyperfunctional state (*Tikshna Agni*), leading to the manifestation of *Pitta*-dominant disorders such as *Amlapitta* (hyperacidity/GERD).^[9,10] The findings emphasize the need for the integration of *Satvavajaya Chikitsa* (Ayurvedic psychotherapy) with metabolic correction for the successful management of psychosomatic diseases.^[15,17]

KEYWORDS: *Krodha*, *Agni*, *Pitta*, Brain–Gut Axis, Psychoneuroimmunology.

1. INTRODUCTION

Agni is considered the root cause of life, health (*Arogya*), and longevity, controlling digestion, metabolism, and tissue transformation (*Dhatu Parinama*).^[2,3] The main *Agni* is

Jatharagni (digestive fire), and its maintenance is essential for the overall health.^[4] The primary significance of *Agni* is mentioned in the basic texts:

आयुर्वर्णो बलं स्वास्थ्यमुत्साहोपचयौ प्रभा ।

ओजस्तेजोऽग्नयः प्राणाश्चेष्टाः स्युर्देहधारकाः ॥

(*Ayu, Varna, Bala, Swasthya, Utsaha, Upachaya, Prabha, Ojas, Tejas, Agni, Prana, and Chesta* are all supported by the strength of *Agni*).^[20]

Physiologically, *Agni* is the heat (*Ushma*) produced from *Pitta Dosha*; hence, its function is inseparable from *Pitta* homeostasis.^[2] *Agni* is very susceptible to the effect of *Manasika Bhavas* like *Krodha* (anger), *Shoka* (grief), *Chinta* (worry), and *Bhaya* (fear), as per *Ayurveda*.^[4,5,6] The effect of *Krodha* is not systemic but is directed specifically towards *Agni*, resulting in its derangement (*Agnidushti*).^[1] *Krodha* induced *Agnidushti* in *Pitta* pathology has a well-established mind-body connection. This review gives a robust citable model of this connection.

2. MATERIALS AND METHODS

This study is a systematic and comprehensive literature review. The data was collected from the following primary sources:

2.1. Classical and Contemporary *Ayurvedic* Texts: Primary sources (*Brihatrayi, Charaka Samhita, Sushruta Samhita, Ashtanga Hridaya*)

2.2. Review analytics published in the journals.^[1,2,3,4,20]

3. DISCUSSION

The *Ayurvedic* model of the psycho-metabolic axis, where mental factor (*Krodha*) is identified by its physical attribute */Guna* (*Ushna*) and directly impacts the physiological regulator of metabolism, i.e., *Agni*, provides a clinically actionable framework. Thus, the concept of *Manasika Nidana* (psychological etiology) directly and measurably affecting *Sharirika Dosha* (bodily humors) strongly anticipates the core tenets of modern psychoneuroimmunology (PNI).^[15,17]

The current paradigm of stress activating the Sympathetic Nervous System (SNS) and Hypothalamic-Pituitary-Adrenal (HPA) axis, which in turn suppresses digestive function through neuroendocrine signaling, is an exact match for *Pitta-Vata Vriddhi* and *Saman Vayu*

Dushti leading to *Agnidushti*.^[9,8] Oxidative stress is caused by the simultaneous increase of *Pitta* and *Vata*. *Samana Vata* is in the whole *Antah-Koshtha* (GI tract). It is the companion of *Agni* and is responsible for *Antah-Koshtha Charati* (movement in the gut). In case of *Vata Vriddhi* due to stress, this *Vayu* becomes *Viguna* (vitiated) and fails to “fan” the *Agni* properly, which leads to *Vishamagni* or *Agnidushti*. This correlation confirms the ancient wisdom and strengthens the plea for integrated treatment.

3.1. Implications for treatment

The *Krodha*-induced *Tikshna Agni* and *Pitta* vitiation are to be managed in two directions as follows:

1. Metabolic Correction (*Yuktivyapasaraya Chikitsa*): *Tikshna Agni* management by *Pitta Shaman* protocols, *Madhura* (sweet), *Tikta* (bitter), and *Kashaya* (astringent) *Rasas*.^[12,13] This includes *Vamana* or *Virechana* (*Shodhana*) for aggravated *Kapha-Pitta* or *Pitta*, respectively, to clear the root pathology.^[13,17]
2. Psychological Intervention (*Satvavajaya Chikitsa*): It is a direct therapy of mental control. It includes *Dhairya* (determination), *Smriti* (memory/mindfulness), and *Samadhi* (concentration), which are parallel to modern Cognitive Behavioral Therapy (CBT).^[16,14] *Medhya Rasayana* (nootropics/adaptogens) are important for stress resilience, restoration of *Ojas*, and moderation of nervous system response.^[14]

4. CONCLUSION

4.1. *Krodha* as *Aagneya* and *Pitta*-Aggravating Factor

Krodha is specifically mentioned in the *Ayurvedic* texts as an expression of aggravated *Rajas Guna* and is intrinsically *Aagneya* (fiery).^[7] This elemental composition makes it have the qualities of *Ushna* (hot) and *Tikshna* (sharp/penetrating).^[1]

Pitta and *Agni* are Inseparable: The link between *Pitta* and *Agni* is established because there is no other fire that can be perceived except *Pitta*.

न हि पित्तव्यतिरेकादग्निरुपलभ्यते ॥

(There is no other fire that can be perceived except *Pitta*.)^[21]

Common Qualities: The *Ushna* quality of *Krodha* corresponds directly with and exacerbates the *Ushna Guna* of the circulating *Pitta*.^[7] Acute *Krodha* is associated with increased stress and poorer mood in validated Western psychological assessments, confirming its role in

initiating *Pitta* imbalance (*Vikruti*).^[18]

4.2. The Psycho-Metabolic Mechanism of *Jatharagni* Derangement in *Krodha*

Krodha is a very strong emotional state that very quickly impairs the process of digestion (*Agnidushti*) through a known psycho-metabolic mechanism.

Pathway	Ayurvedic Mechanism	Modern Scientific Corelation
Direct Aggravation of Pitta	The <i>Ushna Guna</i> of <i>Krodha</i> enhances the <i>Ushna</i> and <i>Tikshna</i> qualities of <i>Pachaka Pitta</i> . ^[1,7]	Hyper-secretion of gastric acid (HCl). ^[11]
Neuro-Metabolic Axis	<i>Krodha</i> leads to <i>Pitta-Vata Vriddhi</i> . ^[4] This derangement effects <i>Saman Vayu</i> and disturb the coordinated movements and secretions in the gastrointestinal tract (GIT). ^[8,9]	Activation of the Sympathetic Nervous System (SNS), which is often correlated with <i>Pitta-Vata Vriddhi</i> , and release of stress hormones (cortisol, adrenaline). ^[9,8] This is conceptualized based on the <i>Ayurvedic</i> gut-brain axis. ^[6]

This leads to a state of *Tikshna agni* (sharp/high digestive fire), where aggravated pitta causes rapid or even destructive digestion.^[2] *Tikshna Agni* is one of the four states of *Agni* (*Sama*, *Manda*, *Tikshna*, and *Vishma*) denoting digestive imbalance.^[2]

Thus, *Krodha* is one of the major and authentic etiological factors in *Ayurveda*, which disturbs *Jatharagni* by increasing *Pitta Dosha* due to its common *Ushna* property, causing *Tikshna Agni* and diseases like *Amlapitta*. Chronic inflammation and digestive disorders are best understood through a complex model of psychometabolism. Future clinical studies should use validated scales for anger and *Agni* status (as proposed in related studies) and modern biochemical markers (e.g., cortisol and inflammatory cytokines) to establish the evidence base for this fundamental *Ayurvedic* principle.

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