Bridging ancient wisdom and modern science: Exploring the symbiotic relationship between Agni and manas in Ayurveda and contemporary perspectives

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Abstract

This paper examines the relationship between Agni (digestive fire) and Manas (mind) from both Ayurvedic and modern scientific viewpoints. Drawing upon the rich heritage of Ayurveda, it explores the intricate connections between Agni and Manas, emphasizing their role in maintaining holistic health. Ayurvedic literature elucidates how the state of Agni influences mental well-being and vice versa, underscoring the importance of balancing both for optimal health. Furthermore, the paper integrates modern scientific research to provide insights into the physiological mechanism underlying the Agni-Manas relationship, including the Gut-Brain axis and the influence of neurotransmitters on digestion and mood. Through this contemporary understanding, offering avenues for holistic health promotion that resonate with both traditional wisdom and scientific evidence.

For this study, a review of classical Ayurvedic texts such as Charak Samhita, Sushruta Samhita, and Ashtang Hridaya to understand the principles of Agni and Manas. Review of contemporary Ayurvedic literature and research articles focusing on Agni, Manas and scientific literature from books to understand the relation between digestion and mental health.

To investigate how Ayurvedic principles describe the interconnectedness of Agni and Manas in influencing overall health well-being.

To understand how disruptions in Agni can manifest as disturbances in Manas and vice versa from both the viewpoints.

The study underscores importance of recognizing and nurturing the symbiotic relationship between Agni and Manas for promoting optimal health and vitality. By embracing insights from both Ayurveda and modern science, individuals can cultivate a holistic approach to well-being that integrates ancient wisdom with contemporary knowledge.

Keywords: Agni; Mana; Manovikar; Gut-Brain Axis

1. Introduction

Our lifestyle and eating habits have a significant impact on our brain health. A balanced diet rich in nutrients can support cognitive function and regular physical activities also promote brain health by improving blood flow and stimulating release of chemicals that enhance mood and cognition. Conversely, poor dietary habits, sedentary behaviour, lack of sleep, stress impairs brain function and increases risk of developing conditions like Depression, anxiety and Alzheimer's...
According to Ayurveda, Agni is responsible for metabolizing food and maintaining physiological functions. The state of Agni is believed to influence not only physical health but also mental well-being. When Agni is balanced, it supports the proper digestion and absorption of nutrients. However, imbalances in Agni can lead to various health issues, including mental disturbances. Manas vikar (disturbances in mind) can also affect Agni. Therefore, there is a bidirectional relationship between Agni and Manas. Maintaining balanced Agni through proper diet, lifestyle, and stress management techniques can support both physical and mental well-being. While addressing mental disturbances can help regulate Agni and promote digestive health.

According to large population-based surveys, up to 33.7% of the population are affected by anxiety disorder during their lifetime. According to WHO, 1 in every 8 people (970 million peoples) in the world live with a mental disorder. This number rose in the year 2020 significantly because of COVID-19. Almost 26%-28% cases increased respectively for anxiety and major depressive disorders in one year. Hence, studying the relationship between Agni and Manas or the connection between gut microbiota and mental well-being is important to understand that Ayurveda emphasizes on the interconnectedness of mind, body, and spirit. We can identify the risk factors as well early warning signs, and this understanding can help lead to better prevention strategies for mental disorders. Integrating knowledge from Ayurveda and modern scientific research allows for a comprehensive approach to healthcare. By bridging the gap between ancient wisdom and contemporary science, we can harness the benefits of both systems to optimize health outcomes.

2. AGNI

Agni, according to Ayurveda, refers to digestive fire or metabolic energy responsible for transforming food into nutrients that the body can assimilate and use for various physiological functions. It is considered one of the most important principles in Ayurveda governing not only digestion but also metabolism, absorption, and assimilation of nutrients.

2.1. Definition of Agni

According to Charak Acharya, Agni is the transformative principle responsible for the digestion, absorption, and assimilation of food. It encompasses various physiological processes involved in breakdown of ingested food into smaller molecules that the body can utilize for energy and tissue repair.

2.2. Types of Agni – Agni is of 13 types

DHATVAGNI – The term dhatvagni means the fraction of agni that functions at various body components (dhatu) for nourishment and metabolism. There are 7 dhatvagni for seven Dhatus. The dhatvagni assimilates and synthesizes the dhatu or tissues of human body. It is located in the respective strotas of the particular dhatu. Dhatvagni is responsible for the transformation of one dhatu into another.

BHUTAGNI – Bhutagni is the one that is present in Panchmahabhuta. There are five Agnis in each of the five basic elements namely -Nabhas, Vayu, Apya, Teja, and Parthiva.

JATHARAGNI – Jathargni is the agni or bioenergy present in the jathara. According to Ashtang Hridaya, jathargani, the seat is grahanî. Jathargani is considered to be most important because each and every nutrient that one ingests first comes to the jathara. It is responsible for the separation of the food material into the essence portion and the waste products (saar-kitta vibhajan)

There are four types of jatharagni according to predominance of Tridoshas:

- Vishamagni – When agni is affected by Vata dosha it causes change between digesting food quickly and slowly.
- Tikshanagni – Tikshanagni is a state of very quick digestion of food, regardless of the type of food. In this agni is affected by pitta dosha.
- Mandagni – This agni is affected by Kapha dosha. Mandagni is slow digestive power. According to Dhanvantari in Mandagni, agni digestive least amount of food in the greatest amount of time.
- Samagni – The samagni digest and assimilates food properly at the proper time. Thus increases quality of Dhatu.
3. MANAS

*Mana, Aatma* (soul) and *Sharir* together leads to healthy life of an individual. *Mana* and *aatma* are inseparable during lifetime. *Mana* is described among the nine karan dravyas.

According to Amarkosha, mind is the entity through which the knowledge is obtained, which is closely related with *Aatma* (soul) through which one can perceive and the seat of *Mana* is Hridaya (heart).

Site of *Mana* According to Charaka, Hridaya holds Saguna *Aatma*, Chet and its Artha. He also describes that Hridaya is the site where the Rasa, Vatadi Dosh, Sattva, Buddhi and the senses remain along with *Aatma*. *Sharir* is also mentioned as *Sthana* of *Mana* along with Prana and Indriya. Sushruta and Vagbhata have clearly mentioned that location of *Sattva* is Hridaya. So heart can be considered as place of *Mana* but functions of *Mana* are related to brain.

**Manovaha Strotas** In Charak Samhita *Manovaha Strotas* has been mentioned. Hridaya and *Dasha Dhamanis* taking origin from heart are the *Moolasthana* of it.

Manas Roga Samanya Samprapti (Pathophysiology): *Sharir* and *Manas Doshas* vitiation leads to metabolic and somatic disturbances respectively. *Mana* is stated to be under the control of Vata. It has been stated that *Mana* and Vata work as synergism. Thus it is clear that vitiated *Mana* will cause vitiation of Vata and vice versa producing pathologies.

4. Relation between Agni and manas

The Gita accepts that food has major role in physiological and psychological growth. The Gita classifies food into three categories *Satvika, Rajsika, Tamsika*. *Mana* is also categorised in these three. *Mana* has all these three Gunas, but it shifts between these three frequencies according to the deeds person does frequently.

*Satvika* food increases vitality, energy, health, joy and cheerfulness known as *Satvika* food. Food which are bitter, sour, saline, over hot, pungent, dry are *Rajasika* food and produce pain, grief and sadness.

Food which are stale, tasteless, stinky, cooked overnight and impure are *Tamasika*. *Satvika* food promotes *Satvika* nature. And *Rajsika* and *Tamsika* food promote their respective nature.

- **PRAKRUTA AGNI KARMA**
  
  आयुर्वर्णो बलं स्र्ास््यमुत्साहोपचयौ प्रभा।
  ओजस्तेजोऽग्नयः प्रार्णाश्चोक्ता देहाग्नग्नहेतुकाः।।
  शान्तेऽग्नौ ग्नियते, युक्ते ग्नचरं जीर्त्यनामयः।
  रोगी स्याग्निकृते, मूलमग्नग्नस्तस्माग्निरुच्यते।।

*Dehagni* or *Jatharagni* (power of digestion and metabolism) is the reason for *Ayu* – life, *Varna* colour, complexion *Bala* strength and immunity *Swasthya* good health *Utsaha* energy, enthusiasm *Upachaya* bulk, shape, plumpness of body *Ojas* – immunity, disease resisting power, *Tejas* aura, complexion, radiance Maintenance of other varieties of *Agni* and *Prana*, Vital breath.

- **SATITATION OF SENSE ORGAN BY FOOD**

  Intake of delicious and wholesome food that has pleasant appearance, smell, colour, touch and sound nourishes and satiates the sense organs – nose, eyes, skin, tongue and ears.

- **AJIRNA LAKSHANAS**


- **MANOVIKARJANYA AJIRNA**

  भ्रष्टति चात्र- मात्रावार्यमात्राविचतं पथङ्ग चान्तं न जीयति।
It is said: Wholesome food taken even in proper quantity do not get properly digested when the individual is afflicted with grief, fear, anger, sorrow, excessive sleep and excessive vigil.

- **TRIDOSHA AND MANA**

Functions of balanced and imbalanced Tridoshas and their effect on Manas has been explained in Charka Samhita, sutrasthan Vatakakaliya adhyay. It is as follows:

- Balanced or Prakruta Vata\(^1\)\(^5\) initiates all the actions and speech.
- *Niyanta Praneta Cha Manasaha* – Vata controls and directs the mind.
- *Sarva Indriyanam Udvyojaka* – it coordinates, stimulates all the sense organs.
- *Sarva Indriya Arthatam Abhivoda* – it controls all the objects of sense faculties.
- Imbalanced Vata\(^1\)\(^6\) perturbs the mind; affects all the sense organs and sense faculties. Vata causes fear, anxiety, bewilderment, humility and delirium.

According to Achaya Marichi\(^1\)\(^7\) – *Agni* is alone represented by pitta in the body which brings about good or bad effects according to is normal or imbalanced states.

Also As *Pachak pitta* responsible for *pachan*, resides at *Grahami sthan* which is *sthan of Jatharagni* and *Sadhak pitta* resides in Hridya (heart) which is said to be *sthan of Mana, Oja and prana*. Hence *pitta* is mainly responsible for *Manobhav, manovikara* eg – *Shourya* -valour, *Bhaya* – fear, *Krodha* anger and *Harsha* – joy, bewilderment and happiness and such other pairs of opposite qualities.

Normal or imbalanced *Kapha*\(^1\)\(^8\) causes *Gyanam* - *agyanam*.

5. **Gut microbiota and brain axis**

The Gut brain axis is a bidirectional communication network that links the enteric and central nervous systems. This network is not only anatomical, but extends to include endocrine, humoral, metabolic and immune routes of communications as well. The autonomic nervous system, hypothalamic - pituitary - Adrenal (HPA) axis and nerves within the gastrointestinal tract all link the gut and the brain, allowing the brain to influence effector cells and the gut to influence mood, cognition and mental health.

The enteric microbiota extensively and profoundly influences the gut brain relationship i.e. mental state, emotional regulation neuromuscular function and regulation of HPA.

In addition research has demonstrated that the composition of gut bacteria appears to be influential in fetal and neonatal development\(^1\)\(^9\) and diet has been shown to influence the gut microbiome's impact on cognitive function\(^2\)\(^0\).

6. **Pathways of the gut - brain axis**\(^2\)\(^1\)

6.1. **Neurological pathway**

This pathway involves several components like

- *Vagus Nerve* – longest cranial nerve carries signals bidirectionally between the gut and the brainstem.

- *Enteric nerves* - Often referred as SECOBD BRAIN. The ENS is a complex network of neurons within GI Tract that operate independently and communicates with CNS.

6.2. **Neurotransmitters**

Chemical messengers such as serotonin, dopamine and gamma -aminobutyric acid (GABA) play key roles in transmitting signals along the gut brain axis, influencing mood, behaviour, and gastrointestinal functions.
6.3. Hormones
Hormones like leptin and cortisol produced by the gut and other organs, also contribute to the communication between the gut and the brain, regulating appetite, metabolism and stress responses.

6.4. Immune system
Immune cells and cytokines produced in the gut can communicate with the brain, impacting inflammation and neurological function.

6.5. Humoral / Metabolic Pathway
Bacterial metabolites short chain fatty acids SCFA (Produced by the bacterial fermentation of dietary carbohydrates) are decisive humoral influencers. It affects nutrition of enterocytes, exerts hormone like activities and immunomodulatory properties. Microbiota derived from SCFA are able to cross blood brain barrier and have been shown to regulate microglia homeostasis and involved in behaviour modulation.

6.6. Epithelial Barrier
Intestinal permeability defects have been associated with number of gut related disorders, such as IBS, necrotizing enterocolitis, obesity, diabetes, stress etc. Supplementation with probiotics influences intestinal tight junction integrity and thus support resolution of such conditions.

7. Conclusion
In conclusion, the research demonstrates a clear relationship between Agni and Manas, as elucidated by both Ayurvedic Principles and modern scientific understanding. Ayurveda emphasizes the intricate connection between digestive fire i.e. Agni and Mental faculties i.e. Manas. Suggesting that disturbances in agni can impact Manas and vice versa. This bidirectional interaction is supported by emerging evidence from studies on the gut-brain axis, which highlights the influence of gut health on mental well being and cognitive function. Integrating Ayurvedic wisdom with contemporary research findings underscores the importance of considering both physical and mental aspects of health in a holistic framework. Further exploration of the relationship between Agni and Manas holds promise for advancing personalized approaches to health optimization and disease management.

Compliance with ethical standards

Disclosure of conflict of interest
No conflict of interest to be disclosed.

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