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## **Review Article**

# PHYSIOLOGICAL REVIEW OF AJEERNA IN THE DEVELOPMENT OF VARIOUS DISEASES

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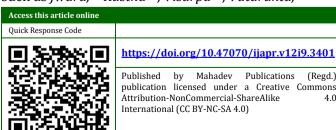
Ajeerna, Indigestion, Jathaaragni, Agnimandya.

#### **ABSTRACT**

According to World Health Organization, health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity. In Ayurveda also, health is nothing but harmonious balance in *Doshas, Dhatus, Malas* as well as *Agni* alongside a pleasant state of Atma, Manas and Indriya. Food and lifestyle plays important role in maintenance of health. Out of which food is most important factor for sustenance of healthy life and ensuring physiological function in human body. Food is not only essential for our physical wellbeing but it also nourishes mind. Digestion and assimilation of food is immensely important otherwise it can lead to diseases of gastrointestinal tract. Ajeerna means indigestion which is the first biomarker of malfunctioning of *Jathaaragni*. According to Charak Samhita, weak state of Jathaaragni (Agnimandya) is the root cause of all disease. Similarly, Madhav nidan also has mentioned that if Ajeerna is left untreated can lead to many diseases. So process of *Ajeerna* must be blocked by following the correct diet according to an individual's *Prakriti* and with proper medication treatment and lifestyle modifications. For the prevention of Ajeerna, Acharya Charak has mentioned dietary rules in the form of Ashtau ahar Vidhi Vishesh Ayatana and Acharya Shushrut has mentioned Dashvidha Ahara Vidhi vidhan. By following these guidelines and making thoughtful adjustments to diet and lifestyle, individuals can prevent the onset of Ajeerna and related diseases, ensuring the maintenance of balanced Agni and overall health.

## INTRODUCTION

Vata, Pitta and Kapha are the three main pillars which regulates all physiological function. [1] Aahar (food), Naidra (sleep) and Bramhachaya (celibacy) are three sub pillars of life on which human health is balanced. [2] Out of which food is most important factor for sustenance of life and ensuring physiological function in human body. Food is capable of nourishing the body only if it is well digested with the body with help of Jatharagni and assisted by Vata, Pitta and Kapha. [3] Ajeerna means indigestion which is first biomarker of malfunctioning of Jatharagni. [4] In Ayurveda Ajeerna is the most important etiological factor described in Nidan Ppanchak of many diseases such as Jwara, [5] Kustha [6], Visarpa [7], Vatarakta, [8]



*Grahani*<sup>[9]</sup>, *Visuchika*,<sup>[10]</sup> *Amlapitta*. <sup>[11]</sup> *Uruathambha*<sup>[12]</sup> Atisara. Simmillarly in modern medicine Ajeerna (Indigestion) is manifested in many metabolic disease hypertension. type diabetes 2 hypothyroidism and rheumatoid arthritis etc. but the prognostic criteria for these diseases is only decided on the basis of Blood Glucose levels, HbA1c, TSH, RA factor etc. [13-14] Ajeerna is also found in patients of cardiovascular diseases and hypertension. In all these condition Ajeerna is a major concern from patient perspective which is often ignored so importance of Ajeerna is discussed in this article which will be helpful in the management of gastrointestinal diseases and also in metabolic diseases mentioned above.

# AIMS AND OBJECTIVE

- 1. To understand concept of *Ajeerna* in Ayurveda.
- 2. To understand the role of *Ajeerna* in development of different diseases.

## **MATERIAL AND METHODOLOGY**

Literature search- Review of literature regarding *Ajeerna* is collected from 1. *Charaka Samhita* 2. *Sushruta Samhita* 3. *Ashtanga Hrudaya* 4. *Madhava Nidana* 5. *Kashyap Samhita*.

All collected references are reorganized and critically analysed for the discussion and attempt has been made to draw conclusions.

*Ajeerna* is defined as a state of incomplete digestion and metabolism caused due to deranged action of *Jatharagni* (digestive fire) which leads to formation of unprocessed or under processed state of ingested food termed as *Ajeerna*.<sup>[15]</sup>

# Etiological factor responsible in development of Ajeerna is discussed below[16-17]

Food related causative factor	Lifestyle related causative factor	Psychological causative factor	Other causative factor
<ol> <li>Excess intake of water (Atyambu Paan)</li> <li>Irregular dietary habits (Vishamashan)</li> <li>Incompatible food (Asatmya Ahar)</li> <li>Excess fasting (Abhojan)</li> <li>Over eating (Atibhojan)</li> <li>Excessive consumption of food which vitiates Kapha Dosha. (Kaphakara Ahar)</li> </ol>	<ol> <li>Suppression of natural urges (Vega-vidharan)</li> <li>Late night awaking (Prajagaran)</li> <li>Irregular sleeping habits (Swapna viparyay)</li> <li>Disturbed sleep cycle due to hard and uneven bedding (Dukkhashayya)</li> </ol>	1. Jealousy (Irshya) 2. Fear (Bhaya) 3. Anger (Krodha) 4. Anxiety (Chinta) 5. Grief (Shok) 6. Depression (Mano Dainya)	<ol> <li>Ajeerna is physiologically present after Vamana and Virechana procedures.</li> <li>Indigestion after internal oleation therapy (Sneha Vibharma)</li> <li>Chronic diseases (Vyadhi Karshan)</li> <li>Change in habitat and season (Desh, Kaal and Ritu Vaishamya)</li> </ol>

## Etiopathogenesis of Ajeerna

Exposure to causative factor

Vitiation of Kapha, Pitta and Vata

Impaired function of *Jatharagni* with respect of causative factor

Malfunctioning of Jatharagni

Ajeerna (Indigestion)

Biosynthesis of Aama

Development of various diseases

## Body constituent involved in development of Ajeerna are analyzed in the following table

Dosha	Amajeerna-Kapha	
	Vidagdha Ajirna-Pitta	
	Vishtabdha Ajirna- Vata	
Agni	Weakening of Agni (Agnimandya)	
Dushya	Rasa Sweda and Purisha	
Adhisthan	Stomach (Amashaya), intestines (Pakvashaya)	
Strotas	Gastrointestinal tract (Annavaha strotas )	

Types of *Ajeerna* are described in following table<sup>[18-19]</sup>

Ama Ajirna	Vidagdha Ajirna	Vishtabdha Ajirna	Rasasesha Ajirna	Dinpaki Ajirna	Prakrut Ajirna
Prominent Dosha- Kapha Excess secretion of Kledak Kapha in stomach reduces power of Agni and heat of Pachak Pitta gives rise to Agnimandya and Ama Ajeerna	Prominent Dosha- Pitta Pachak Pitta becomes more dilute (Drava) due to which Agni becomes weak, food is not digested completely so partly digested and digested food (Vidagdha Ahar) remain in gastrointestinal tract	Prominent Dosha-Vata Vitiated Vata adversely affect secretions of digestive juices, affects movements of GI tract and Pachak Pitta leading to Agnimandya and Ajeerna	Remnants of digested food material present even after digestion of food	It takes more time for digestion due to consumption of heavy food in large quantity	It is a physiological condition in which food is processed in gastrointestinal tract step by step & subjected to different stages of digestion

Management of *Ajeerna* is well elaborated in the Ayurvedic compendia which revolves around fasting (*Laghan*) food, medicines, and lifestyle modulation.<sup>[20]</sup>

*Ajeerna* is the most ignored clinical condition but if left untreated it can lead to various diseases not only related to gastrointestinal tract (*Annavaha strotas*) but can be manifested on other human systems giving rise to different diseases which are listed below.<sup>[4-13]</sup>

Annavaha strotas	Visuchika, Alasaka, Vilambika, Amlapitta, Grahani, Atisara	
Rasvaha strotas	Jwara and Hridrog	
Raktavaha strotas	Kustha, Visarpa, Vatarakta	
Mutravaha strotas	Mutrakruch V	

Ajeerna is found as a cause of the diseases like Hridroga, Kushtha, Urinary disorders which are other than disorders of Annavaha Strotasa therefore in the chapter of Agnimamdya, and Acharya Madhav nidan states that route cause of all disease is Ajeerna.

# Over view of Impact of indigestion on different body system in modern medicine

According to modern physiology all systems are interconnected. Health of gastrointestinal tract is immensely important as it is the first system exposed to healthy or unhealthy food. Organs of GI system, liver, cardiovascular system, respiratory system, nervous system all are supplied with parasympathetic fibers of vegas nerves. Vagus nerve coordinates and balances functions of all these systems so any derangement in the digestive functions can affect all systems. Acid reflux, hyperacidity, indigestion, irregular bowel habit are also found in the disease other than the diseases of digestive system which are supplied by Vagus nerve so *Ajeerna* can be a causative factor hypertension, hypothyroid, Type 2 diabetes mellitus and rheumatoid arthritis.[21-24]

#### **DISCUSSION**

According to Ayurveda repeated episodes of Ajeerna can lead to various systemic diseases like Jwara, Hridrog, Kustha, Vatarakta, Visuchika, Alasaka, Vilambika, Amlapitta, Grahani, Atisara etc. In Jwara, Pitta prakop leads to derangement of Agni which leads to Agnimandya and Ajeerna. Kushtha is a group of

dermatological disease in which *Ajeerna* is found as main etiological factor. *Vatarakta* is an inflammatory metabolic disease so wrong food stuffs- *Ajeerna*-biosynthesis of *Ama* causes inflammation of joints in the *Vatarakta* so *Ajeerna* is stated to be an etiological factor for *Vatarakata*.

Ajeerna is the etiological factor in the diseases like *Grahani, Visuchika, Amlapitta* is easily understood because these are the diseases of gastrointestinal tract. Similarly in modern medicine *Ajeerna* can be found as a symptom of hypertension, hypothyroid, type 2 diabetes mellitus and rheumatoid arthritis.

Hypertension is a condition in which high cardiac output, elasticity of blood vessel, high blood viscosity elevate the normal blood pressure. Ayurveda simultaneously gives importance to properties of the whole blood (Rasa and Rakta Dhatu and other fluids) flowing through blood vessels, which affects cardiac output and blood pressure adversely. Many factors such as Vyana Vayu, Prana Vayu, Rasa and Rakta Dhatu contribute to Hypertension. Among these, Rasa Dhatu is the most important as it is the first Dhatu formed from Ahar Rasa. Ajeerna (indigestion) can lead to vitiation of Rasa Dhatu by altering Physiological Properties of Rasa Dhatu, making it heavier to flow the blood vessels contributing to increased peripheral resistance leading to hypertension.

Though *Ajeerna* is not mentioned in the *Prameha* (Type 2 Diabetes) but dietary etiological factors contribute to vitiation of *Kapha* leading to *Agnimandya* and *Anjeerna*. *Ajeerna* is frequently found in Type 2 Diabetes Mellitus.

In hypothyroidism, *Ajeerna* is commonly found due to reduced secretion of digestive enzymes. According to Ayurveda hypothyroidism can be correlated with *Kapha Vruddha* and *Kapha Prakop* making *Agni* more weak giving rise to *Ajeerna*.

Rheumatoid arthritis can be correlated with *Amavata*. In *Amavata Aam* is main etiological factor and *Aam* itself is the product of *Ajeerna*.

All these diseases are now days managed symptomatically, irrespective of particular medical system, only giving importance to laboratory reports. These reports are used as an indicator of good control of these diseases. Gastrointestinal disturbances are not emphasized by medical practitioners. Chronic *Ajeerna* can disturb gut micro biota giving rise to diseases of various organ systems.

In today's era psychological factors contribute to stress leading to *Ajeerna* resulting in the derangement of parasympathetic function of vagus nerves affecting digestion, absorption and metabolism leading to *Ajeerna* and may progress and affect cardiac activity hence according to Ayurveda "Ajeerna" is the etiological factor of Heart diseases. *Ajeerna* can significantly influence disease development and pathology across various organ systems.

### **CONCLUSION**

Incomplete digestion and metabolism due to disturbed *Agni* (digestive fire) leads to formation of unprocessed or under processed state of ingested food termed as *Ajirna*. Consecutive episodes of *Ajeerna* can lead to various systemic diseases like *Jwara*, *Hridrog*, *Kustha*, *Vatarakta*, *Visuchika*, *Alasaka*, *Vilambika*, *Amlapitta*, *Grahani*, *Atisara* etc. Similarly *Ajeerna* should be given importance in the management of hypertension, hypothyroidism, type 2 diabetes mellitus and rheumatoid arthritis. *Ajeerna* can be prevented by advising to follow dietary rules described in Ayurveda to prevent the diseases.

Also psychological factors like jealousy, fear, anger, anxiety, grief and depression should be controlled by practicing *Yoga* and breathing exercises to balance *Jatharagni* and *Tri-Dosha* for optimal digestion and metabolism.

## **REFERENCES**

- 1. Thakaral KK, Dalhan, Sushruta Samhita, Vol 1 (Sutra, Nidan sthana), Varanasi; Chaukhamba Oriential; 2020. p.243.
- 2. Kushavaha HS, Agnivesha, Dridhabala, Charaka Samhita, Vol 1, (Sutra, Nidan Viman, Sharir and

- Indriya sthana), Varanasi; Chaukhamba Oriential; 2011. p.171.
- 3. Kushavaha HS, Agnivesha, Dridhabala, Charaka Samhita, Vol 2, (Chikitsa, Kalpa and Siddhi sthana), Varanasi; Chaukhamba Oriential; 2011. p.376.
- 4. Rashmi shriwas, Sanjay Shukla, Rupendra Kumar Chandrakar, Harikrishna Shrives. Etiopathological Study of Most Common Digestive Disorder Ajirna (Indigestion). International Journal of Ayurveda and Pharma Research. 2018; 6(5): 84-88.
- 5. Thakaral KK, Dalhan, Sushruta Samhita, Vol 3 (Uttartantra), Varanasi; Chaukhamba Oriential; 2020. p.224.
- 6. Kushavaha HS, Agnivesha, Dridhabala, Charaka Samhita, Vol 2, (Chikitsa, Kalpa and Siddhi sthana), Varanasi; Chaukhamba Oriential; 2011. p.196-197.
- 7. Kushavaha HS, Agnivesha, Dridhabala, Charaka Samhita, Vol 2, (Chikitsa, Kalpa and Siddhi sthana), Varanasi; Chaukhamba Oriential; 2011. p.535.
- 8. Kushavaha HS, Agnivesha, Dridhabala, Charaka Samhita, Vol 2, (Chikitsa, Kalpa and Siddhi sthana), Varanasi; Chaukhamba Oriential; 2011.p.773.
- 9. Kushavaha HS, Agnivesha, Dridhabala, Charaka Samhita, Vol 2, (Chikitsa, Kalpa and Siddhi sthana), Varanasi; Chaukhamba Oriential; 2011. p.389.
- 10. Thakaral KK, Dalhan, Sushruta Samhita, Vol 3 (Uttartantra), Varanasi; Chaukhamba Oriential; 2020. p.539.
- 11. Sharma H, Kashyapa Samhita, (Khil Sthana) Varanasi: Chaukhamba Sanskrit Series Office; 2008. p.335
- 12. Kushavaha HS, Agnivesha, Dridhabala, Charaka Samhita, Vol 2, (Chikitsa, Kalpa and Siddhi sthana), Varanasi; Chaukhamba Oriential; 2011.p.376.
- 13. Ierardi E, Rosania R, Zotti M, Principe S, Laonigro G, Giorgio F, de Francesco V, Panella C. Metabolic syndrome and gastro-esophageal reflux: A link towards a growing interest in developed countries. World J Gastrointest Pathophysiol. 2010 Aug 15; 1(3): 91-6.
- 14. Iatcu CO, Steen A, Covasa M. Gut Microbiota and Complications of Type-2 Diabetes. Nutrients. 2021 Dec 30; 14(1): 166.
- 15. Critical analysis of etiological factors of ajirna indigestion; [cited 2024 October 17] Available from https://medcraveonline.com/IJCAM/critical-analysis-of-etiological-factors-of-ajirna-indigestion.html
- Thakaral KK, Dalhan, Sushruta Samhita, Vol 1 (Sutra, Nidan sthana), Varanasi; Chaukhamba Oriential; 2020. p.653
- 17. Sharma PV, Charak Samhita (Vimana Sthana) vol-2, Chaukhamba Orientalia, Varanasi, 2005. p.253.
- 18. Tripathi B, Madhava Nidan, Chaukhamba surbharati prakashan, Varanasi, 6/26.
- 19. Kushavaha HS, Agnivesha, Dridhabala, Charaka Samhita, Vol 1, (Sutra, Nidan Viman, Sharir and

- Indriya sthana), Varanasi; Chaukhamba Oriential; 2011. p.591.
- 20. Thakaral KK, Dalhan, Sushruta Samhita, Vol 1 (Sutra, Nidan sthana), Varanasi; Chaukhamba Oriential; 2020. p.655
- 21. Breit S, Kupferberg A, Rogler G, Hasler G. Vagus Nerve as Modulator of the Brain-Gut Axis in Psychiatric and Inflammatory Disorders. Front Psychiatry. 2018 Mar 13: 9: 44.
- 22. Capilupi MJ, Kerath SM, Becker LB. Vagus Nerve Stimulation and the Cardiovascular System. Cold

- Spring Harb Perspect Med. 2020 Feb 3; 10(2): a034173.
- 23. Schachter H. Indigestion and Heartburn. In: Walker HK, Hall WD, Hurst JW, editors. Clinical Methods: The History, Physical, and Laboratory Examinations. 3<sup>rd</sup> edition. Boston: Butterworths; 1990. Chapter 83.
- 24. Grandes XA, Talanki Manjunatha R, Habib S, Sangaraju SL, Yepez D. Gastroesophageal Reflux Disease and Asthma: A Narrative Review. Cureus. 2022 May 11; 14(5): e24917.

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