

REVIEW ARTICLE

Moolam Agnih Tasmata Niruchyate w.s.r to Urdhawaga Amlapitta - A Review Article

Author: Bishnupriya Mohanty¹

Co Authors: Vijay Kumar Mali² and Sangram Keshari Das³

¹⁻³Department of Sanskrit Samhita and Siddhanta, Gomantak Ayurveda Mahavidyalaya and Research Centre, Shiroda, Goa, India

ABSTRACT

Now a day's most of the people are attracted by westernization i.e. western food western lifestyle, sedentary lifestyle etc which is giving rise to impairment of *Agni* indirectly *Agnimandya* leading to formation of *Amavisha* or *Annavaha Strotas* diseases. *Amlapitta* is one of the *Annavaha Strotas* diseases arising due to *Amavisha*. It is characterized by qualitatively and quantitatively increased *Amla Guna* of *Pitta*. The cardinal classical clinical features of *Amlapitta* are *Avipaka*(indigestion), *Klama*(tiredness), *Utklesha*(nausea), *Tikta Amla Udagara* (sour and bitter belching), *Hrit Kantha Daha*(heat and throat burn) and *Aruchi*(anorexia). Based on clinical presentation it classified into *Urdhawaga* and *Adhoga Amlapitta*. *Ayurvedic* science helps for removing root cause of diseases, with the help of various *Shodhana*, *Shamana* treatment along with *Pathyapathya*. *Urdhawaga Amlapitta* can be correlated with gastroesophageal reflux disease. Symptoms of GERD include nausea, acid regurgitation, dyspepsia, fatigue, loss of appetite etc which are much more similar to *Urdhawaga Amlapitta*. Hence, here is an attempt to review more on *Urdhawaga Amlapitta*.

Key Words GERD, *Urdhawaga Amlapitta*, *Sama Pitta*, *Vidagdhajirna*

Received 11th June 22 Accepted 28th June 22 Published 10th July 2022

INTRODUCTION

“*Rogahah Sarveapi Mandagnou*”¹ means *Agnimandya* is pathophysiological factor in all diseases. *Amlapitta* is also caused due to *Jatharagnimandyatva*. *Prakruta Pitta* is of *Katu Rasatmaka* and *Vikruta* is of *Amla Rasatmaka*. Due to *Mandagni Prakruta Pitta Avastha* gets converted into *Vikruta Pitta Avastha*; then indigested food becomes *Vidhagdha* and *Pachaka Pitta* attains excessive *Amlata* and causes *Vidaha*. The prevalence of GERD in India ranges from 7.6% to 30%, being < 10% in most

population studies, and higher in cohort studies. The dietary factors associated with GERD include use of spices and non-vegetarian food. Improved understanding of the condition can lead to improved recognition of GERD, resulting in an apparent increase in its prevalence. Nonetheless, the influence of 'western food and lifestyle' adaption, such as increased obesity, decreased *H. pylori* frequency etc like causative factors need to exclude out to reduce the prevalence.² While heartburn and acid regurgitation are the most commonly reported symptoms of GERD,

REVIEW ARTICLE

laryngitis, pharyngitis, chronic sinusitis, dental erosions, asthma, and persistent cough are all important extra esophageal symptoms. As a result of stomach acid reflux into the throat and vocal cords, or down into the lungs, laryngeal or pulmonary symptoms such as laryngitis, hoarseness, non-cardiac chest discomfort, or asthma can occur.³ In Ayurveda, the symptoms of heartburn is known as *Hrit-Kantha* Daha. and a few comparable terminologies such as *Amlika* (pain and burning sensation in the retrosternal region and sour eructation), *Vidaha* (burning sensation during food digestion), and *Paridaha* (burning sensation inside the body, particularly in the *Mahasrotas*, i.e. the GI tract) are described in different frames of reference. Direct description of disease is not described in *Bruhatrayi* but terminology has been explained indirectly. *Kashyapa* gave a detailed description of *Amlapitta* and classified it on *Dosha* basis⁴. *Madhavakara* has classified as per *Gati*. GERD is generally diagnosed based on characteristic symptoms and the response to acid suppression following an empiric trial. GERD is a major public health problem since it is associated with reduced quality of life and substantial morbidity⁵. Successful treatment of GERD symptoms has been linked to considerable improvements in quality of life, including lower physical discomfort, enhanced energy, physical and social function, and mental well-being. While GERD medicines are not exceptionally expensive, the cost of treating GERD patients has been estimated to be two times that of equivalent

persons without GERD⁶. This cost disparity is most likely attributable to increased morbidity in GERD patients as well as the greater expense of addressing consequences of improperly treated GERD.

NIRUKTI / VYUTPATTI-

Am + Kl + Ach = Amlai.e sour

‘Amlam Ch Pittam Amlapittam’

Conversion of Pitta to Amliyarasatmaka is called Amlapitta.

‘Amlam Vidagdham Ch Tat Pittam, Amlapittam’ *Sushruta* has enlisted *Katu* as its original *Rasa* of *pitta* and mentioned that when *Pitta* becomes *Vidagdha* then it changes into *Amla Rasa* called as Amlapitta⁷.

‘*Vidahaadyaam*

Laghunodrikt

Ampittamamlapittam’

Ejection of Amliya and Vidahi Pitta from mouth is called Amlapitta.

Amlapitta is composed of two words, *Amla*+ *Pitta*. *Pitta* is a *Dosha* present in body and According to *Charak Amla* is a natural property of *Pitta* along with *Katu Rasa*⁸.

NIDANA PANCHAKA-

NIDANA:

The knowledge of *Nidana* is very essential for disease management. *Nidana Parivarjanam* is the important principle of treatment for Amlapitta. This occurs in the case of GERD also. It can be produced by one or more Aetiological factors. *Nidana* has got much importance in such chronic diseases. As long as the patient is exposed to the *Nidana*, the disease will persist. Therefore, a thorough understanding of the causative factors is

REVIEW ARTICLE

essential in the management. It has been said that a single etiological factor may produce a single disease or many factors together may produce a single disease⁹. After careful screening and analysis of the etiological factors of *Amlapitta*, they may be discussed under four groups viz. the *Aharaja Hetu* (dietary habits), *Viharaja Hetu* (habit factors), *Manasika Hetu* (psychogenic factors) and *Agantuka Hetu* (miscellaneous factors).

1. AHARAJA HETU (DIETARY FACTORS)¹⁰:

Dietary variables are the first and most important category of *Amlapitta* etiological factors to examine. Consumption of food in violation of the dietetics code, i.e. *Ahara Vidhi Vidhana* and *Aharavidhi Visheshayatana*, is included in this category. Various sorts of incompatible substances, an excess of Pitta aggravating elements such as *Katu*, *Amla*, *Vidahi*, etc., *Bharjitanna*, and untimely meal consumption are factors that violate the dietetic code and are directly responsible for *Pitta* disturbances.

2. VIHARAJA HETU¹¹:

To keep one's health, one must adhere to a set of rules. One is expected to have regular defecation habits, eat on time, and sleep on time. Aggressively natural desires should not repress. If one follows all of these regulations on a regular basis, Every try should be undoubtedly to preserve the equilibrium of the body's elements, and therefore, clearly, he will keep good health and appropriate bodily functioning. If this is not done on a regular basis, the entire functioning of

the body will be disrupted, resulting in a disruption of *Pitta* and digestive balance, which will eventually lead to *Amlapitta*.

3. MANASIKA HETU (PSYCHOLOGICAL FACTORS)¹²:

Psychology is equally important in sustaining one's health and psychological activity. An aberrant psychology, such as wrath, anxiety, or greed, on the other hand, might have an effect on digestive physiology. Either there is less production of digestive juice or it is released at inappropriate times, and sometimes it is secreted in excess. All of these factors worsen *Pitta*, which eventually leads to *Amlapitta*. Modern researchers have proven that acid gastritis is nothing more than a condition caused by stress and pressure, demonstrating the importance of psychogenic variables in the formation of *Amlapitta*.

4. AAGANTUKA HETU:

Iatrogenic illnesses are becoming more frequent these days. *Amlapitta* may be the result of a defective drug or drug misuse behaviors. Over-the-counter nonsteroidal anti-inflammatory medications and anticoagulants treat one illness but can cause *Amlapitta*. This can be caused by *Ayurvedic* medicines, particularly unpurified and defective *Rasa Aushadhi*. Even *Ushna* and *Tikshna* drugs, if administered excessively and without adequate illness assessment for an extended length of time, can cause *Amlapitta*. Similarly, *Panchakarmas* such as *Heena Yoga*, *Mithya Yoga*, and *Atiyoga* cause many ailments by targeting *Agni*, therefore *Amlapitta* can be

REVIEW ARTICLE

viewed as an *Upadrava* of certain other diseases such as chronic *Vibandha*, *Arsha*, *Ajirna*, and *Pandu*.

POORVARUPA:

In *Ayurvedic* classics, no specific *Purvarupas* of *Amlapitta* are mentioned, but by applying *Yukti* and practical knowledge, some important inferences can be drawn. *Annavaha* and *Purishavaha Sroto Dusti* symptoms can also be considered as *Purvarupa* of *Amlapitta*. *Acharya Charak* considered *Amlapitta* as symptoms of diseases, during description of *Grahani* he mentioned *Purvarupas* like *Trishna*, *Alasya*, *Balanasha*, *Annavidha*, *Gauravata* etc. these symptoms also can be considered as *Purvarupa* for *Amlapitta*¹³.

ROOPA:

Kashyapa, *Madhava Kara*, and *Harita* all reported *Amlapitta* symptoms. *Madhavkar* was

followed by other *Sangraha Kaala* practitioners such as *Bhavamishra*, *Vangasen*, and *Yogaratanakara*. *Basavaraja* has included *Amlapitta* in *Nanatmaja* illnesses of *Pitta* and *Vakshiva Paridosha*(*SaptamPrakarana*) to *Amlapitta* in this regard. According to *Madhava*, the symptoms of *Amlapitta* include *Avipaka*, *Kanthadaha*, *Klama*, *Tikta Amla Udgara*, *Gaurava*, *Aruchi*, *Utklesha*, and *Hrididaha*. *Kashyapa* added extra symptoms like¹⁴, *Antrakujana*, *Vidbheda*, *Udara Adhmana*, *Hrit Shula* etc.

Urdhwaga Amlapitta:

In this type the *Doshas* tend to have *Urdhwagati* hence features like *Hritkantadaha*, *Kukshidaha*, *Utklesha*, *Chardi* are predominant. These features of *Urdhwaga Amlapitta* mentioned by different authors are listed in Table below,

Table 1 Features of *Urdhwaga Amlapitta*

Sr.No.	Lakshanas	Y.R	B.M	V.S	M.K
1.	Vantam Haritam	+	+	+	+
2.	Vantam Peetma	+	+	+	+
3.	Vantam Neelam	+	+	+	+
4.	Vantam Krishnam	+	+	+	+
5.	Vantam Arunam	+	+	+	+
6.	Vantam Raktam	+	+	+	+
7.	Vantamateevamlam	+	+	+	+
8.	Vantam Mamasodakabham	+	+	+	+
9.	Vantam Atipichilam	+	+	+	+
10.	Vantam	+	+	+	+
11.	Shleshm Aanugatam	+	+	+	+
12.	Vantam Rasena Vividham	+	+	+	+
13.	Vantam BhuktevidagdheTiktavami	+	+	+	+
14.	Vantam Bhukte Vidagdheamlavami	+	+	+	+
15.	Vantam Bhuketiktavami	+	+	+	+
16.	Vantama Bhukteamlavami	+	+	+	+
17.	Tiktoudgara	+	+	+	+
18.	Amloudgara	+	+	+	+
19.	Hritdaha	+	+	+	+
20.	Kantadaha	+	+	+	+
21.	Kukshidaha	+	+	+	+
22.	Karadaha	+	+	+	+

REVIEW ARTICLE

23.	Charanadaha	+	+	+	+
24.	Ushnata	+	+	+	+
25.	Aruchi	+	+	+	+
26.	Jwara	+	+	+	+
27.	Kandu	+	+	+	+
28.	Mandala	+	+	+	+
29.	Pidaka	+	+	+	+

BHEDA-

1. According to Gati – *Dosha Gati* is called movement of *Dosha*. *Madhavakara* and *Yogratnakara* has described two types of *Amlapitta* as follows,

a.) *Urdhawaga Amlapitta* – When *Doshas* pathologically move in upward direction called as *Urdhawag Amlapitta*. *Chardi* is the main symptom. Colour of pitta are *Harita, Pitta, Neelaor Krushna, Aaraktavarna*. Other symptoms includes *Lavanasyata, Amlodgara, Vidaha, Sheerashoola, Hrutashoola, Aatopa, Hastapadadaha, Sarvangadaha, Jwara, Kandu, Mandalotapati*.

b.) *Adhoga Amlapitta*–*Doshas* pathologically move in downward direction is called as *Adhoga Amlapitta*. *Atisara* is the main symptom. Colour of *Pitta* are *Harita, Pitta, Krushna* and *Raktavarna*. Other symptoms includes *Trishna, Daha, Murcha, Shrama, Moha, Hrillasa, Mandalotpatti, Agnimandya, Romaharsha, Sweda*, colour of the body becomes yellowish etc.

2. According to involvement of *Dosha*–*Madhavakara, Kashyapa* and *Yogratnakar* divides *Amlapitta* in to,

a.) *Vatanubandhi Amlapitta* – *Kampa, Pralap, Murcha, Chimchimayan, Gatravasada, Shool, Tamadarshan, Vibhrama, Vimoha, Harsha*.

b.) *Kaphanubandhi Amlapitta* – *Kapha Nishthivana, Gaurav, Aruchi, Sheeta Sada, Dahan, Bala, Kandu, Nidradhikya*.

c.) *Vata Kaphanubandhi Amlapitta* – both *Vata* and *Kaphanubandhi Amlapitta* symptoms are seen

d.) *Kapha Pittanubandhi Amlapitta*– *Bhrama, Murcha, Aruchi, Chardi, Aalasya, Shiroruja, Praseka, Mukhamadhurya*.

SAMPRAPTI¹⁵:

Kashyapa explained that the *Nidana* causes the *Dosha Prakopa* especially *Pitta Dosha*. Here mostly *Drava Gunatamaka Pitta* increases leading to *Mandagni* and Vitiation of *Doshas* situated near *Amashaya*. Here formation of *Aamvisha* takes place due to *Aamvisha* ingested food becomes *Vidhagdha* and *Shuktibhava*. This *Vidhagdha* and *Shuktibhava* food create *Amlata* in *Aamashaya* and travels all over body produces symptoms according to the involvement of *Dosha* and *Gati*.

UPADRAVA¹⁶ –

Jwara, Panduta, Shotha, Bhrama, Atisara, Shoola, Aruchi and *Grahani Roga* are eight *Upadrava* as mentioned by *Acharya Kashyapa*.

SADHYASADHYATA¹⁷:

According to *Madhava Karawhen* the disease is of recent origin it is considered as *Yapya*, when

REVIEW ARTICLE

chronicity occurs it becomes *Kricchra Sadhya* and further *Asadhya*.

DIAGNOSIS:

Upper gastrointestinal endoscopy, also known as esophagogastroduodenoscopy, is the most often used diagnostic procedure for GERD and its potential consequences (EGD). Endoscopy has the major advantage of allowing direct sight of the esophagus mucosa. This aids in the identification of GERD problems such as esophagitis, strictures, and Barrett's esophagus. GERD is generally diagnosed by looking at the symptoms and how they respond to acid suppression. Heartburn with or without regurgitation is usually enough to rule out GERD, especially if the symptoms worsen post prandially or when lying down¹⁸. Treatment with histamine type 2 (H₂) receptor blockers or proton pump inhibitors (PPIs) followed by the disappearance of symptoms is regarded as diagnostic. In the absence of warning characteristics or symptoms, no additional workup is necessary in individuals who respond to empiric therapy.

TREATMENT:

According to *Acharya Charaka* almost all disease can be treated in 3 steps¹⁹:

1. **Nidana Pariwarjan:** Each and every treatment intervention that is usually disregarded by physicians and not followed by patients remains the cornerstone of *Nidanapariwarjana*. *Adhyasana* (often eating before digestion of previous meal), *Atibhojana* (eating too much food), *Guru*, *Abhishyandi*, *Vidahi*, tea, coffee,

tobacco, alcohol, smoking, citrus juices, tomato products, chocolate, peppermint, and a high-fat diet should all be avoided. *Vegadharana* (suppression of natural impulses), daytime sleep immediately after a meal and *Ratrijagarana* should all be avoided.

2. **Prakruti Vighata:** It refers to use of drug which suppress *Doshas*. Such treatment is called as *Shaman* therapy. The *Shaman* drug should be of *Madhura* and *Tikta Rasa*, *Snigdha Guna* and *Sheeta Virya* opposite to that of *Pitta Dosh*.

3. **Apakarshan /ShodhanaChikitsa:** In the treatment of *Amashayagata Vata*, *Sushruta* mentioned *Vamana* and *Charaka* mentioned *Virechana*. Both *Vamana* and *Virechana* aid in the purification of the disease's *Srotas* and *Udbhava Sthana*. Prior to *Shodhana* therapy, internal *Snehana* and *Swedana* should be administered to increase oesophageal motility and LES tone by pacifying *Vata* and enhancing *Vatanulomana*. *Virechana* is the final step in the *Pitta Dosh* eradication process. It can help treat *Kapha Dosh* that is connected with *Pitta Dosh* or located in the *Pitta Sthana*. *Virechana* clears the *Annavaha* and *Purishvaha Srotas*, increases *Agni*, and promotes *Vatanulomana* in addition to eliminating *Pitta*.

Aushadha Yoga commonly used in GERD:

ShankhVati, *Mahashankha Vati*, *Sanjeevani Vati*, *Lashunadi Vati*, *Avipattikar Churna*, *Hingwashtak Churna*, *Shaddharana Churna*, *Avipattikara Churna*, *Mulethi Churna*, *Shatavari Churna*, *Amalaki Churna*, *Kamdudha Rasa*,

REVIEW ARTICLE

Sutasekhara Rasa, Lilavilasa Rasa, Shatavari Ghrita, Drakshadya Ghrita, Pippali Khandam.

MODERN MEDICINES:

PPIs are commonly used to treat the GERD, some of given as follows:

- Omeprazole
- Esomeprazole
- Lansoprazole
- Rabeprazole
- Pantoprazole
- Dexlansoprazole
- Omeprazole with sodium bicarbonate

Lifestyle changes are still the most important part of any GERD treatment, yet they're often disregarded by doctors and ignored by patients. While patients indicate that cigarettes, chocolate, carbonated beverages, onion, tomato sauce, mint, alcohol, citrus juices, spicy, and fatty meals aggravate their GERD symptoms, there are no high-quality research that show the benefits of avoiding these foods or practices. A systematic review of clinical trials that looked at the impact of lifestyle changes on GERD symptoms, esophageal pH variables, or lower esophageal sphincter basal pressure found that there is either no evidence or only weak evidence that there is improvement in clinical or physiological parameters after quitting tobacco, alcohol, chocolate, caffeine or coffee, citrus, mint, or spicy food²⁰.

PATHYAPATHYA²¹

Annava: Yava, Godhuma, Purana Shali, MudgaYusha, Lajja Saktu,

Shakavarga: Karavellaka, Patola, Kushmanda,

Phalavarga: Amalaki, Kapitha,

Mamsvarga: Jangala Mansarasa,

Miscellaneous: Sita, Madhu, Narikela Udaka

APATHYA:

Aahara: Guru, Vidahi, Viruddha, Kulatha, Masha, Navanna, Tila, fermented foods,

Vihara: Vega Vidharana, Atapa Sevana, Chinta, Krodha, Shoka etc.

DISCUSSION

Ashtaahar Vidhi Visheshayatan²² and Aahar Vidhan²³ have important role in maintaining the equilibrium of body. Agnimandya give rise to Agnimandya, Ajirna and formation of Amavisha. These Amavisha gets mixed with Doshas mainly Pitta Dosha, gathers in Amashaya leads to manifestation of disease like Amlapitta. It is a disease of Annavaha Strotas so Aaharaja Hetu plays an important role. Due to excessive intake of Katu, Amla and Lavan Rasaby Samanya Siddhanta tend to increase Amla and Drava Gunatamaka Vriddhi in Pitta Dosha and ultimately produce Mandagni. Viharaja Hetu also plays an important role in vitiation of Pitta. Manasika Hetu causes impairment of Agni. Either there would be excessive secretion of Pitta or less secretion which leads to indigestion or finally land up into Amlapitta. In present era due to constant and excessive consumption of alcohol, tobacco etc process of digestion is hampered causing local irritation in stomach and causes Amlapitta. Pathya refers to Aahara and Vihara

REVIEW ARTICLE

which causes pacification of disease where as *Apathy* are first to exactly opposite of it causes aggregation and complication of diseases²⁴. According to *Yogratnakar Nidana*, *Aushadhi* and *Pathya* are equally important during treatment of diseases²⁵. As per him if we take medicine and doesn't follow proper *Pathya* than diseases get aggravated. When treating GERD in modern medicine they use PPI, Antacid. Prolonged usage produces many side effects. The last resort remains surgery. But in *Ayurvedic* medicine there are many *Kashaya Kalpana* as well as *Pancha Karma* procedures for removing root cause of disease.

Shodhana of *Srotas* should be targeted by *Vamana* and *Virechana*.

CONCLUSION

Gastro-esophageal reflux disease (GERD) is a chronic upper gastrointestinal tract ailment with significant morbidity and potentially decreased quality of life that is becoming more common across the world. It happens when stomach acid or contents flow backward into the esophagus. In *Ayurveda*, finding a direct link between GERD and the body is difficult, but we can compare sign and symptoms of GERD is with *Urdhwaga Amlapitta*. *Vata Prakopa*, *Udavarta (Urdhwagati)*, *Pittapakarsha* from its location, *Kapha Kshaya*, *Agnimandya*, and *Amlapitta* are some of the variables that cause *Doshadushya-Sammurchhna*, which leads to GERD. As a result, *Vatashaman/Vatanulomana*, *Pitta Shamaka*, *Agni Dipana*, *Amapachana*, and

REVIEW ARTICLE

REFERENCES

1. SarthVagbhata of Ashtanga Hridaya Marathi translatin by Ganesh Garde, Rajesh Prakashan, Pune, Nidansthan, chapter 12/1. Page no 197
2. Srinivas G, SharmaP, Shedding light on the epidemiology of gastroesophageal reflux disease in India—a big step forward, *Indian J Gastroenterol* (May–June 2011) 30(3):105–107.
3. Peter J, GERD pathogenesis, pathophysiology and clinical manifestations, *Cleveland clinic journals of medicine*, volume 70, supplement 5, November 2003.
4. Madhava Nidanam of Madhavakara Sanskrit commentary by Madhukosha, Chaukhambha Surbharti Prakashan, Varanasi, reprint 2006, Uttarardha, chapter 51/3-4. Page no 226
5. Revicki DA, Wood M, Maton PN, Sorensen S. The impact of gastroesophageal reflux disease on health-related quality of life. *Am J Med* 1998; 104:252-258.
6. Bloom BS, Jayadevappa R, Wahl P, Cacciamanni J. Time trends in cost of caring for people with gastroesophageal reflux disease. *Am J Gastroenterol* 2001; 96: S 64-69.
7. Susruta Samhita of Ayurveda Tattva Sandipika by Kaviraja Ambikadutta Shastri, Chaukhambha Sanskrit Sansthan, Varanasi, reprint 2015, Sutrasthan, chapter 21/11. Page no 116.
8. Charaka Samhita of Agnivesa with Caraka Chandrika hindi commentary by Dr. BrahmanandTripathi, Chaukhambha Surbharti Prakashan, Varanasi Sutrasthan, chapter 1/60. Page no 32
9. Charak Samhita, Nidana Sthana, *Apasmar Nidana Adhyay*, 8/24. Available from: <http://niimh.nic.in/ebooks/echarak> (Accesed on 3 jan 2021).
10. Sharma H, Kashyapa Samhita, 16/3-5. Chaukhambha Sanskrit Sansthan, Varanasi;2006.
11. Sharma H, Kashyapa Samhita, 16/6-5. Chaukhambha Sanskrit Sansthan, Varanasi;2006.
12. Tripathi B, Charaka Samhita, Vimanasthana, Hindi commentary Chaukhambha Sanskrit Sansthan, Varanasi, 2001.
13. Charakasamhita of Agnivesa with Carakachandrikahindi commentary by Dr. brahmanandTripathi, Chaukhambha Surbharti Prakashan, Varanasi Chikitsa Sthana, chapter 15/55. Page no 561
14. Sharma H, Kashyapa Samhita, 16/7-10. Chaukhambha Sanskrit Sansthan, Varanasi;2006.
15. Kashyapa samhita with Vidyoini Hindi commentary by Hemaraja Sharma, Chaukhambha Sanskruta Sansthan, 2002, Khillasthan, chapter 16/ 7-9 Pg.no. 336
16. Kashyapasamhita with Vidyoini Hindi commentary by Hemaraja Sharma, Chaukhambha Sanskruta Sansthan, 2002, Khillasthan, chapter 16/ 49 Pg.no. 338
17. Madhava Nidanam of Madhavakara Sanskrit commentary by Madhukosha, July 10th 2022 Volume 17, Issue 1 **Page 77**

REVIEW ARTICLE

- Chaukhambha Surbharti Prakashan, Varanasi, reprint 2006, Uttarardha, chapter 51/7. Page no 228
18. Dent J, Armstrong D, Delaney B, Moayyedi P, Talley NJ, Vakil N. Symptom evaluation in reflux disease: workshop background, processes, terminology, recommendations, and discussion outputs. Gut 2004;53 Suppl4:iv1-24.
19. Madhava Nidanam of Madhavakara Sanskrit commentary by Madhukosha, Chaukhambha Surbharti Prakashan, Varanasi, reprint 2006, Uttarardha, chapter 7/14. Page no 714.
20. Kaltenbach T, Crockett S, Gerson LB. Are lifestyle measures effective in patients with gastroesophageal reflux disease? An evidence-based approach. Arch Intern Med 2006; 166: 965-971.
21. Kashyapa Samhita with Vidyotini Hindi commentary by Hemaraja Sharma, Chaukhambha Sanskrit Sansthan, 2002, Khillasthan, chapter 16/ 38-40 Pg.no. 338.
22. Charaka Samhita of Agnivesa with Caraka Chandrika Hindi commentary by Dr. Brahmanand Tripathi, Chaukhambha Surbharti Prakashan, Varanasi, Vimansthan, chapter 1/21. Page no 662
23. Charaka Samhita of Agnivesa with Caraka Chandrika Hindi commentary by Dr. Brahmanand Tripathi, Chaukhambha Surbharti Prakashan, Varanasi, Vimansthan, chapter 1/24. Page no 665
24. Charaka Samhita of Agnivesa with Caraka Chandrika Hindi commentary by Dr. Brahmanand Tripathi, Chaukhambha Surbharti Prakashan, Varanasi, Sutrasthan, chapter 25/45. Page no 461
25. Yogaratnakara with Vidyotini Hindi commentary by Vaidya Laksmipati Sastri, ChaukhambhaPrakashan, Varanasi, reprint 2018, Jwarachikitsa. Page no 251.