



CASE REPORT

Ayurvedic management of Achalasia cardia: Case report

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Abstract

Achalasia cardia is an esophageal motility disorder characterised by hypertonic lower esophageal sphincter which fails to respond to the swallowing wave. Current invasive diagnostic methods and therapeutic approaches have advantages and disadvantages of their own. Discovering a feasible yet successful Ayurvedic remedy for Achalasia could be beneficial as the condition is nowadays common in society. As per Ayurvedic perspective, *srotovaigunya* or *khavaigunya* can be used to describe structural alterations in the esophagus. The *apana vata dosha vaigunya* followed by vitiation of other *dosha* can be considered as the main pathology involved in this case. Following this *agnimandya* and *aamasanchaya* may occur. So for the reversal of *samprapti*, proper *vata anulomana*, *pachana* and *deepana* are needed. Followed by the *brimhana* and *rasayana cikitsa* helps for maintaining the integrity of esophagus and prevent the recurrence of the symptoms. The changes in the clinical features of the patient can be assessed through standard Eckardt symptom score.

Introduction

Achalasia cardia is a rare motor disorder of the esophagus that typically present with slowly progressive dysphagia for solids and liquids and frequent regurgitation. Though Achalasia primarily refers to esophageal achalasia, it can also affect other parts of the digestive tract. Esophagus is the organ through which the food travels to reach the stomach for further digestion. Issues related to this primary route of food may affect the nutrition of the patient by not allowing him or her to receive vital nutrients via this route. Understanding of the esophagus as well as treatment of esophageal diseases is significant in clinical considerations. When identified early, the majority of esophageal disorders are treatable, avoiding further harm. This condition functionally involves the obstruction of gastroesophageal junction due to the degeneration of the myenteric plexus and vagus nerve fibers of the lower esophageal sphincter. ^[1] There is a loss of inhibitory neurons containing vasoactive intestinal peptide (VIP) and nitric oxide synthase at the esophageal myenteric plexus, but in severe cases, it also involves cholinergic neurons. ^[2] The exact etiology of this degeneration is unclear though many theories have been proposed. These theories include an autoimmune phenomenon, viral infection, and genetic predisposition. ^[3] Patients with achalasia frequently

experience dysphagia, either liquid or solid or both. This symptom is initially intermittent; however, as the disease advances, it progresses along with significant dilation of the esophagus, leading to burns and decomposition of the sigmoid esophagus with corresponding clinical symptoms.^[4] The main symptoms of Achalasia are dysphagia (difficulty in swallowing), regurgitation of undigested food, chest pain behind the sternum, and weight loss. Dysphagia tends to become progressively worse over time and to involve both fluids and solids. Coughing is a yet another problem that some people might experience when lying straight. The chest pain experienced, also known as cardio spasm and non-cardiac chest pain can often be mistaken for a heart attack. Saliva and other liquids remain trapped in the esophagus and can be inhaled into the lungs as aspiration. Since the symptoms of Achalasia are not always reliable for diagnosing the condition, diagnostic tests must be done when there is a clinical suspicion of Achalasia cardia. The ideal initial diagnostic procedure for Achalasia is a barium swallow or barium esophagogram. The typical achalasia barium swallow change is the appearance of the bird's beak. Upper endoscopy (esophagogastroduodenoscopy - EGD) is recommended in all patients with suspected achalasia or dysphagia to exclude premalignant or malignant lesions involving the esophagus.^[5] Esophageal manometry is the most sensitive test for the diagnosis of Achalasia and remains the gold standard.^[6] Treatment of Achalasia is to ease the symptoms of Achalasia by decrease the outflow of resistance caused by nonrelaxing and hypertensive lower esophageal sphincter. Right now there are a number of effective palliative treatments available for achalasia, each with pros and cons.

It is the responsibility of Ayurveda physician to frame a treatment protocol for Achalasia cardia as the condition is nowadays common in society. As per Ayurvedic protocol, correction of mechanical factors can be achieved through the practice of Ayurvedic principles in a systematic way. Any structural or functional concerns with the human body should be analysed from the perspective of fundamental components like *dosha* and *dushya*. The main clinical features of Achalasia cardia can be correlated with the impairment of *vata* functions.

Prana is situated in *murdha* and performs functions like *udgaara* (belching), *nisvasa* (respiration) and *annapravesa* (deglutition).^[7] *Udana* is the one situated in *uras* and functions include *vakpravritti* (speech), *prayatna* (enthusiasm).^[8] All motor functions of the body is carried out by *vyana vayu*.^[9] *Samana vata* is situated near to *jadaragni* and it receives food into digestive tract and digests it.^[10] *Apana vata* is helping for the *sukra artava sakrit* and *mootra nishkraman* (expulsion of semen,

menstrual blood, feces and urine).^[11] So impairment in these may lead to disturbance in motility of body. Disturbance in *pitta dosha* especially *pachaka pitta* along with *agnidushti* may cause the disturbance in digestive system. These may cause the symptoms like regurgitation of undigested food and burning sensation in chest etc. The structural changes in the esophagus can be considered as *srotovaigunya* or *khavaigunya*.^[12] This may occur due to different causes like external, *adhibala pravritta* and *janmabala pravritta karanas*.^[13] Esophageal structural alterations may serve as a site for *dosha sthanasamsraya*. The *dosha dushya samurcchana* leads to the further aggravation of symptoms like *tikta amlaudgara*, *hritkanda daha*. The symptoms are very much similar to *Amlapitta* disease in Ayurveda.^[14] Thus, in Ayurveda, Achalasia cardia cannot be referred to as a single disease entity. Discovering a feasible yet successful Ayurvedic remedy for Achalasia could be a beneficial endeavour in such an uncertain condition. This is an attempt to ascertain the potential course of treatment for an Achalasia cardia condition.

CASE HISTORY

Presenting complaints

- Difficulty in swallowing of solid and liquid food items, regurgitation of sour fluid and burning sensation in chest region after intake of spicy hot food, pain over chest region after intake large quantity of food since 2 years
- Coughing after intake of food and in lying position occasionally since 7-8 months
- Weight loss since 6 months.

History of presenting complaints

A 60 year old lean built male patient who was an accountant by profession and a known case of hypertension under medication since two years presented with difficulty in swallowing of solid and liquid food items, regurgitation of sour fluid and burning sensation in chest region after intake of spicy hot food, pain over chest region after intake large quantity of food since 2 years, coughing after intake of food and in lying position occasionally since 7-8 months and weight loss since 6 months. Two years back patient began to experience difficulties in swallowing of solid and liquid food after heavy meals. Subsequently he started to felt regurgitation of sour fluid and burning sensation in chest on intake of spicy hot food items, pain over chest region while consuming large quantity of food. However, the difficulties started appearing on a daily basis after six months. While eating, he felt something get stuck in his throat. For relief of symptoms he usually applied a massaging movement

downwards in chest region and getting up and walking around during and after meal time. He used to drink a lot of water after meals in order to move the food that had become lodged in his esophagus, even though this still precipitates difficulties. However, the sour fluid regurgitation got more severe after consuming water. He consulted an allopathic doctor and he began to take internal medicines. During this time period, he also observed that when stress develops, the burning sensation and symptoms similar to dysphagia is worsening. Along with medication he started to practice some breathing exercise to avoid stress. After taking the medications, his burning sensation in chest and fluid regurgitation were somewhat subsided. However, about seven or eight months before, he began to cough occasionally after eating and while lying down. On next visit doctor advised him for diagnostic upper gastroendoscopy. The endoscopic findings showed the roomy esophagus with pooling of saliva and resistant felt at GE junction. The doctor recommended diagnostic manometry for confirmation after making the provisional diagnosis of Achalasia cardia. After these entire diagnostic techniques doctor diagnosed it as Achalasia cardia and suggested for some surgical intervention. But he denied the surgical correction but continued the internal medication. To avoid the difficulty, he gradually began to cut down on the amount of food he consumed. Eventually the patient starts to experience weight loss. So he consulted our OPD for further management.

Clinical findings = Systemic examination: Gastro intestinal system

- A) Inspection : Mouth :Mouth ulcer ,chelitis - Absent
 Palate: Erythema -Absent
 Abdomen – Shape-Scaphoid
 Umbilicus-Inverted
 Skin over abdomen- No Pigmentation, Striae, Scar
 Movement of abdomen-Symmetrical
- B) Auscultation: Bowel sound-heard
- C) Percussion: Normal percussion notes
- D) Palpation: Muscle guarding-Absent
 Tenderness-Absent
 Organomegaly - Absent

DIAGNOSTIC ASSESSMENT

Currently, Achalasia cardia is mainly diagnosed using high-resolution manometry (HRM), endoscopy, and barium meal examination. ^[15] So based on the patients investigation reports and clinical features it can be diagnosed as Achalasia cardia.

By the clinical features it cannot be diagnose as a single disease entity in Ayurveda .So multiple level of approaches are needed for the treatment of the disease.

Samprapti ghatakas

Dosa-vata (prana,udana,samana,vyana,apana)

Pitta (pachaka)

Kapha (kledaka)

Dushya – Rasa, Rakta,Mamsa

Agni-Mandagni

Aama – Koshtagata

Srotas- Rasa , Anna

Srotodusti –sanga, vimargagamana, athipravritti

Rogamarga-Abhyanthara

Vyadhyvastha -Purana

Adhithana-Annavaahasrotas

The 60 year old male patient's parents might have some *annavaahasrodushti* in *sukra* and *sonitha (adibalapravritta)* or parents might have indulgence in *nidanans* that cause *annavaahasrotodushti (janambala pravritta)*. These *nidanans* might cause some *khavaigunya* in patient's *annavaahasrotas*. Due to the patient's *ahaaraja nidana* like *alpa ,rooksha* and *pramita bhojana* and suppression of natural urge like urine initially *apana vata dushti* might be occurred .This *prakupita apana vata* losses its *anuloma gati* and gets *pratiloma gati*. This upward direction of *apana vata* gradually afflicts *samana, vyana,udana* and *prana* in due course respectively. These *dushta vatas* localizes at the level of *annavaahasrotas* causes difficulty in movement of *ahaara* and *pana*. The delayed movement of *ahaara* into *amashaya* impairs the *agni* and this disturbs the *pachaka pitta* situated in between the *pakvashaya* and *amashaya* and *kledaka kapha* situated in the *amashaya*. *Agnidushti* with the *dushita vata pitta kapha* causes disturbance in further *pachana* of *ahaara* which subsequently causes a *sukta avastha* of *ahaara* in *amashaya* causing *amlapitta* symptoms like *tikta amla udgara* and *daha* in *uras pradesha*. The already vitiated *vatas* on its *pratiloma gati* localized in *kandapradesha* might be caused *vedana* in *uras* and *kasa*. Due to *agnidushti* and decreased intake of food, the proper transformation of *ahaararasa* to *rasa, rakta* and *mamsa* respectively gets hampered. So the *dhatupusthi* also gets impaired leading to *rasa ,rakta* and *mamsa kshaya* which ultimately resulted in weight loss.

TREATMENT GIVEN

Treatment is the scientific process of reversal of etiopathology (*sampraptivighatana*). He requires *Anulomana, Aamapachana, Deepana, Dosha sodhana, and Rasayana* to

relieve his symptoms and prevent the recurrence of the disease despite the fact that the *srotovaigunya* caused by *beejadushti* cannot be rectified.

Drugs given in this aspect -OP based treatment for two months

Table 1

Sl no	Medicine	Dosage and Time of administration
<u>Anulomana, pachana, deepana oushadhas</u>		
1	<i>Gandharvahastadi kashayam</i>	90 ml 6 am ,6pm before food
2	<i>Dhanwantaram tablet</i>	2-0-2 with <i>Gandharvahastadi kashayam</i>
<u>Pitta samana medicine to alleviate dushta pitta</u>		
3	<i>Avipatti choornam</i>	1 teaspoon choornam with honey ,two times after food
<u>Vyadhipratyanika cikitsa for the relief of tikta amla udgara ,daha in uras pradesa and kasa</u>		
4	<i>Vilwadi lehyam</i>	½ teaspoon two times before food
5	<i>Nayopayam kashayam</i>	90 ml 11am and 3 pm
<u>Brimhana rasyana cikitsa with medicines having properties of anulomana, pachana and deepana</u>		
6	<i>Ksheerabala 101 Avarti</i>	Frequently
7	<i>Rasnadasamoola grita</i>	Frequently

Changes before and after treatment

Symptom Assessment through Eckardt symptom score as a measure of Achalasia severity.^[16]

At the starting of treatment - Table 2

Recent wt loss	5-10 kg (score 2)	
Dysphagia	Each meal (score 3)	
Chest pain	Occasional (score 1)	Total score -9
Regurgitation	Each meals (score 3)	

After follow up of 2 months on OP based treatment & it's outcome –Table 3

Recent weight loss	None (score 0)	
Dysphagia	Occasional (score 1)	Total score -2
Chest pain	None (score 0)	
Regurgitation	Occasional (score 1)	

Discussion

Achalasia is a disease characterised by aperistalsis in the body of the esophagus and failure of relaxation of the lower esophageal sphincter on initiation of swallowing.^[17] As per the principle of Ayurveda, this mechanical defect occurs as a result of *vata pratilomata* or impaired function of *vata*.

Following this, various other symptoms also occur. The basic cause of *vatapratilomata* here is *apana vata vaigunya*, which should be addressed first to reverse this clinical issue. That is why; we have selected *Gandharvahastadi kashayam* with *Dhanwantaram gulika*, as a first line of treatment. *Gandharvahastadi kashayam* has a *vatahara* (pacification of vata), *agnideepana* (strengthen the digestive fire) and *malasodhana karma*^[18] and *Dhanwantaram Gulika* has a *vatanulomana* property.^[19] As we mentioned earlier, the *pitta dushti* happened following the *vata pratilomata* should be managed with some *pitta samana oushadhas* and hence we have given *Avipatti choornam*. Correction at these levels with these medicines also can initiate *pachana* and *deepana*. *Nayopayam kashayam* started for the purpose of *anulomana* of *udana* and *prana vatas* and also as a *vyadhipratyanika cikitsa* and helped for pacification of the *kasa*.^[20] *Vilwadi lehyam* is helpful for reducing the symptoms like *tikta amla udgara* and *kasa*. The structural and functional integrity of esophagus should be maintained and recurrence of the symptoms should be reduced with drugs that are having *brimhana rasayana* properties along with *anulomana, pachana* and *deepana*. That is why we have selected the other drugs like *Ksheerabala 101 avarti* and *Rasnadasamoola grita*. *Ksheerabala 101 avarti* has a property of *jeevana brimhana swarya*, *rasayana* and *indriya prasadanam*.^[21] *Rasnadasamoola grita* has *vatahara kasa swasa pratisyayahara karma*.^[22] Along with these medicines strict direction regarding *pathyas* in *ahaara* and *vihaara* has given. Patients' symptoms significantly decreased as a result of all these medications and dos and don'ts, as shown by the standard Eckardt Score. The score has reduced from nine to two and also patient's weight has increased from 58.9 to 64.5 kilogram. During this time period of Ayurvedic treatment, the patient gained weight, which was a definite indicator of improved food tolerance and less severe symptoms.

Conclusion

The case study shows that Achalasia cardia can be managed effectively with Ayurvedic medicines, after a proper assessment of the patient and the disease, based on Ayurvedic principles through the perspective of basic factors like *dosha* and *dushya*. The treatment focuses to maintain the normalcy of *vata dosha* followed by the involvement of other *doshas* in the pathogenesis. He requires *Anulomana, Aamapachana, Deepana, Dosha sodhana*, and *Rasayana cikitsa* to relieve his symptoms and prevent the recurrence of the disease. This present case clearly shows how well-being of living improved with relatively short-term management—roughly two months.

PATIENT PERSPECTIVE

The patient was pleased with the improvements that his health had achieved. He expressed satisfaction with the notable alleviation of symptoms.

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CONFLICTS OF INTEREST

There are no conflicts of interest.

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