Aayushi International Interdisciplinary Research Journal (AIIRJ)
UGC Approved Sr.No.64259
Vol - V Issue-IV APRIL 2018 ISSN 2349-638x Impact Factor 4.574

A Critical Review on the Etiopathogenesis and Treatment of *Kaphaja Kasa* (Chronic Bronchitis)

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Abstract

The excellency of Ayurveda over medical science is that it had not only mention Kasa as symptom in various disease but also described it as an independent vyadhi with its separate pathogenasis symptoms,sign,types and treatments. Kasa is one of the pranavaha srothodusti janita vyadhi which affects the normal life style. Kaphaja Kasa is a type of Kasa dominated by Kapha and Vatadusti. Chronic bronchitis is a pathological condition characterized by the chronic cough and excessive mucous secretion in the tracheo bronchial tree. Cigarette smoking, environmental pollution, unaccustomed occupational surroundings are major causes of chronic bronchitis. Even though it is not life threatening, but on triggering causes may lead to acute exacerbation of symptoms and may need immediate intervention. Kaphaja Kasa can be best compared with chronic bronchitis. The mucolids, expectorants and cough suppressants are fail to relive the chronic bronchitis, so there is a major role of Ayurveda in treatment of Kaphaja Kasa. Here an attempt is made to review causes, pathogenesis and treatment of Kaphaja Kasa w.s.r. to chronic bronchitis.

Key words: Kaphaja Kasa, Chronic bronchitis, Expectorants.

Introduction

Kasa is one of the disease explained in many *Ayurveda* texts. *Kasa* may be a symptom *(Lakshana)* associative to other disease and an independent disease, sometimes may develop as *Upadrava* of a disease. *Kasa* is broadly classified as *Ardrakasa* and *Shushkakasa* (1). Understanding and differentiating the *Kasa* is most important to treat the condition effectively. Chronic bronchitis is characterized by chronic cough with expectoration for at least three months of the year for more than two consecutive years(2) Prevalance of it is directly related to the prevalence of tobacco smoking and,in low and moddle income contries, the use of biomass fuels(3). Morphologic features of chronic bronchitis grossly, the bronchial wall is thickened, hyperaemic and odematous and microscopically histologic definition of chronic bronchitis by increased Reid index.(4).*Ayurveda* explains different approaches to treat the *Kaphaja Kasa* as *Nidanaparivarjana*, *Shamanoushadhi* and *Shodhana* are different modes of treatments. In contemporary medical system mucolytics expectorants and antibiotics are the choice of treatment in chronic bronchitis. As disease is chronic, patient has to use these medicines for long duration. Due to disease modification from time to time has created resistance to these medications, so *Ayurveda* have major responsibility to treat this condition.

Etiology of *Kaphaja Kasa* (Chronic Bronchitis)

Nidana of any disease can be classified as *Samanya* and *Vishesha*. *Charakacharya* had not explained the *Samanyanidana* for Kasa. As *Kasa* is one of the *Pranavaha Srotho Dustijanita Vyadi* and have similarity in etiopathogenisis with *Hikka* and *Shwasa*, so *Pranavahasrotho dusti Nidana* and *Hikka Shwasa Samanya Nidana* can be considered as *Kasa and Kaphaja kasa Samanya Nidana*, like *Dhum,RajaVyayam,Rukshanna , Bhojan Vimargagaman, Kshvathu vegavrod*(5). Intake of *Guru, Abhishyandi, Madhura,Snigdha Ahara, Divaswapna* and *Achesta* are explained as *Kapajakasa Vishesha Nidana* [6.] These will act as *Dosha Hetu, Vyanjaka Hetu,* even *Uthpadhaka Hetu*. These causes will set the *Samprapthi* of *Kaphaja Kasa* and sometimes these will also act as triggering factors leading to exacerbation of symptoms. Cigarette Smoking,air

pollution , Occupational exposure to inorganic or organic dusts or noxious gases ,recurrent respiratery infection in childhood ,familial and genetic factors(alpha-1 antitrypsin deficiency),low birth weight(7).The long term indulge in these *Nidana* will cause the *Kasa* and these will also act as triggering factors.

Samprapti of *Kaphaja Kasa*

Samprapthi of *Kaphaja Kasa* can be divided as *Avasthika Samprapthi* and *Vega Kalen Samprapti*. The causes have tendency to vitiate both *Vata* and *Kapha*. *Udana Vatadusti* and *Kaphadusti* is initial stage of *Samprapti*. Function of *Udanavata* will be obstructed by *Kapha* and these *Dosha* will take *Stanasamshraya* in *Uraha, Kantha* and *Shiras*. At *Vegakala Vyanjakahetu* like *Raja, Dhuma, Shithambu* will precipitate the *Samprapti* leading to *Aardra/ kaphajakasa Vega*, where *Kasa* is associated with *Nishtivana*.

Etiopathogenesis of Chronic Bronchitis

Chronic Bronchitis is defined clinically as persistent cough with expectoration most of the days for at least three months of the year for two or more consecutive years(8) Etiological factors causes thickened, edematous, hyperaemic bronchial wall which reduces lumina of the bronchi and bronchioles which contain mucous or muco purulent exudates. The main pathological changes that takes place in the trachea bronchial tree are increased Reid index. Reid index is the ratio between thikness of the submucosal mucus glands (i.e.the hypertrophy, hyperplasia) in the cartilage-containing large airway to that of total bronchial wall. The increase in thikness can be quititatively assessed by micrometer lens or by morphometry. The bronchial epithelium may show squmous metaplasia and dysplasia.There ia little chronic inflamatoey cell infiltrate. The non-cartilage containing small airway show goblet cell hyperplasia and intra luminal and peribronchial fibrosis (9).

Pathophysiology

COPD (in chronic bronchitis) has both pulmonary and systemic components. The presence of airflow limitation,combined with premature airway clouser,leads to gas trapping and hyperinflation, reducing pulmonary and chest wall compliance.Pulmonary hyperinflation also flattens the diaphragmatic muscles and leads to an increasingly horizontal aligment of intercostals muscles,placing the respiratory muscles at a mechanical disadvantage.The work of breathing is therefore markedly increased,first on exercise, when the tie for expiration is further shortened,but then ,as the disease advance,at rest(10)

Samprapti

Nidan
↓
Udan vayu&Kapha dusti
↓
Kaphavrut Udana
↓
Sthan Samshraya in Urah,Kantha,Shira
↓
Aardra (Kaphaja Kasa)

Awastik Samprapti

Vega Kalena Samprapti — *Vyanjaka hetu*

Productive cough usually exacerbate after colds during winter season, which show steady increase in severity and duration with successive years until cough is present all the year round. There after development of exertional breathlessness with morning cough and wheeze which is due to increased bronchial obstruction by the inflammatory pathology and repeated respiratory tract infection in the tracheo bronchial tree. Breathlessness is aggravated due to various etiological factors such as infection, cigarette smoking and atmospheric condition.

Types of Chronic Bronchitis (11)

This classification is based on the severity of the illness or the extent of involvement of the pathological changes, thus it can be classified into,

a) Simple Chronic Bronchitis

b) Mucopurulent Bronchitis

c) Chronic obstructive Bronchitis

Clinical feature of *Kaphaja Kasa*

Kasavega (cough) is cardinal symptom of *Kasaroga*, which will be present in all types of *Kasa*. The differentiating symptoms of *Kaphaja Kasa* help to make more precise diagnosis. Clinical symptoms of *Kasa* can be again divided as *Avasthika Lakshana* and *Vegakalen Lakshana*. Even symptoms can be segregated as *Sarvdiaheka Lakshana* and *Urdvajathrogatha Lakshana*.

***Bahala Madhura Snigdha Ghana Nishtivana* (12)**

This is the *Pratyatama Lakshana* of the *Kaphaja Kasa*. Where relatively more quantity of sputum will be produced comparing to other types of *Kasa*. The character of sputum will be *Ghana*, *Snigdha* and *Madura*. These *Lakshana* are in accordance with *Kaphadosha Guna* like *Guru, Manda, Snigda, Slakshna, Sandra* etc.

***Mandagni* (13)**

Dravyatha and *Gunatha Kaphadusti* in *Aamashaya* will lead to *Mandagni*.

***Aruchi* (14)**

Vata, Pitta and *Kapha* separately or all together when lodges in *Jihwa* and *Hridaya* or due to non availability of *Manoanukula Ahara* inturn causes *Aruchi*.

***Chardi*(15)**

Vitiated *Kapha* which will produce the excessive act of coughing which in turn produce increased abdominal pressure which will cause expulsion of the contents outside from the stomach.

Pinasa (16)

According to commentator *Dalhana Pinasa* is *Prana Vayu Prakopa Janitha Vyadhi*. In *Kaphaja Kasa* due to the *Pranavaha Sroto Dusti* and vitiation of *PranaVayu*, the patient may suffer from *Pinasa*.

***Gaurava* (17)**

This is feeling of the heaviness which is due to the increase in the quality of the *Kapha* such as *Guru, Snigdha,* and *Picchila Guna*. This can be understood as heaviness of the body or the heaviness of the chest due to increased secretion in the *Pranavaha Srotas*.

***Asyamadhurya / Mukhapralepa / Kantaupalepa*(18),(19),(20)**

Sweetness in the mouth is distinct indicative of *Kaphadosha*. Increase in the *Picchilaguna Vriddhi* in the *Kapha Dosha* will cause adherence in the oral cavity or the pharynx.

***Kasamanoruk Vaksha*(21)**

Even though *Kapha* is predominant *Dosha* in *Kaphaja Kasa*, there will be involvement of *Vata* also. *Sthanasamshraya* of *Vata* in *Urah, Kanta, Shira* will lead to the symptoms like pain in chest region, headache and sore throat.

***Shiroruja*(22)**

From *Vegavarodha* there will be a *Prakupita Vayu* which inturn gets *Pratiloma Gati* of *Vayu* gets *Sanchita* in *Murdhavaha Siraas* and causes *Shiroruja*.

***Kanthakandu*(23)**

The *Kleda* and *Sheetatwa* produced by *Karmatmaka Vriddhi* of *Kapha* leads to these symptoms.

***Swarabheda*[24]**

The *Gala Talulepa* by the aggravated *Kapha* and vitiation of *Udana Vayu* isresponsible for the *Swarabhedha*.

Chikitsa

In treatment of *Kaphaja Kasa* there is a need of different mode of approaches at different stages.Most of time multi treatment protocol has to be adopted.

At first ,the patient of *Kaphaja kasa*,if strong, should be evacuated with emesis*(Vaman)* and then managed with edibles made of barley,pungent,rough and substances and other *kapha*-decreasing items(25)

Patient may drink honey(mixed with water),sour drinks warm water butter milk,or harmless alcoholic drinks.(26)

Nidana Parivarjana

It is most important aspect of treatment. Person with *Kaphaja Kasa* has to avoid triggering factors like smoking, dust inhalation etc. some time person has to make some modification in his occupations to avoid these *Nidana* like mask wearing; avoiding Air Conditioned environment etc. patient should be more conscious during cold/winter seasons and during travel to cold atmosphere.

Samshamana

There are many single drugs, Kastoushadhi and *Rashoushadis* are indicated for *Kaphaja Kasa*. These have *Katu, Ushna, Tikshna, Sukshma, Chedana, Kaphanissaraka, Kasagna Guna. Trikatu, Pippali, Kantakari Avaleha, Agastya Haritaki , Kapha Ketu Rasa, Agastyavaleha, Vyghri Haritaki Avaleha* are beneficial in *Kaphaja Kasa*. *Pippali* and *Agasthya Harithaki Yoga* can be used as *Rasayana* in Kaphaja Kasa.

Shodhana

The first line of *Shodhana* in *Kaphaja Kasa* is *Vamana*. *Vamana* will expel the *Dushita Kapha* and relive the *Aavarana* to *Vata* giving more and effective result in *Kaphaja Kasa*. The *Virechana* can be planned in *Vata, Pittanubandha.* Here Vata should be controlled to relive *Vedana* in *Urah* and *Parshva*. *Nasya Karma* is helpful because the *Sthnasamshraya* is in *Urdhvajatrugata. Virechana* and *Nasya* have minimal role in *Vegakalen* and *Bahudoshaja Kaphaja Kasa*. In *Avasthika Kala* these can be adopted as per the *Yukthi* of physician. If *Bahudosha* and *Amashyagatha Kaphaja Lakshana* are noticed *Sadhyovamana* can be adopted rather than classical *Vamana*. *Kavalagrha, Dhumapana* are also helpful in condition of *Kaphajakasa*. After the *Vamana, Tikshana Dhumapana* will helpful in *Kaphajakasa*.

Conclusion

Kaphaja Kasa is one of *Pranvaha Srothodusti Janita Vyadhi* where *Kasavega* is associated with *Bahala Ghana Nishtivana. Kaphaja Kasa* can be studied parallely with contemporary understanding of chronic bronchitis. The causes and symptamatology of both *Kaphaja Kasa* and chronic bronchitis mimics each other so these can be best correlated. *Nidana Parivarjana,* different *Shamnoushdhi* and different modes of *Shodana* will help in treating the *Kaphajakasa*.

Probably these *Shamana* drugs act as cough suppressant, expectorants and mucolytic. In future scope there is a need to prove the action of these *Shamana* drugs clinically and pharmacologically.

References

1) Agnivesha, Charaka Samhitha, revised by Charaka and Dridabala with Ayurveda dipika commentary of Chakrapanidatta, editor by Yadavji Trikamjiacharya, Chikithsasthana, ed.2010,Chaukamba Krishnadas Academy,Chaukhamba Sanskrit seris office, Varanasi, 2010:18/8;539

2) Siddharth N.Shah,M.Paul Anand,API Textbook of Medicine,published by The Association of Physician of India,Mumbai,8th edition.2008:361

3) Brain R.Walker,Nicki R.Colledge,Stuart H.Ralston et.al, Davidson's principles and practice of Medicine, Chuchill Livingstone,Elsevier, 22th ed. 2014:673.

4) Harsh Mohan, Textbook of pathology, New Delhi,Jaypee Brothers Medical Publishers, 5th ed, 2008:459

5) Sushruta, Sushruta Samhita, with Nibhandha Sangraha comentary by Dalhana, foreword by Acharya Yadavji Trikamji. 8th edition. Choukhamba Sanskrit Sansthan, Varanasi, 2005,Uttartantra 52/4

6) Agnivesha, Charaka Samhitha, revised by Charaka and Dridabala with Ayurveda dipika commentary of Chakrapanidatta, editor by Yadavji Trikamjiacharya, Chikithsasthana, ed.2010,Chaukamba Krishnadas Academy,Chaukhamba Sanskrit seris office, Varanasi, 2010:18/17;540

7) Siddharth N.Shah,M.Paul Anand,API Textbook of Medicine,published by The Association of Physician of India,Mumbai,8th edition.2008:361

8) Harsh Mohan, Textbook of pathology, New Delhi,Jaypee Brothers Medical Publishers, 5th ed, 2008:458

9) Harsh Mohan, Textbook of pathology, New Delhi,Jaypee Brothers Medical Publishers, 5th ed, 2008:459

10) Brain R.Walker,Nicki R.Colledge,Stuart H.Ralston et.al, Davidson's principles and practice of Medicine, Chuchill Livingstone,Elsevier, 22th ed. 2014:673-74

11) Text Book Medicine Cecil pg no386-394

12),13),14),15),16),17),18) Agnivesha, Charaka Samhitha, revised by Charaka and Dridabala with Ayurveda dipika commentary of Chakrapanidatta, editor by Yadavji Trikamjiacharya, Chikithsasthana, ed.2010,Chaukamba Krishnadas Academy,Chaukhamba Sanskrit seris office, Varanasi, 2010:18/18-19;540

19) Vagbhata, Ashtanga Hrdayam. Sarvangasundari commentary of Arunadatta and Ayurveda Rasayana commentary of Hemadri, Edited by Bhishagacharya Harishastri Paradakara Vaidya, 9th Edition. Choukhambha Orientalia; Varanasi. 2005:470.

20) Sushruta, Sushruta Samhita, with Nibhandha Sangraha comentary by Dalhana, foreword by Acharya Yadavji Trikamji. 8th edition. Choukhamba Sanskrit Sansthan, Varanasi, 2005:766.

21) Agnivesha, Charaka Samhitha, revised by Charaka and Dridabala with Ayurveda dipika commentary of Chakrapanidatta, editor by Yadavji Trikamjiacharya, Chikithsasthana, ed.2010,Chaukamba Krishnadas Academy,Chaukhamba Sanskrit seris office, Varanasi, 2010:18/17;

22) Vagbhata, Ashtanga Hrdayam. Sarvangasundari commentary of Arunadatta and Ayurveda Rasayana commentary of Hemadri, Edited by Bhishagacharya Harishastri Paradakara Vaidya, 9th Edition. Choukhambha Orientalia; Varanasi. 2005:

23) Sushruta, Sushruta Samhita, with Nibhandha Sangraha comentary by Dalhana, foreword by Acharya Yadavji Trikamji. 8th edition. Choukhamba Sanskrit Sansthan, Varanasi, 2005:

24) Vaidya Shodala, Gadanigraha, edited by Ganga SahayePandeya, 1st ed. Choukhambha Sanskrit Sansthan, Varanasi, 2nd part, 1969:335.

25) Cakradatta,edited and translated by Priya Vrat Sharma,Chukhambha Orientalia Publishers Varanasi,edition:2007.page no137,

26) Charak Samhita,based on Cakrapani Datta'sAyurveda dipika,by Dr.Ram Karan Sharma &Vaidya Bhagawan Dash ,Vol.4 ,Chowkhamba Sanskrit Seris office,Varanasi,edition,reprint,2005:183