

**AN AYURVEDIC PERSPECTIVE ON BRONCHIECTASIS: A  
COMPREHENSIVE APPROACH****Archana Sam<sup>\*1</sup>, Arun Pratap<sup>2</sup> and Lekshmi R.<sup>3</sup>**<sup>1</sup>PG Scholar, <sup>2</sup>Professor and HOD, <sup>3</sup>Associate ProfessorDepartment of Kayachikitsa, Pankajakasthuri Ayurveda Medical College and PG Centre,  
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Kerala, India.**ABSTRACT**

Bronchiectasis is a chronic respiratory condition characterized by abnormal dilation of the airway. This can be understood from Ayurvedic perspective through *Dosa*, *Dhathu* and *Srotas*. This review explores a comprehensive Ayurvedic approach to bronchiectasis focusing on pathogenesis and management. Initially involving Pitta predominance and later advancing to *Vata Prakopa* and *Dhatu Kshaya*. The management include correcting the *Agni*, *Tikta Rasa*, *Raktaprasadana Madhura Rasa* and *Brimhana*. The Ayurveda offers holistic approach, addressing both symptomatic management and underlying the pathological process.

**KEYWORDS:** Bronchiectasis, Vata Prakopa, Dhatu Kshaya.**INTRODUCTION**

Global Lung Health Organization declared July 1 as “World Bronchiectasis Day” to raise awareness about increasing prevalence of bronchiectasis and to promote better diagnosis and treatment.

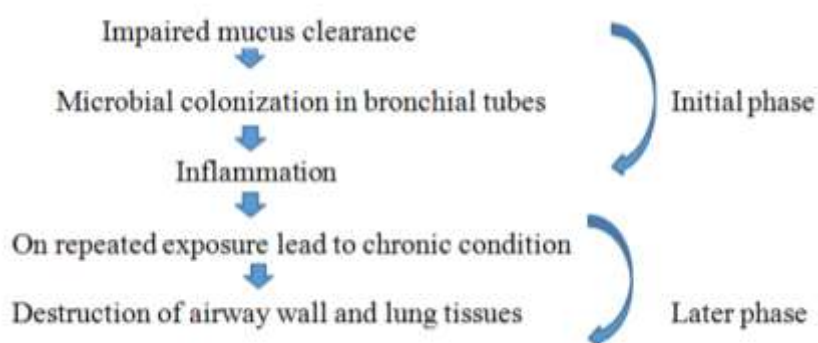
Bronchiectasis is a chronic debilitating respiratory condition that affect at all ages. In Ayurveda, bronchiectasis cannot be cross linked to specific *Vyadhi* but it can be understood through the *Dosha*, *Dhatu* and *Srotas*. In which, it can be placed under *Pranavaha Sroto Dushti Vikara* spectrum. This article focus on the Ayurvedic understanding of bronchiectasis especially on the pathogenesis and treatment according to the symptoms as well as prevention of progression.

## AIMS AND MATERIALS

1. To understand bronchiectasis in Ayurveda
2. To discuss pathogenesis, management of bronchiectasis in Ayurveda.

## REVIEW ON BRONCHIECTASIS

Bronchiectasis is a chronic lung disease that causes permanent damage and widening of the airways.<sup>[1]</sup> It is placed under Obstructive Lung Disease. Causes of bronchiectasis can be acquired and congenital. Acquired causes include recurrent respiratory infection, aspirated foreign body and congenital causes include cystic fibrosis. Pathophysiological mechanisms include:



Clinical features includes cough, Dyspnea, Fever, Hemoptysis. On physical examination include inspection clubbing of the finger is seen. On auscultation, crackles due to mucus plugging and wheezing due to airway obstruction is heard. Sputum culture is done to identify the specific pathogens which helps to select appropriate antibiotic therapy. Bronchoscopy reveal enlarged and distorted airways, mucus plugging within bronchial passages. On radiological findings reveals honeycomb appearance on chest x ray and signet ring sign due to airway dilation, bronchial wall thickening on CT Chest. Pulmonary Function Test is mainly done to know the extend and severity of lung dysfunction. The test include Spirometry where FEV1/FVC ratio is less than 70% indicates airflow limitation and presence of obstruction. There is reduced Peak Expiratory Flow Rate, while lung Volume shows an increase in Total Lung Capacity, Residual Volume, and Forced Respiratory Capacity.

Treatment of bronchiectasis include conservative treatment like antibiotic therapy which helps to control bacterial infections and reduced inflammation in the airway. Physiotherapy include airway clearance techniques and breathing exercise which helps to improve lung function and promote airway clearance. Bronchoscopy as a therapeutic purpose helps to remove mucus plug

or foreign objects, performing bronchial balloon dilation and administering the antibiotics. When conservative treatment fails surgery is opted.

Although there are a wide range of treatments available, they do not address the underlying cause of disease and also prolonged use of medication like steroids, bronchodilators lead to further lung tissue damage. Whereas in Ayurveda it address these limitation which is being discussed below.

## DISCUSSION

While analysing the etiopathogenesis of Bronchiectasis in ayurveda, *Nidana* like *Raja Dhuma Upaghata* (dust particles, fumes) can be cross linked to recurrent respiratory infection and foreign body. This serve as a primary irritants, leading to *Pitta Dosha* vitiation with *Ushna Guna* causing vitiation of the *Kapha Dosha* which accumulates in the *Pranavaha Srotas* especially in the *Uras*(Chest), causing the *Sotha* (inflammation of the mucous membrane and tissue) in the *Swasananali*(Bronchial tube). Due to the *Ushnata*(Hotness) causes *Vilayana* of *Kapha* leading to obstruction to the *Gati* of *Vata* leading to congestion and stasis in the airways. Due to the *Ruksha*(Roughness) *Guna* of vitiated *Vata* causes *Soshita Kapha*. So inorder to remove the *Soshita Kapha* obstructing the *Pranavaha Srotas*, particularly in the bronchi, there develops *Kasa*(Cough) as the body attempt to clear the blocked channels and remove the obstructed *Kapha*. The persistent *Kasa* (Cough) which result from the obstruction causes *Kshata* to the *Raktavaha Srotas* leading to rupture of the blood vessel in the respiratory tract. This manifests as blood mixed with sputum (Hemoptysis) which is a common symptom in bronchiectasis due to repeated strain on the bronchial walls. In the later stages, due to *Ruksha* and *Khara Guna* of vitiated *Vata* begin to cause the *Kshaya* of *Avalambhaka Kapha*, normally it ensures the stability and strength of the bronchial wall. Due to the *Kshaya* of this *Kapha* leads to the weakening of the bronchial wall's structural integrity. And also due to *Chala Guna* of vitiated *Vata* further exacerbates the condition by bronchial dilation and damage. This repeated dilation weakens the bronchial walls leading to permanent widening. *Ruksha Guna* of vitiated *Vata* causing *Mamsa Dhatu Kshaya* leading to the destruction of the lung tissue.

The initial phase of pathogenesis of bronchiectasis there is *Pitta* involvement so inorder to counteract the vitiated *Pitta*, correct the *Agni*, *Tikta Rasa*, *Rakta Prasadana*, *Seeta Virya* properties of *Aushadha* have to be implemented. In later stage, there is *Vata* predominance and *Dhatu Kshaya*, so with *Snigdha*, *Brimhana* properties helps in pacifying the *Vata* and

restoring the tissue integrity mainly *Rasayana* can be given. *Kshayaja Kasa Cikitsa* includes correcting the *Agni* and *Brimhana* therapy. *Kshayaja Kasa* with *Jwara* should be given *Ksheera* prepared with unripe *Yava Choorna* with *Sarpi*. In *Ksheena Avastha*, *Sarpiguda* can be given. *Urakshata Chikitsa* includes *Laksha Prayoga* like *Laksha* with milk and *Madhu* after digested food mixed with milk and sugar. *Laksha* with *Sura* in less *Agni*. For *Sandhana*, *Laksha* with milk boiled with *Candana*, *Padmakesara*, and *Bisagranthi*. *Nagabala Prayoga* with half *Karsha* of *Nagabalamula* should be boiled with milk and should be prescribed on the first day. Everyday half *Karsha* should be increased and on eighth day the dose become one *Phala* and to be continued for one month. On getting hunger one should consume only *Ksheera*.

In later stage, we can see the permanent damage in which *Yuktivyapasaraya Chikitsa* can be employed mainly addressing the permanent damage to lung tissue using supportive and symptomatic therapies, *Lakshanika Chikitsa* can be implemented which is described below:

**Hemotypsis:** *Tikta Madhura Rasa*, *Stambhana* properties of drug to be used. Here it act like vasoconstriction which result from contraction of the muscular wall of the vessel. This help in controlling this condition in bronchiectasis. *Madhuadi Gana* which is a *Shonitasthapana Dasemani* and also *Aindrinyadi Gana* which is a *Balya Dasemani* is useful in this condition.

**Destruction of wall and lung tissue:** *Madhura Rasa*, *Balya* properties of drug are suitable here. *Ghrita*, *Lehya*, *Rasayana Prayoga* helps in strengthening the walls and lung tissue and also in preventing further damage of walls and lung tissue. *Kshirinyadi Gana* which is a *Brihmaniya Dasemani* and also *Aindrinyadi Gana* which is a *Balya Dasemani* in its *Ghrita* or *Lehya* form helps in pacifying the condition.

## CONCLUSION

Bronchiectasis is an extreme form of Obstructive Lung Disease, in which quality of life is impaired. In *Ayurveda*, it can be understood as initially involving *Pitta* predominance and later advancing to *Vata Prakopa* and *Dhatu Kshaya*. The initial stage should focus on correcting the *Agni*, *Tikta Rasa*, and *Raktaprasadana*. As the condition progresses, *Madhura Rasa*, *Brimhana Chikitsa* become essential. This treatment protocol address both curative and preventive aspects aiming to improve the quality of life and manage the progression of the disease.

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