CHRONIC BRONCHITIS AND HOMOEOPATHY

# ABSTRACT

Due to the increase in environmental pollutants, cigarette smoking and other harmful influences, the incidence of COPD has increased dramatically in the last few decades. It has become the most common cause of death worldwide. Homeopathy offers promising treatment for chronic bronchitis. According to the literature, treatment is curative rather than palliative.

# KEYWORDS

Chronic bronchitis, chronic obstructive pulmonary disease, homeopathy, smoker's disease.

# CORRESPONDING AUTHORS:

**Dr. Vineeta Singh** B.H.M.S., M.D. (assistant prof.)

Param Himalaya Homeopathic Medical College and Hospital, Doiwala, Dehradun (U.K.)

**Dr. Amit Singh** B.H.M.S., M.D. (doctor)

State Homoeopathic Dispensary Bhagtowali mazra Roorkee (U.K.)

**INTRODUCTION:** Chronic bronchitis is one of the two primary lung diseases categorized within COPD. Clinically, it is defined as the persistent presence of a cough with the production of phlegm on most days for at least a quarter of the year, recurring for two or more consecutive years. This chronic condition is characterized by an ongoing and progressive inflammation of the bronchial tubes in the lungs. Chronic bronchitis is considered one of the two main forms of chronic obstructive pulmonary disease (COPD) and is clinically identified by a continuous cough that results in the production of sputum (phlegm) for a minimum of three months during two consecutive years. It is marked by a persistent, productive cough that generates an excess of mucus. Bronchitis is a highly debilitating illness with the potential for severe complications and can be life-threatening, especially when it co-occurs with emphysema, another critical respiratory disorder, within the spectrum of COPD. As stated by the National Heart, Lung, and Blood Institute, COPD ranks as the leading cause of disability and the fourth leading cause of death in the United States.

Chronic bronchitis typically originates from smoking, although it can also occur due to the prolonged inhalation of other lung irritants. This condition primarily manifests when irritants enter the respiratory system, progressing through the bronchi, the smaller passageways that branch off the main airway connected to the mouth and nose. Normally, air and essential oxygen travel through these bronchioles into the alveoli, tiny sac-like structures within the lungs where oxygen is absorbed into the bloodstream. When the air becomes contaminated with smoke or irritants, it inflicts harm on the lungs and disrupts their capacity to effectively absorb oxygen. Prolonged exposure to irritants results in persistent irritation and inflammation of the bronchi, leading to excessive mucus production and thickening of the bronchial walls, ultimately obstructing the flow of air to the lungs. Over time, the lungs become scarred and endure chronic damage, leading to the development of a persistent cough. The increased mucus production and inflammation in chronic bronchitis also create an ideal environment in the lungs for bacteria and viruses, potentially leading to severe and life-threatening infections like pneumonia. Lung infections can further exacerbate chronic bronchitis.

The longer your lungs are exposed to smoke or irritants, the more likely you are to develop chronic bronchitis. Chronic bronchitis can affect people of all ages.

This condition is more common in:-

* Middle and late adulthood.
* More in men than in women.
* More in smokers than non-smokers.
* More in urban than rural residents.

This is a highly debilitating condition with the potential for significant complications and even fatality, particularly when it coexists with emphysema, another severe respiratory ailment and a type of COPD. According to data from the National Heart, Lung, and Blood Institute, COPD is the primary cause of disability and ranks fourth in the leading causes of death in the United States. Chronic bronchitis predominantly arises due to smoking, but it can also result from the extended inhalation of other lung irritants. Factors such as atmospheric pollution, occupational exposure (such as cotton-related work), infections, family history, and genetic predisposition can also contribute to its development. The longer one's lungs are exposed to smoke or irritants, the higher the likelihood of developing chronic bronchitis. This condition should be considered in any patient over the age of 40 who presents with persistent cough, accompanied by substantial and prolonged sputum production, recurring respiratory infections, breathlessness, often with exertion, cyanosis, and edema (referred to as "Blue Bloated" in patients). In some cases, hemoptysis can further complicate the condition.

Investigations for suspected chronic bronchitis included:

**Chest X-ray**: Anterior and lateral chest X-rays reveal signs of hyperinflation, including flattening of the diaphragm, enlargement of the retrosternal air space, and a long, narrow cardiac shadow.

**Electrocardiography**: May show features of right atrial and ventricular hypertrophy.

**Pulmonary function test:** These measurements are necessary to diagnose and assess the severity of the disease and help monitor its progress.

FEV1 is a consistently reproducible test and serves as the most prevalent indicator of airflow obstruction. Measurement of lung volume demonstrates an increase in total lung capacity, functional residual capacity, and residual volume, while the vital capacity decreases. The diffusing capacity of carbon monoxide diminishes in direct correlation with the severity of emphysema. Arterial blood gas analysis reveals mild to moderate hypoxemia without hypercapnia in the initial stages of the disease. However, as the disease progresses, hypoxemia intensifies, and hypercapnia becomes predominant. Hypercapnia is frequently observed when FEV1 falls below 1 liter per second or 30% of predicted values. During acute exacerbations, both lung mechanics and gas exchange deteriorate.

Chronic bronchitis complications encompass mucopurulent relapses, carbon dioxide necrosis, respiratory failure, secondary polycythemia, pulmonary hypertension, and right ventricular failure, commonly known as cor pulmonale. Chronic bronchitis can be effectively managed with homeopathic remedies. In the modern conventional system, the treatment of chronic bronchitis typically involves a combination of symptom relief and antibiotic medications. However, allopathic medicines can be costly and may result in adverse effects when used over the long term. Homeopathic treatments offer a broad range of options for addressing chronic bronchitis. This holistic and scientifically grounded medical approach views each patient as a unique individual, emphasizing a thorough case-taking process, meticulous documentation, and in-depth analysis for a comprehensive diagnosis of both the individual and the disease. This, in turn, facilitates the selection of the most suitable homeopathic remedy, combining the scientific methodology with the art of individualized care.

Top of Form

.

# ETIOLOGY:-

From this study we will learn more about the origin, prognosis and treatment of chronic bronchitis using carefully selected homeopathic remedies along with diet and yoga, Exercise.

## Smoking cigarettes

The United States Surgeon General's Advisory Committee concluded in 1964 that cigarette smoking significantly increases the chance of developing chronic bronchitis. Several disorders of the respiratory system are associated with cigarette smoking. All these anomalies increase the risk of developing chronic bronchitis.

* + Slow cilia movement.
	+ .Bronchoconstriction (through smooth muscle contraction).
	+ .Hypertrophy and hyperplasia of mucus-secreting glands.
	+ .Release of inflammatory mediators in the lungs.

### RESPIRATORY RESPONSIBILITY

One of the characteristics of asthma is a tendency to increased bronchoconstriction in response to various external stimuli such as histamine and methacholine. However, many patients with COPD also have this feature of airway reactivity.

### RESPIRATORY INFECTIONS

Childhood respiratory diseases were also evaluated as prospective risk factors for the eventual development of COPD. These have been investigated as potential risk factors for the onset and progression of COPD in adults. Therefore, although respiratory infections are a significant contributor to COPD flare-ups, it is still unknown whether childhood-onset respiratory infections or adult airway infections contribute to the onset and progression of COPD.

### WORK EXPOSURE

There have been suggestions that increased levels of dust exposure at work can lead to problems with the respiratory system and blocked airflow. A number of specific occupational exposures have been proposed as risk factors for chronic airflow obstruction, including coal mining, gold mining, and cotton textile dust. The significance of dust exposure as a risk factor for COPD, independent of cigarette smoking, is uncertain, although nonsmokers in these occupations experienced some reduction in FEV.

### AIR POLLUTION

Researchers have shown that those living in urban areas have more respiratory symptoms than those living in rural areas, which may be related to increasing pollution in metropolitan areas. A link between persistent airflow obstruction and air pollution has not yet been established.

### PASSIVE OR SECOND-HAND EXPOSURE TO SMOKE

Children who are exposed to secondhand smoke have much less lung development. Tobacco smoking exposure also significantly reduces postnatal lung function.

### GENETIC CONSIDERATIONS

Despite the fact that cigarette smoking is a major environmental risk factor for the development of COPD, the susceptibility of smokers to developing airflow obstruction varies greatly. There is increasing evidence that there are other genetic risk factors for COPD in addition to severe alpha1 antitrypsin deficiency.

### SOME OTHER CAUSES OF CHRONIC BRONCHITIS

1. Acute bronchitis
2. Aluminum lungs
3. Blue and puffy syndrome
4. Chemical poisoning with acetic acid, coal dust, polychlorinated dibenzofurans
5. Defective expression of HLA class 1
6. Farmers Lung
7. Heart diseases
8. Lung cancer
9. MHC class 1 or class 2 deficiency
10. Addiction to nicotine

# Pathophysiology

The most common observation in COPD is a sustained decrease in the rate of forced exhalation. Additionally, there is an increase in ventilation perfusion, residual volume, and the ratio of total lung capacity.

AIRFLOW BLOCKING:-

Spirometry is a common method used for the evaluation of airflow limitation, often referred to as airflow obstruction. It involves forced expiratory actions after the individual has inhaled to their maximum lung capacity. Significant spirometric parameters include FEV (forced expiratory volume) and the total volume of air exhaled throughout the spirometric procedure (FVC, or forced vital capacity). Patients who have COPD accompanied by airflow obstruction exhibit a persistently reduced FEV/FVC ratio. In contrast to asthma, the diminished FEV observed in COPD typically shows limited responsiveness to inhaled bronchodilators, but it may occasionally demonstrate improvements of up to 50%.

HYPERINFLATION:-

Lung volumes are frequently assessed during lung function testing. In the advanced stages of COPD, individuals often encounter progressive hyperinflation, which involves an increase in total lung capacity, as well as air trapping, leading to elevated residual volume and an increased ratio of residual volume to total lung capacity. Hyperinflation of the chest occurs during expiratory breathing, preserving maximal expiratory airflow. This hyperinflation is made possible by the expansion of lung volume, enhanced elastic recoil pressure, and the dilation of airways, all of which contribute to a reduction in airway resistance. Consequently, hyperinflation plays a compensatory role in mitigating airway constriction.

GAS EXCHANGE:-

The association between FEV and other physiologic abnormalities in COPD varies significantly, but some generalizations can be made. As long as the FEV does not decrease to 50% of the expected value, the PaO2 values unchanged, and even a much lower FEV can be associated with a normal PaO2, at least at rest. An increase in PaCO2 is not expected until FEV is less than 25%

of projected, and may not occur even then. Although there may be some increase in pulmonary artery pressure earlier in the course, especially with exercise, severe pulmonary hypertension due to COPD, which leads to cor pulmonale and right ventricular failure, only affects those with a significant drop in FEV (25% of predicted value). with chronic hypoxemia.

Although emphysema and chronic bronchitis often occur simultaneously, each condition can be treated clinically and pathologically as a separate entity. Smoking and air pollution are significantly associated with the prevalence and severity of COPD. Although lung cancer has a higher mortality rate than COPD, COPD has a greater socioeconomic burden due to earlier onset and longer disease duration. Men are more likely than women to have emphysema and chronic bronchitis.

# PATHOLOGICAL CHANGES

The bronchi and/or bronchioles contain pathological changes associated with chronic bronchitis. In some situations, both the small and large airways may be affected, while others may predominate or may not be present.

Clinical signs of large airways (bronchial) involvement include cough and sputum production. Histological changes include:

* goblet cells in the epithelium is increase in number.
* increased volume of submucous mucous glands

The Reid index is employed for evaluation, determined by the ratio of the width of the submucosal gland mass to the distance from the basal lamina of the mucosa to the inner perichondrium. A ratio exceeding 0.4 signifies the enlargement of mucous glands. Generally, there is an element of chronic inflammation along with an elevation in the number of cells and mucus-secreting glands in the airway wall. However, the extent of this infiltration can significantly vary.

The histological participation of the small airways (bronchiolar) is defined by the presence of goblet cells in the lining epithelium. Goblet cells are typically scarce or non-existent in the distal airways. When mucus accumulates in the lumen of the small airways, it can lead to heightened flow resistance, potentially causing a decrease in maximal effortful expiratory flow as an indicator of bronchiole involvement. Inflammation, as observed in the larger airways, can also be a contributing factor.

In a patient with chronic bronchitis, the presence of superimposed acute inflammation in the airways can exacerbate symptoms due to increased cellular infiltrates and edema. A photomicrograph of the submucosa in the bronchus reveals a heightened number of chronic inflammatory cells. Clinically, chronic bronchitis is characterized by a persistent productive cough that persists for a minimum of three consecutive months over at least two consecutive years, with no other pathological symptoms. It's worth noting that the majority of patients with chronic bronchitis are smokers, and they frequently exhibit symptoms of emphysema as well.

# Symptoms of chronic bronchitis

1. Persistent cough
2. Productive cough
3. Cough with sputum
4. Persistent winter cough that disappears in summer - an early symptom
5. Excessive secretion of mucus from the respiratory tract
6. Shortness of breath
7. Shortness of breath on exertion
8. Cyanosis
9. Mild fever
10. Mild chest pain
11. Episodes of acute bronchitis
12. Mallet fingers
13. Persistent cough that produces sputum (phlegm) and phlegm (coughing up or productive cough) for at least three months in two consecutive years
14. Shortness of breath (shortness of breath)
15. Wheezing
16. Chest pains
17. Fever
18. Fatigue or malaise
19. Mucus is often green or yellowish-green and can also be orange or pink, depending on the pathogen causing the inflammation
20. Shortness of breath

# Diagnostic testing

The diagnosis of chronic bronchitis necessitates the documentation of airflow limitation through pulmonary function testing, which also provides valuable insights into the patient's response to inhaled bronchodilator medication. Obstructive airway disease is characterized by a forced expiratory volume in one second (FEV1) measuring less than 70% of the total forced vital capacity (FVC) or a reduced FEV1/FVC ratio. An FEV1/FVC ratio below 50% indicates advanced obstructive airway disease. For individuals aged over 50, a decline of 30 mL per year in FEV1 is a sign of genuine disease progression, attributable to age-related physiological alterations in lung elasticity. When airflow obstruction coexists with chronic sputum production, it confirms the clinical diagnosis of chronic bronchitis.

In individuals who do not exhibit the characteristic symptom of sputum production, indications of obstructive airflow irregularities on pulmonary function tests are frequently concurrent with radiological observations that align with emphysema. In younger patients affected by emphysematous obstructive pulmonary disease, particularly those who are non-smokers, it is advisable to evaluate the possibility of alpha1-antitrypsin deficiency. Patients with an FEV1 measuring below 1 liter have a median survival of four years.

.

|  |  |  |  |
| --- | --- | --- | --- |
| Gold stage | Severity | Symptoms | Spirometry |
| 0 | At Risk | Chronic cough, Sputum production | Normal |
| 1 | Mild | Sputum production with or without chronic cough . | FEV/FVC<0.7 & FEV> 80%Predicted. |
| 2 | Moderate | With or without chronic cough or sputum production. | FEV/FVC<0.7 &50%<-FEV< 80% predicted. |
| 3 | Severe | With or without chronic cough of sputum production. | FEV/FVC<0.7 &30%<FEV<50% predicted |

|  |  |  |  |
| --- | --- | --- | --- |
| 4 | Very severe | With or without chronic cough or sputum production | FEV/FVC<0.7 & FEV<30%Predicted or FEV <50% predicted with respiratory failure or signs of right heart failure. |

### BLOOD TESTS

In individuals with severe chronic bronchitis and respiratory failure triggered by bronchospasm and inflammation, the presence of hypoxemia is a frequently observed outcome during arterial blood gas analysis. As the condition progresses, a concurrent increase in carbon dioxide levels (hypercapnia) is linked to the deterioration of ventilatory gas exchange. Mild polycythemia may be detected in blood tests due to hypoxia.

### CHEST X-RAY

Most patients with chronic bronchitis have a poor correlation between radiographic findings and symptoms. Hyperinflation, bullae, vesicles, flattening of the diaphragm, and peribronchial signs are examples of common but nonspecific findings.

### ELECTROCARDIOGRAM

Electrocardiograms may sometimes reveal supraventricular rhythm abnormalities, including multifocal atrial tachycardia, atrial fibrillation, or atrial flutter accompanied by "p" pulmonale. Airway biopsy indicates the presence of goblet cell hyperplasia, mucosal and submucosal inflammation, as well as increased smooth muscle in the small non-cartilaginous airways. These alterations can be pathologically quantified using the Reid index.

### SPUTUM CULTURES

Cultures of sputum samples do not adequately represent the organisms found in the distal bronchi. Consequently, the utility of sputum cultures in non-hospitalized patients experiencing acute exacerbations of chronic bronchitis is limited. Gram staining of sputum is often suggested for guiding early antibiotic therapy. However, the significance of gram staining in acute decision-making is diminished due to the likelihood of multiple organisms being present. It is widely accepted that sputum samples from patients with a history of chronic bronchitis should contain more than 25 white blood cells and fewer than 10 squamous cells per high-power microscopic field to be considered valid. When new symptoms emerge during hospitalization, the most effective method for identifying the infectious agents responsible for the exacerbation involves "protected tip" cultures from the most inflamed airway level observed during bronchoscopy in these patients and those suspected of harboring atypical organisms. To diagnose chronic bronchitis, your doctor will first conduct a thorough physical examination, review your medical history, and inquire about any symptoms you may be experiencing. The following tests can be performed to establish a definitive diagnosis.

### PULMONARY FUNCTION TESTING (PFT)

Airflow and air volume in your lungs are measured in this test using a series of breathing exercises. This allows your doctor to assess your lung health in an unbiased way.

### HIGH RESOLUTION COMPUTED TOMOGRAPHY (HRCT)

This particular CT scan will provide your doctor with detailed, high-quality images of your lungs. An open table is used for both the normal CT scan and the HRCT, and neither procedure takes more than a few minutes.

### EXAMINATION OF SPUTUM

Analyzing the cells in your sputum can help determine the cause of some lung problems.

# Differential diagnosis

*BRONCHITIS*

* Mid-life onset
* Symptoms progress slowly
* Long history of smoking
* Shortness of breath during exercise
* Largely irreversible airflow limitation

*ASTHMA*

* Onset early in life (often in childhood)
* Symptoms vary from day to day
* Symptoms at night/early morning
* Allergy/runny nose/eczema may also occur
* Family history of asthma
* Largely reversible airflow restriction.

*CONVERTED HEART FAILURE*

* Soft basilar crackle on auscultation
* Chest x-ray shows heart dilatation, pulmonary edema
* Pulmonary function tests showed volume limitation, not airflow limitation

*BRONCHIECTASIS*

* Large volumes of purulent sputum
* Commonly associated with bacterial infection
* Loud crackling/burning sound when listening
* Chest x-ray / computed tomography (CT) shows bronchial dilatation, bronchial wall thickening

*TUBERCULOSIS*

* Onset at any age
* Chest x-ray shows lung infiltration
* Microbiological confirmation
* High local prevalence of tuberculosis

*OBLITERATIVE BRONCHIOLITIS*

* Onset in younger non-smokers
* May have a history of rheumatoid arthritis or exposure to toxic fumes
* Expiratory CT shows hypodense areas

*DIFFUSE PELVIC BRONCHIOLITIS*

* Most patients are men and non-smokers
* Almost everyone has chronic sinusitis

Chest X-ray and high-resolution CT show diffuse, small centilobular nodular opacities and hyperinflation.

# COMPLICATION

1. Acute bronchitis
2. Bronchopneumonia
3. Bronchiectasis
4. Cor pulmonale
5. Emphysema
6. High mortality rate
7. Polycythemia
8. Type 2 respiratory failure
9. Pulmonary hypertension
10. Pneumothorax
11. Elevated levels of angiotensin-converting enzyme (plasma or serum)
12. Respiratory failure
13. Deviation of the right axis of the QRS
14. Multifocal atrial tachycardia
15. Shortness of breath

# Management

1. It is important to note that there is no known cure for chronic bronchitis. Depending on the severity, length and stage of the disease, the course of chronic bronchitis treatment varies from patient to patient. Most treatments for chronic bronchitis are ineffective in curing it completely due to its recurring nature. Therefore, the main goal of chronic bronchitis treatment is to temporarily relieve symptoms and stop the development of new problems.
2. Reducing or eliminating the patient's exposure to airborne irritants is the initial step in the treatment of chronic bronchitis. Regular smokers are encouraged to quit smoking forever to improve the effectiveness of medical treatment. Patients with chronic bronchitis should try to limit exposure to industrial toxins, chemicals, and secondhand smoke. Most individuals can get relief from symptoms such as coughing and breathing problems simply by limiting their exposure to irritants.

### NO SMOKING

. The most effective approach to minimize your chances of developing chronic bronchitis in the future is to quit smoking. The observation of an accelerated decline in FEV1, compared to the usual 30 ml per year decrease, can serve as a compelling incentive for smokers who may still be in denial about the potential future symptoms resulting from continued smoking.

The use of various smoking cessation aids, such as support groups, behavior modification training, and nicotine replacement therapy, can be beneficial once a patient decides to quit smoking. These methods work best when the patient sees a supportive primary care physician regularly while quitting smoking. Primary care physicians should encourage and instruct the patient's family members to support the patient's attempts to quit smoking, which may require several attempts before the patient is successful.

**Additional Management Considerations**

Another prudent management recommendation is to minimize or completely avoid prolonged exposure to outdoor air pollution containing elevated levels of sulfur dioxide. Examples of such pollutants include aerosol hair and deodorant products used in the home, exposure to organic dust or harmful gases in the workplace, and the use of aerosol hair and deodorant products. Another crucial responsibility of the primary care physician involves supervising the patient and their family caregivers' education regarding the progressive nature of chronic bronchitis and its potential impact on future lifestyle and function. It is essential to initiate realistic goal setting and advanced directives that address concerns related to terminal management, such as ventilatory support and hospitalization, in addition to ongoing pharmaceutical management and oxygen compliance early in the patient's illness. Employing a multidisciplinary approach that involves nurses, respiratory therapists, and other healthcare professionals to educate the patient about the disease, including topics like inhaler usage and pulmonary rehabilitation, is highly recommended.

# Usefulness of Homeopathy:

With the use of drugs from another medical faculty, chronic bronchitis is primarily suppressed in the modern medical system. Since homeopathy is a holistic medical approach, it addresses each patient as a whole, reducing the likelihood of recurrence. Homeopathic doctors around the world have claimed to have relieved or cured patients of chronic bronchitis, another benefit of homeopathic treatment. It can be used simultaneously with allopathic treatment or for any ailments. However, these claims have not been scientifically evaluated or supported by evidence.

In order to confirm or deny these claims, a methodical analysis was conducted to thoroughly assess the efficacy of homeopathic medications in treating chronic bronchitis. When used wisely with already available homeopathic remedies, this data will be invaluable for indexing in the repertory and will have a significant positive impact on the profession as a whole.

# HOMEOPATHIC TREATMENT

Commonly indicated medications for chronic bronchitis are as follows:

**Ammonium-Carbonica**: Chronic bronchitis, with great rattling in the chest, but difficult and feeble expectoration of tenacious purulent matter, often in old people. In old, aged and debilitated persons, hoarseness, cough every morning, about three o'clock. Shortness of breath, palpitations and burning in the chest. Slow labored, stiff breathing.

**Antimonium tartaricum**: Bronchitis characterized by a severe, spasmodic cough, pronounced grunting in the chest, and the presence of abundant white sputum along with breathing difficulties. This condition is often associated with emphysema in older individuals. Symptoms of cough and breathlessness are alleviated when the patient lies on their right side. It involves the accumulation of a significant amount of mucus in the airways, which cannot be effectively expelled and results in a rattling sound often referred to as the "death rattle." Patients experience pronounced breathlessness, particularly in the morning, compelling them to sit upright to facilitate breathing.

Top of Form

**Arsenicum album**: This remedy holds significant importance in the treatment of chronic bronchial catarrh. It is less likely to be prescribed for simple and uncomplicated cases of chronic bronchial catarrh, but it becomes more frequent when emphysema is present. It is especially useful in cases of suffocating catarrh. Cough tends to worsen after midnight and when lying on the back. Patients may expectorate thin, foamy mucus and experience a piercing pain in the upper third of the right lung, often accompanied by wheezing.

**Balsamum peruvianum**: Bronchial catarrh with loud gurgling and copious expectoration. Bronchitis with muco-purulent, thick, creamy expectoration. Loud throbbing in the chest.

**Bacillinum**: It is a remedy highly esteemed by some competent observers; it seems to suit especially individuals who have constant colds, hardly getting rid of one before they get the other. The irritation is localized in the bronchial mucosa and leaves behind a difficult cough. At night, he is woken up by a cough, easy expectoration. Coughing up of indistinct, easily separated, thick mucus from the respiratory passages, followed after a day or two by a very clear ringing of the voice.

**Baryta carbonica**: Has been quite helpful in various elderly cases of catarrh, including high mucus output and difficult expectoration, as well as in cough attacks that occur right after midnight.

**Calcarea carbonica**: Adapts to emphysematous chronic catarrh, if the cough is dry and distressing, comes on mainly at night with violent irritation of the respiratory organs, and if after some time of coughing tenacious and frothy mucus of salty or offensive sweet taste is coughed up. Sputum is sweet, very often white, yellow and thick. The nature of the cough is a dry tickling in a single attack, with all these pains in the chest. All these symptoms are worse in the cold and in the evening.

**Carbo vegetabilis**: This remedy is indicated for bronchitis in elderly individuals, characterized by abundant, yellow, and foul-smelling expectoration, accompanied by dyspnea and pronounced rattling in the chest, often accompanied by a burning sensation. The sputum associated with this condition can be hard and greenish, yellow-green, or purulent. In some cases, it may appear brown or bloody. Less commonly, the sputum can be tenacious, whitish mucus or watery. Patients might report a sour or salty taste and an unpleasant smell. At night, there may be a sensation of mucus in the throat, leading to suffocation when coughing, which is typically relieved when sitting or moving.

**Ipecacuanha:** Ipecacuanha is the most closely related medication in these cases. The grunting sound is more pronounced and harsher, often accompanied by persistent coughing, although the patient brings up very little phlegm. There is a significant buildup of mucus, leading to spasmodic coughing, nausea, vomiting, and breathing difficulties. This type of bronchial catarrh is often triggered by abrupt weather changes or exposure to damp conditions (similar to Nat s). Patients experience choking and gagging during coughing spells and often find it necessary to sit upright at night to facilitate breathing. Seizures are frequent and can occur repeatedly.

**Kalium bichromicum**: Kalium bichromicum has for its designation though, a tenacious, sticky expectorant character; can be stretched into long strings. Hughes finds it useful when bronchitis has long persisted in a subacute state. The expectoration may also have bluish lumps and the cough is difficult especially in the morning, the tension seems to be in the epigastrium. It causes the secretion of a tough, fibrous mucus, - mucus which adheres to the part and becomes entwined into a long string when withdrawn. This symptom is the result of an inflammatory process that leads to the formation of plastic exudation.

**Kali carbonicum**: It is also effective in cases of bronchitis characterized by dyspnea, a choking cough, and sharp chest stitches. This remedy is recommended for bronchitis when the following symptoms are prominent: severe shortness of breath, even though there is a considerable amount of phlegm in the chest, it is difficult to expel. Breathing is characterized by wheezing and wheezing sounds. The cough is dry and irritating, worsened by the consumption of warm food, exposure to cold temperatures, and occurs around 3 a.m. Patients experience tickling sensations in the throat, larynx, or bronchi, which result in the expulsion of sticky mucus or pus that must be swallowed. Patients may expectorate small round lumps from the throat. There is a sense of chest weakness after brisk walking, as well as feelings of tension and oppression. Tension across the chest is noted during exhalation and while walking. Speaking, breathing, and lifting may induce painful chest discomfort, and there may be a feeling of pressure in the chest.

**Lycopodium clavatum**: This remedy is appropriate for elderly individuals, especially if they have a history of lung emphysema and significant changes in the mucous membrane of the bronchi. Common symptoms include persistent tickling in the throat, loud grunting, and the presence of weak or infrequent expectoration, which may appear gray in color and have a salty taste. Nocturnal exacerbations are characteristic. The cough tends to worsen between 4 to 6 p.m., often occurring every other day. It may be aggravated by exertion, stretching the arms, stooping, lying down, lying on the left side, and by consuming cold food and drinks. Additionally, there may be morning coughing accompanied by abundant expectoration of greenish material. In some cases, there is profuse expectoration of pus during coughing episodes.

**Mercurius solubilis:** A powerful treatment for inflammatory bronchial catarrhs; a dry, raw, rattling cough that is extremely debilitating; sputum that is watery, salivary, or yellow and purulent; severe and painful from the face down through the middle of the chest. Rotation and fever are present.

**Nux vomica**: A thin cough with easy expectoration of simple phlegm begins only in the morning, usually after, very rarely before getting up. The cough begins with a peculiar force between midnight and morning. It is dry, spasmodic, very persistent, and irritating, causing pain in the bowels. It is also easily excited by temperature changes. Cough as though there were something loose in your chest. shallow respiration. oppressive respiration. Coughing that is dry and sometimes produces bloody expectoration. A cough can result in epigastric bruises and a bursting headache.

**Phosphorus:** It is recommended for bronchitis, particularly in tall, thin individuals who have a predisposition toward stooping and a hollow chest, as well as a somewhat tuberculous habit or inclination. It is indicated whether the disease affects the bronchial tubes high up or whether it extends down into the bronchioles in cases of bronchitis or bronchial catarrh. The symptoms include a tightness in the upper chest that feels like something is being released, a constriction of the larynx, and a cough accompanied with tearing agony beneath the sternum.

**Pulsatilla pratensis**: In cases of chronic bronchitis, where the following symptoms are predominant, it is far more helpful than in acute cases: Cough, particularly at night, brought on by tickling in the trachea, accompanied by copious expectoration of phlegm; the mucus is primarily white, but it frequently contains lumps that are yellowish or greenish in color, giving it an unpleasant, greasy flavor. A thick yellow expectoration accompanied by a scratchy, raw feeling in the throat; or a dry, tickling cough resulting from tracheal irritation, which is worse in the evening and while lying down. Chest tightness or dyspnea might happen occasionally.

**Senega**: It is an old man's remedy, rattling in the chest, oppressed chest on rising, difficulty in raising phlegm, asthenic bronchitis in old people. Bronchitis, often in old people, with sneezing, sore chest walls, expectoration difficult, stiff, but profuse, often accompanied by kidney failure, aggravated by an evening stay in the open air.

**Spongia tosta:** It is among the primary treatments for long-term croupous bronchitis. bronchial catarrh accompanied by suffocation, copious expectoration, worsening cold air, wheezing, and asthmatic cough.

Bronchial catarrh accompanied by wheezing, an asthmatic cough, worsening cold air, copious expectoration, and a sense of suffocation; the condition is made worse by resting facedown in a warm room. abuse of the chest.

**Sulphur**: When chronic bronchitis is persistent, sulfur reacts well, and good outcomes are seen in this instance. Suffocating attacks and prolonged, profuse, thick, phlegm-purulent expectoration are accompanying symptoms of his catarrh of the bronchial mucous membranes. stuffiness; feeling oppressed and anxious when sleeping on one's back at night. assaults by

suffocation, especially at night in bed; he wants to have the windows and doors open. Dry cough in the evening in bed or waking up from sleep at night.

# CONCLUSION:

A persistent cough that produces phlegm and phlegm for at least three months over two consecutive years is clinically considered to be chronic bronchitis. Bronchitis is a severely disabling condition that carries the risk of significant complications and can be fatal, especially when combined with emphysema, another serious respiratory condition, and a type of COPD.

Smoking is the main cause of chronic bronchitis, although other lung irritants can also cause it if inhaled over a long period of time. When irritating substances are inhaled into the respiratory tract, chronic bronchitis most often occurs. The lungs' ability to absorb enough oxygen can be impaired if pollutants in the air, such as smoke or allergens, are present. Long-term inhalation of irritants causes chronic irritation and inflammation of the bronchi, which in turn causes excessive mucus production, thickening of the bronchi and restriction of air flow to the lungs.

The likelihood of developing chronic bronchitis increases with the length of time your lungs are exposed to smoke or other irritants. People of all ages can get chronic bronchitis. It is more likely in men than in women.

Any patient over the age of 40 should be suspected of having chronic bronchitis. Presentation with prolonged cough, frequent respiratory infections, shortness of breath, and other cyanosis and edema (patients are usually referred to as blue puffy). Hemoptysis can make things difficult.

Chronic bronchitis can be treated with a number of homeopathic remedies. Each patient is seen as an individual in the scientific and holistic medical model. The scientific method must be combined with case-taking skill, careful documentation and processing to arrive at a comprehensive diagnosis, a diagnosis of the person, a diagnosis of the disease, and ultimately the selection of similimum. Most cases of chronic bronchitis are of psoriatic origin and can be effectively treated and managed by homeopathy.

# REFERENCE:

* Sadler T.W. Langman's Medical Embryology. 7th edition. U.S.A.: Lippincott Williams & Wilkins; 2004. p. 275.
* Singh Inderbir G.P. Friend. Human Embryology. 7th edition. New Delhi: Rajiv Beri for Masmillan India Ltd; 2001. p. 198-199.
* Chaurasia B.D. Human anatomy. 4th edition. New Delhi: CBS Publishers and Distributors; 2004. pp. 228-229.
* Jain A.K. Textbook of physiology vol. 1. 4th edition. New Delhi: Avichal Publishers; 2009. pp. 409-410.
* Pal G.K. Textbook of medical physiology. 2nd edition. New Delhi: Ahuja Publishers; 2011. pp. 695-697.
* Html[.w](http://www.nhlbi.nih.gov/.../Diseases/Copd/Copd_WhatIs.15/04/2011)w[w.nhlbi.nih.gov/.../Diseases/Copd/Copd\_WhatIs.15/04/2011.](http://www.nhlbi.nih.gov/.../Diseases/Copd/Copd_WhatIs.15/04/2011)
* Kasper D L, Braunwald E, Fauci AS, Hauser S L, Longo D L, Jameson J L. Harrison’s Principles of internal Medicine vol 2. 17th ed. New York: McGraw Hill Publishers; 2008. pp. 1635 – 1640.
* <http://www.enwikipedia.org/wiki/chronic-obstructive-pulmonary-disease.15/04/20011>
* Ledingham John G G, Warrell A David. Concise Oxford Textbook of Medicine. 4th edition. Oxford: Oxford University Press; 2000. p. 411.
* Shah N S, Paulanand M, Billimoria R. Aspi, Menjal P.Y., Kamath A. Sandhya, ShankarS. P., Yeolekar E.M. API Textbook of Medicine Vol 1. 8th Edition. Mumbai: Published by the Medical Association of India; 2008. pp. 361-362,36
* Kent J.T. Lectures on homeopathic philosophy. Reprint ed. New Delhi: B. Jain Publishers (P) Ltd. 1993. p.243.
* Elizabeth Wright. A short study course in homeopathy. Reprint ed. New Dilli; B Jain Publishers (P) Ltd. 1992.P.15.
* Farrington E.A. Smaller writings with therapeutic advice. 1st edition. New Delhi: B. Jain Publishers (P) Ltd; 1999. p. 20.
* Banerjee P.N., Chronic disease, its cause and treatment. 1st edition. New Delhi: B. Jain Publishers (P) Ltd; page 170.
* Baily Philip. "Homeopathic Prescribing". 1st edition. New Delhi: B.Jain Publishers (P) Ltd; 1999. pp. xi.
* Chancellor Kamal. The practice of medicine with homeopathic therapy. 1. New Delhi: B. Jain Publishers Pvt. Ltd; 1996. p. 92.
* Bernhard Baehr. The science of therapy, according to the principles of homeopathy. New Delhi: B. Jain Publishers (P.) LTD; 1987. pp. 215–220
* Mohanty Niranjan. New Textbook of Homeopathic Materia Medica. Reissue. New Delhi: B. Jain Publishers (P.) Ltd; 2001.P. 119-120, 282. Dewey W A. Practical Homeopathic Therapeutics. Reprint ed. New Delhi: B. Jain Publishers (P) Ltd; 1993. pp. 57-59.
* Allen H C. Allen's keynotes have been rearranged and classified using leading Materia Medica and intestinal nosodes. 9th edition. New Delhi: B. Jain Publishers (P) Ltd; 2001. p. 354.
* Hering C. The main symptoms of our Materia Medica Vol. 3. Reprint. New Delhi: B. Jain Publishers (P.) Ltd; 1997. p. 366.
* Mathur N. K. Systematic Materia Medica of Homeopathic Remedies. Reissue. New Delhi: B. Jain Publishers (P.) Ltd; 1997 115, 148, 498, 515, 524, 668, 682.
* Choudhuri M. N. Studies on Materia Medica. Reprint edition. New Delhi: B. Jain Publishers (P.) Ltd; 1999. p. 377.
* Farrington E A. Clinical Materia Medica. Reprint edition. New Delhi: B. Jain Publishers (P) Ltd; 2003. pp. 361, 570-571.
* Lilienthal Samuel. Homeopathic therapeutics. Reprint edition. New Delhi: B. Jain Publishers (P) Ltd; 1996. p. 159.
* Cowperthwaite A.C. Textbook of Materia Medica & therapeutics. 13th edition. New Delhi: B. Jain Publishers (P) Ltd; 2003. p. 421.
* Clarke Henry John MD. Clark-A Dictionary of Practical Materia Medica Vol. 2. Reprint edition. New Delhi: B. Jain Publishers Pvt Ltd; MuzumdarK.P.Dr. Textbook of homeopathic therapies with a clinical approach. Calcutta: New Central Book Agency Private Limited; 2006. p. 36.
* Kent J T. Lectures on Homoeopathic Materia Medica. Reprint edition. New Delhi: B. Jain Publishers (P) ltd; 1998. p. 792.