Chronic bronchitis and Homoeopathy

ABSTRACT

As there is increase in the environmental pollutants, cigarette smoking and the other noxious exposures, the incidence of the COPD has increased dramatically in the past few decades. It has become the most common cause of death whole over the world. Homoeopathy offers promising treatment for chronic bronchitis. Going by the literature, the treatment is curative, rather than palliative.

KEYWORDS

Chronic bronchitis, Chronic Obstructive pulmonary disease, homoeopathy, smoker's disease.

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INTRODUCTION:

Chronic bronchitis, one of the two major diseases of the lung grouped under COPD, is defined clinically as persistent cough with expectoration on most of the days for at least three months of the year for two or more consecutive years. The cough is caused by the over secretion of mucus. Chronic bronchitis is a chronic, ongoing, progressive inflammation of the bronchi (medium-size airways) in the lungs. It is generally considered one of the two forms of the chronic obstructive pulmonary disease (COPD) and is defined clinically as a persistent cough that produces sputum (phlegm) and mucus, for at least three months in two consecutive years. The hallmark of chronic bronchitis is a continuing loose, wet cough that produces an excessive amount of mucus. Bronchitis is a seriously disabling disease with the potential for major complications and can be fatal, especially when paired with emphysema, another serious respiratory disease, and form

of COPD. According to the National Heart, Lund and Blood Institute, COPD is a major cause of disability, and it's the fourth leading cause of death in the U.S.

Chronic bronchitis develops most often as a result of smoking, but can also occur from long-term inhalation of other irritants into the lungs. Chronic bronchitis most often develops when irritants are breathed into the respiratory tract and down into the bronchial tubes, small hollow passageways that branch off the main airway from the mouth and nose. Normally, air and needed oxygen pass through the bronchioles into the alveoli, tiny hollow sack-like structures in the lungs where oxygen is absorbed into the bloodstream. When air is mixed with smoke or irritants, it can damage the lungs and their ability to take in enough oxygen. Long-term inhalation of irritants results in chronic irritation and inflammation of the bronchioles leading to excessive production of mucus, and thickening of the bronchial tubes, resulting in obstruction of airflow into the lungs. Eventually, the lungs become scarred, and a chronic. An ongoing cough develops. The excessive mucus production and inflammation of chronic bronchitis also create a perfect breeding ground in the lungs for bacteria and viruses that can cause severe, even life-threatening infections, such as pneumonia. Infections of the lungs can also further and exacerbate (worsen) chronic bronchitis.

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

The condition is more common in:-

Middle & late adult life.

More in males than in female.

More in smokers than in non-smokers.

More in urban than in rural dwellers.

It is a seriously disabling disease with potential for major complications and can be fatal, especially when paired with emphysema, another serious respiratory disease and form of COPD. According to the National Heart, Lung and Blood Institute, COPD is a major cause of disability and it is fourth leading cause of death in the US. Chronic bronchitis develops more often as a result of smoking, but can also occur from long term inhalation of other irritants into the lungs. It can also develop from atmospheric pollution, occupation (cotton mills), and infection, familial and genetic factors. The longer the lungs are exposed to smoke or irritants, the more likely it is that you will developed chronic bronchitis.Chronic bronchitis should be suspected in any patient over the age of 40 years. Presenting with persistant cough with copious expectoration of long duration, recurrent respiratory infections, dyspnoea more on exertion cyanosis and oedema (patients usually called as Blue Bloated) Haemoptysis may complicate.

The investigations in a suspected case of chronic bronchitis included:-

Chest radiograph:- Frontal and lateral chest radiographs reveal signs of hyperinflation, including flattening of diaphragm, increased retrosternal air space, and a long narrow heart shadow .

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

Pulmonary Function Test:- These measurements are essential for the diagnosis and assessment of severity of disease, and they are helpful in the following its progress.

FEV_1 is a reproducible test and is most common index of airflow obstruction. Lung volume measurement show an increase in total lung capacity, functional residual capacity, and residual volume. The vital capacity decreases. The Carbon Mono Oxide diffusing capacity is decreased in proportion to the severity of emphysema. Arterial blood gases reveals mild-to-moderate hypoxemia without hypercapnia in the early stages. As the diseases progresses, hypoxemia becomes more severe and hypercapnia supervenes. Hypercapnia is commonly observed as the FEV_1 falls below 1 litre per second, or 30% of the predicted value. The lung mechanics and gas exchange worsen during acute exacerbations. Complications of chronic bronchitis included mucopurulent relapses, Carbon di oxide necrosis, Respiratory failure, Secondary polycythemia, Pulmonary hypertension and Right ventricular failure(cor pulmonale). Chronic Bronchitis can be treated and managed with the help of homoeopathic medicines. The treatment of chronic bronchitis in modern conventional system comprises a combination of steps to relieve the symptoms and medication with antibiotics. Medicines of allopathic system are costly and have adverse effects due to their prolonged use. Homoeopathic medicines have a wide scope in treatment of chronic bronchitis. The holistic and scientific system of medicine visualizes every patient as a unique individual. The scientific approach needs to be blended with art of case taking, diligent recording and processing to arrive at a complete diagnosis the person diagnosis the disease diagnosis that will ultimately help in selection of similimum.

This study will enrich us about the causes, prognosis and treatment of chronic Bronchitis through well selected homoeopathic remedies along with diet and yoga, Exercises.

Etiology

1. **CIGARETTE SMOKING**

By 1964, the Advisory Committee to the Surgeon General of the United States concluded that cigarette smoking is a major risk factor for chronic bronchitis. Cigarette smoking is associated with a variety of abnormalities of the respiratory system. All these abnormalities predispose to the development of chronic bronchitis

Sluggish ciliary movement.

.Bronchoconstriction (through smooth muscle constriction).

.Hypertrophy and hyperplasia of mucus-secreting glands.

.Release of inflammatory mediators in lungs.

2. **AIRWAY RESPONSIVENESS**

A tendency for increased bronchoconstriction in response to a variety of exogenous stimuli including methacholine and histamine is one of the defined feature of asthma. However , many patients with COPD also share this feature of airway responsiveness.

3. **RESPIRATORY INFECTIONS**

These have been studied as potential risk facts for the developments and progression of COPD in adults, childhood respiratory infections have also been assessed as potential predisposing factors for the eventual development of COPD. Thus, although respiratory infections are important causes of exacerbations of COPD, the association of both adult childhood and adult respiration infections to the development and progression of COPD remains to be proved.

4. **OCCUPATIONAL EXPOSURES**

Increased respiratory systems and airflow obstructions have been suggested as resulted from general exposure to dust at work. Several specific occupational exposures, including coalmining, gold mining and cotton textile dust, have been suggested as risk factors for

chronic airflow obstructions. However, although non-smokers in these occupations developed some reductions in FEV, the importance of dust exposure as a risk factor for COPD, independent of cigarette smoking is not certain.

5. **AMBIENT AIR POLLUTION**

Some investigators have reported increased respiratory symptoms in those living in urban compare to rural areas, which may relate to increased pollution in the urban settings. However, the relationship of air pollution to chronic airflow obstruction remains unproved.

6. **PASSIVE OR SECONDHAND SMOKING EXPOSURE**

Exposure of children to material smoking results in significantly reduced lung growth.Tobacco smoke exposure also contributes to significant reduction in post natal pulmonary functions.

7. **GENETIC CONSIDERATIONS**

Although cigarette smoking is the major environmental risk factor for the development of COPD, the development of airflow obstruction in smokers is highly variable. Severe alpha1 antitrypsin deficiency is a proven genetic risk factor for COPD, there is increasing evidence that other genetic determinants also exists.

SOME OTHER CAUSES IN CHRONIC BRONCHITIS

1. Acute Bronchitis
2. Aluminium Lung
3. Blue and bloated syndrome
4. Chemical poisoning from 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. Nicotine addiction

Pathophysiology

Persistent reduction in forced expiratory flow rates is the most typical finding in COPD. Increases in the residual volume, total lung capacity ratio, non-uniform distribution of ventilation and ventilation perfusion mismatching also occurs.

AIRFLOW OBSTRUCTION:-

Airflow limitation also known as airflow obstruction is typically determined by spirometry which involves forced expiratory maneuvers after the subject has inhaled to total lung capacity. Key phenotypes obtained from spirometry include FEV and the total volume of air exhaled during the entire spirometric maneuver (FEV). Patients with airflow obstructions related to COPD have a chronically reduced ratio of FEV/FVC. In contrast to asthma the reduced FEV in COPD seldom shows large responses to inhaled bronchodilators although improvements up to 50% are common.

HYPERINFLATION:-

Lung volumes are so routinely assessed in pulmonary function testing. In COPD there is often air trapping (increase residual volume and increased ratio of residual volume to total lung capacity) and progressive hyperinflation (increased total lung capacity) late in disease. Hyperinflation of the thorax during tidal breathing preserves maximum expiratory airflow, because a lung volume increases, elastic recoil pressure increases and airways enlarge so that airway resistance decreases. Consequently, hyperinflation helps to compensate for airway obstruction.

GAS EXCHANGE:-

Although there is considerable variability in the relationship between the FEV and other physiological abnormalities in COPD, certain generalizations may be made. The PaO2 usually remains near normal until the FEV is decreased to~50% of predicted, and even much lower FEV can be associated with a normal PaO_2,at least at rest. An elevation of $PaCO_2$ is not expected until the FEV is <25% of predicted and even then may not occur. Pulmonary hypertension severe enough to cause cor pulmonale and right ventricular failure

due to COPD occurs only on those individuals who have marked decreases in FEV (<25% of predicted) together with chronic hypoxemia, although earlier in the course, some elevation of pulmonary artery pressure, particularly with exercise, may occur.

Although chronic bronchitis and emphysema frequently occur together, each may be seen clinically and pathologically as separate entities. The incidence and severity of COPD are strongly correlated with air pollution and smoking. Although the mortality from lung cancer exceeds that of COPD, the earlier onset and prolonged morbidity of COPD lends it a greater socioeconomic impact. Both chronic bronchitis and emphysema are more common in men than in women.

PATHOLOGIC CHANGES

The pathologic changes of chronic bronchitis are found in the bronchi and/or bronchioles. In some cases, involvement of both small and large airways is present, whereas in others, one may predominate or be absent.

Large airway (bronchial) involovement is clinically manifest as cough and sputum production. The histologic changes consist of :

- increased numbers of goblet cells in the epithelium
- increased volume of the submucosal mucus glands

The latter is judged by determining the **Reid Index**, which is defined as 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 greater than 0.4 indicates mucus gland enlargement.In addition to the increase in mucus secreting cells and glands, there is usually a component of chronic inflammation in the airway wall, but the amount of this infilterate may be highly variable.

The histology of **small airway** (bronchiolar) involvement consists of the presence of goblet cells in the lining epithelium. Goblet cells are normally rate or absent in the distal airways. Involvement of bronchioles may be manifest as a decrease in maximum forced expiratory flow, since mucus in the lumen of the small airways can produce an increased resistance to flow. As in the large airways, there may also be a component of inflammation.

Superimposed acute inflammation in the airways of a patient with chronic bronchitis may contribute to exacerbation of symptomatology due to increased cellular infilterates and oedema. This photomicrograph demonstrates a bronchus with increased numbers of chronic inflammatory cells in the sub mucosa. Chronic bronchitis does not have characteristics pathologic findings, but is defined clinically as a persistent productive cough for at least three consecutive months in at least two consecutive years. Most patients are smokers. Often, there are features 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 airway mucus secretion
6. Breathlessness
7. Breathlessness on exertion
8. Cyanosis
9. Mild fever
10. Mild chest pain
11. Episodes of acute bronchitis
12. Clubbed Fingers
13. Persistent cough that produces sputum (phlegm) and mucus (Expectorating or Productive cough), for at least three months in two consecutive years
14. Shortness of breath (dyspnea)
15. Wheezing

16. Chest pains
17. Fever
18. Fatigue or malaise
19. Mucus is often green or yellowish green and also may be orange or pink, depending on the pathogen causing the inflammation
20. Dyspnea

Diagnostic Testing

Documentation of airflow obstruction by pulmonary function testing is critical for the diagnosis of chronic bronchitis and provides valuable therapeutic information about the patients responsiveness to inhaled bronchodilator therapy. A measured forced expiratory volume in one second ($fev_{1)}$ of less than 70 percent of the total forced vital capacity (fvc) – the fev_1/fvc ratio – defines obstructive airway disease. An fev_1/fvc ratio of less than 50 percent indicates end-stage obstructive airway disease. In most adults beyond the mid-life years, age-related physiologic changes in the elasticity of the lungs cause a 30 mL per year decline in FEV_1, so that progressive rates of decline in the FEV_1 that exceed this amount represent true disease progression. Airflow obstruction in the presence of chronic sputum production confirms the clinical diagnosis of chronic bronchitis.

Evidence of obstructive airflow changes on pulmonary function tests in patients without the characteristic symptom of sputum production is often accompanied by radiographic findings consistent with emphysema. Younger patients with emphysematous obstructive pulmonary findings,especially those without a smoking history, should beevaluated for $alpha_1$antitrypsin deficiency. The median survival for patients with an FEV_1 of less than 1 L is four years.

Gold stage	Severity	Symptoms	Spirometry
0	At Risk	Chronic cough, Sputum production	Normal
1	Mild	With or without chronic cough or sputum production.	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

Hypoxemia is a common finding on arterial blood gas sampling in patients with advanced chronic bronchitis and ventilator failure secondary to bronchospasm and inflammation. Concomitant hypercapnia is associated with worsening ventilator gas exchange as the illness progresses. Blood tests may reveal mild polycythemia secondary to the hypoxia.

CHEST RADIOGRAPH

Radiographic findings correlate poorly with symptoms in most patients with chronic bronchitis. Common but nonspecific,findings include hyperinflation, bullae, blebs, diaphragmatic flattening and peribronchial markings.

ELECTROCARDIOGRAM

Electrocardiographic findings can sometimes include supraventricular rhythm disturbances, such as multifocal atrial tachycardia, atrial fibrillation or atrial flutter with “p” pulmonale. Findings on airway biopsy include goblet cell hyperplasia, mucosal and submucosal inflammation, and increased smooth muscle at the level of the small noncartilaginous airways. These changes can be quantitated pathologically as the Reid index

SPUTUM CULTURES

The role of sputum cultures remains limited in nonhospitalized patients who present withacute exacerbation of chronic bronchitis, since cultures of expectorated samples do not reflect the organism(s) present at distal bronchial levels. Gram stain of sputum is often suggested as a means of directing initial antibiotic therapy. But because of the likelihood of multiple organisms, the role of gram stain in acute decision-making is de-emphasized. For expectorated sputum samples to be considered valid, conventional wisdom is that there should be fewer than 10 squamous cells and more than 25 white blood cells per high-power microscopic field. Patients with a history of chronic bronchitis and the onset of new symptoms while hospitalized may have acquired a nosocomial infection. For these patients and for others in whom atypical organisms are suspected as the cause of an exacerbation,”protected-tip” cultures of sample obtained from the airway level that appears the most inflamed on bronchoscopy offer the best chance of identifying causative infectious agents. In making a diagnosis of chronic bronchitis, your doctor will first start by conducting a thorough physical examination, recording your medical history and asking about any symptoms you are experiencing. The following tests may the be conducted to make a definite diagnosis:

PULMONARY FUNCTION TESTING (PFT)

This test involves a series of breathing maneuvers that measures the airflow and volume of air in your lungs. This allows your doctor to objectively assess the function of your lungs.

HIGH RESOLUTION COMPUTED TOMOGRAPHY (HRCT)

This is a special type of CT Scan that provides your doctor with high resolution images of your lungs. Having a HRCT is no different than having a regular CT Scan, they both are performed on an open air table and take only a few minutes.

SPUTUM EXAMINATION

Analysis of cells in your sputum can help determine the cause of some lumg problems.

Differential diagnosis

BRONCHITIS

- Onset in mid life
- Symptoms slowly progressive
- Long smoking history
- Dyspnoea during exercise
- Largely irreversible airflow limitation

ASTHMA

- Onset early in life (often childhood)
- Symptoms vary from day to day
- Symptoms at night/early morning
- Allergy/Rhinitis/Eczema may also present
- Family history of Asthma
- Largely reversible airflow limitation.

CONGESTIVE HEART FAILURE

- Fine basilar crackles on auscultation
- Chest X-ray shows dilated heart,pulmonary oedema

- Pulmonary function tests indicated volume restriction not airflow limitation

BRONCHIECTASIS

- Large volumes of purulent sputum
- Commonly associated with bacterial infection
- Coarse crackles/clubbing on auscultation
- Chest X-ray /computed tomography(CT) shows bronchial dilation , bronchial wall thickening

TUBERCULOSIS

- Onset all ages
- Chest X-ray shows lung infilterate
- Microbiological confirmation
- High local prevalence of tuberculosis

OBLITERATIVE BRONCHIOLITIS

- Onset in younger-aged non smokers
- May have history of rheumatoid arthritis or toxic fume exposure
- CT on expiration shows hypodense areas

DIFFUSE PAN BRONCHIOLITIS

- Most patients are male and non-smokers
- Almost all have chronic sinusitis

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

COMPLICATIONS

1. Acute bronchitis
2. Bronchopneumonia
3. Bronchiecstasis
4. Cor pulmonale
5. Emphysema
6. High mortality rate
7. Polycythaemia
8. Respiratory failure type 2
9. Pulmonary hypertension
10. Pneumothorax
11. Angiotensin converting enzyme levels raised (plasma or serum)
12. Respiratory failure
13. Right QRS axis deviation
14. Multifocal atrial tachycardia
15. Breathlessness

Management

1. It is important to note that there is no specific cure for chronic bronchitis. The treatment of chronic bronchitis varies from a patient to another, according to the intensity, the duration and the stage of the disease. The recurrent character of chronic bronchitis renders most medical treatments ineffective in completely overcoming the disease. Thus, the treatment of chronic bronchitis is primarily aimed at providing temporary symptomatic relief and preventing the occurrence of further complications.

2. The first step in the management of chronic bronchitis is to reduce or completely eliminate patients exposure to airborne irritants. In order to increase the efficiency of medical treatments, regular smokers are advised to quit smoking for good. Chronic bronchitis sufferers should avoid exposure to passive smoke, chemicals and industrial pollutants as much as possible. For most patients, symptoms such as cough and difficult breathing can be alleviated simply by minimizing the exposure to irritants.

SMOKING CESSATION

Smoking cessation is the single most effective way to reduce the risk of future morbidity from chronic bronchitis. The documentation of an accelerated rate of decline in the FEV_1 greater than the normal decline of 30 ml per year may provide an important motivation for smokers who continue to deny that their persistent smoking will cause future symptoms.

Once the patient makes a commitment to stop smoking, use of various smoking cessation tools, such as nicotine replacement systems, behaviour modification training and support groups, can be helpful. Such tools are most effective when a supportive primary care physicians sees the patient regularly throughout the smoking cessation period. Primary care physicians should enlist and educate available family members to aid in the patient's smoking cessation efforts, which may require repeated commitments before the patient ultimately succeeds.

Other management Consideration

Reduction or elimination of exposure to environmental inhaled irritants, such as aerosolized hair and deodorant products in the home and organic dusts or noxious gases in work place, and of prolonged exposure to outside air pollution with high sulphur-di-oxide level is also a prudent management suggestion. Educating the patient and family care takers about the progressive nature of chronic bronchitis and its potential impact on future life style and function is another important aspect of primary care physician to oversee. Realistic goal setting and advance directive focused on terminal management issues (e.g. ventilatory support, hospitalisation), as well as day-to-day medication management and oxygen compliance, should be addressed early in illness. A multidisciplinary approach, using nurses, respiratory therapists and other to teach the patient about the disease (e.g. inhaler utilization, pulmonary rehabilation), is encouraged.

Usefulness of homoeopathy:

In modern system of medicine, the treatment of chronic bronchitis chiefly suppression with the use of the drugs of the other system of medicine. Homoeopathy being holistic system of medicine treats the patient as a whole which minimizes the chance of recurrence. Another advantage of homoeopathic treatment is that it can be taken simultaneously along with the allopathic treatment or

for any ailments, Homoeopathic physicians all over the world have claimed to have relieved or cured patient of chronic bronchitis. These claims, however have neither been assessed scientifically nor been documented with evidence base. To prove or disprove such claims, the presented methodical study has been planned to critically assess the efficacy of homoeopathic drugs in chronic bronchitis which could satisfy an unbiased observer. This will be a valuable data for indexing in a repertory and the same will immensely benefit the profession in general through judicious employment of already existing homoeopathic medicines.

HOMOEOPATHY THERAPEUTICS

Commonly indicated remedies in Chronic Bronchitis are as follows:

Ammonium-Carbonica: Chronic bronchitis with great rattling in chest but difficult and little expectoration of tenacious muco-purulent matter, often in old people. For old, aged, debilitated persons hoarseness, cough every morning, about three ‘o’ clock. Dyspnoea, palpitation and burning in the chest. Slow laboured, stertorousbreathing.

Antimonium tartaricum: In bronchitis with a violent, spasmodic cough, loud rales in the chest, a copious, white expectoration, dyspnoea.Emphysema in the aged. Cough and dyspnoea relieved by lying on right side. Great accumulation of mucous in air passages which cannot be coughed out and produces the rattling sound, ("Death rattle"). There is great oppression of breathing especially towards morning, which compels the patient to sit in order to breathe.

Arsenicum album: Is one of the most important remedies for chronic bronchial catarrh. However, it will rarely be indicated in simple, uncomplicated, chronic, bronchial catarrh, but so much more frequently if emphysema has taken place. Suffocative catarrh. Cough worse after midnight; worse lying on back. Expectoration scanty, frothy, darting pain through upper third of right lung. Wheezing respiration.

Balsamum peruvianum: Bronchial catarrh, with loud rales and profuse expectoration. Bronchitis, with muco-purulent, thick, creamy expectoration. Loud rales in chest.

Bacillinum: Is a remedy highly of by some competent observers; it seems to suit especially individuals who are constantly catching cold, one is hardly gotten rid of before another is contracted. The irritation locates itself in the bronchial mucous membrane leaving a troublesome cough. Cough waking him in night, easy expectoration. Expectoration of non-viscid easily detached, thick phlegm from air passages, followed after a day or two by a very clear ring of voice.

Baryta carbonica: Has acted very favorably in several cases of catarrh of old people, with excessive secretion of mucus and difficulty of expectorating it, and with paroxysms of a spasmodic cough during the period immediately following midnight.

Calcarea carbonica: Adapted to emphysematous chronic catarrh, if the cough is dry and tormenting, sets in principally at night with a violent irritation in the respiratory organs, and if, after coughing for some time, a tenacious and frothy mucus of a saltish or offensively sweetish taste is expectorated. The expectoration is sweetish, very often white, yellow and thick. The nature of the cough is dry tickling in a single paroxysm, with all these there is stitching pain in the chest. All these symptoms are aggravated in cold and evening**.**

Carbo vegetabilis: Bronchitis of old people with profuse, yellow, foetid expectoration, dyspnoea, much rattling in the chest, and burning calls for this remedy. Sputa: tough and greenish, yellow green or purulent; brown, bloody; or less often tenacious whitish mucus, or watery; of sour or saltish taste; of unpleasant odor. Feeling of mucus in throat, at night, choking her when she coughs, amelioration when sitting up or moving.

Ipecacuanha: Ipecacuanha is the most similar drug; the rales are louder and coarser, there is much coughing, but the patient raises little phlegm. There is great accumulation of mucus, spasmodic cough, nausea and vomiting, and difficulty in breathing. Bronchial catarrh; from sudden weather changes or damp weather (Nat s); suffocates and gags when he coughs; has to sit up at nights to breathe;the attacks are common and frequent.

Kalium bichromicum: Kali bichromicum has for its indication the though, tenacious, glutinous character of the expectoration; it can be drawn out in long strings. Hughes considers it useful when bronchitis lingers long in a sub-acute condition. The expectoration may also be of bluish lumps, and the cough is especially troublesome towards morning, the tightness seems to be at the epigastrium.It causes a secretion of a tough stringy mucus, - mucus that adheres to the part and weaves into a long string when pulled. This symptom is the result of an inflammatory process which leads to the formation of plastic exudation. The cough is violent, rattling, hoarse, and metallic.

Kali carbonicum: Is also valuable in bronchitis with dyspnoea, a choking cough, and sharp stitches in the chest. Indicated in bronchitis when the following symptoms are present: intense dyspnoea; although there is a great deal of mucus in the chest, it is raised with difficulty. Breathing is wheezing and whistling in character. Dry & teasing cough, aggravated by eating warm food, exposure to cold, at 3 in the morning; tickling in throat, larynx or bronchi, with dislodgement of tenacious mucus or pus, which must be swallowed. Expectorations of small round lumps from the throat. Weakness of the chest from rapid walking; also tightness and oppression.Tension across the chest onexpiration, while walking.Sore pain in chest from talking, breathing and lifting. Pressure in the chest.

Lycopodium clavatum: Is suitable for old people, if emphysema and marked changes in the bronchial mucous membrane have taken place; there is constant tickling in the throat, loud rales with scanty or unfrequent expectoration of a gray colour and saltish taste, nightly exacerbations. Cough agg. from 4 to 6 p.m., frequently on alternate days, from exertion, from stretching the arms out, stooping and lying down, when lying on left side, from eating and drinking cold things, in the wind, or in warm room. Cough (morning), with copious expectoration of greenish matter. Copious expectoration of pus, when coughing.

Mercurius solubilis: The sovereign remedy in inflammatory bronchial catarrh; there is roughness and soreness from the fauces down through the middle of the chest, a dry, raw concussive cough, which is very exhausting; sputum watery, saliva-like, or yellow and muco- purulent. There is fever and alternation of chills and heat, desire for cold drinks, which aggravate the cough, and pasty sweat without relief. Cannot lie on right side. [Left side, Lycop.] Cough, with yellow muco-purulent expectoration. Paroxysms of two; worse, night, and from warmth of bed.Catarrh, with chilliness; dread of air.Stitches from lower lobe of right lung to back. Cough worse, tobacco smoke.

Natrum Sulph: Is typically a hydrogenoid and sycotic remedy. They are worse in rainy season, in damp weather and from water in any form. Rattling in the chest in the early hours 3 to 4 a.m., cough is with ropy greenish expectoration. Chronic catarrh if the bronchial tubes. Emptiness in the chest on inspiration.Soreness in the chest on coughing, better by holding the chest with the hands. Bronchitis and pneumonia are sometimes hard to cure in sycotic patients until they have received this remedy. Muco-purulent expectoration in old people.

Nux vomica: The cough sets in with particular violence between midnight and morning, is dry, spasmodic, very persistent and racking, so as to cause pains in the bowels; it is easily excited by a change of temperature, and is associated with a continual titillation in the chest and trachea; only in the morning, mostly after, very seldom before rising, a loose cough sets in, with easy expectoration of a simple mucus. Cough, with sensation as if something were torn loose in chest. Shallow respiration. Oppressed breathing. Tight, dry hacking cough; at times with bloody expectoration. Cough brings on bursting headache and bruised pain in epigastric region.

Phosphorus: Indicated in bronchitis, especially in tall, slender persons of rather tuberculous habit or tendency, rather inclined to stoop and to be hollow-chested. Indicated in bronchitis or bronchial catarrh, whether the disease involves the bronchial tubes high up or whether it extends down into the bronchioles. The symptoms are as follows: cough, with tearing pain under the sternum, as if something were being torn loose; suffocative pressure in the upper part of the chest, with constriction of the larynx.

Pulsatilla pratensis: Is much more useful in chronic than in acute bronchitis, if the following symptoms prevail: Cough, principally at night, excited by tickling in the trachea, with copious expectoration of mucus; the mucus is mostly white, but frequently mingled with yellowish or greenish lumps that impart to it an oily, offensive taste. Bronchitis with thick yellow expectoration; or dry, tickling cough from irritation in the trachea, worse in the evening and on lying down, with dry air passages or a scraped, raw feeling. Occasionally there is dyspnoea or constriction of the chest.

Senega: Is old man's remedy, rattling in chest, chest oppressed on ascending, difficulty in raising the mucus, asthenic bronchitis in old people. Bronchitis often in old people with sneezing, sore chest walls, expectoration difficult, tough but profuse often accompanied by kidney derangement aggravation evening open air.

Spongia tosta: Is one of the principal remedies for chronic croupous bronchitis. Bronchial catarrh with wheezing, asthmatic cough, worse cold air, with profuse expectoration and suffocation. Bronchial catarrh, with wheezing, asthmatic cough, worse cold air, with profuse expectoration and suffocation; worse, lying with head low and in hot room. Oppression and heat of chest, with sudden weakness.

Sulphur: Sulphur corresponds well to inveterate cases of chronic bronchitis, and brilliant results are here obtained. Its catarrh of the bronchial mucous membranes is accompanied with loud rales, a persistent, profuse, thick, muco-purulent expectoration and attended by suffocative attacks. Dyspnea; oppression and anxiety at night when lying on the back. Attacks of suffocation, especially at night in bed; wants doors and windows open. Dry cough in the evening in bed, or waking from sleep, at night.

CONCLUSION: Chronic bronchitis is defined clinically as a persistent cough that produce sputum and mucus, for at least three months in two consecutive years. Bronchitis is a seriously disabling disease with the potential for major complications and can be fatal, especially when paired with emphysema, another serious respiratory disease and form of COPD.

Chronic bronchitis develops most often as a result of smoking, but can also occur from long term inhalation of other irritants into the lungs. Chronic bronchitis most often develops when irritants are breathed in to the respiratory tract. When air is mixed with smoke or irritants, it can damage the lungs and their ability to take in enough oxygen. Long term inhalation of irritants results in chronic irritation and inflammation of the bronchioles leading to excessive production of mucus, and thickening of bronchial tubes, result in obstruction of air flow into the lungs.

The longer the lungs are exposed to smoke or irritants, the more likely it is that you will develop chronic bronchitis. Chronic bronchitis can affect people of all ages. The occurrence is more in males than females.

Chronic bronchitis should be suspected in any patient over the age of 40 years. Presenting with persistent cough with expectoration of lung duration, recurrent respiratory infections, dyspnoea, more on exertion cyanosis and oedema (patients usually called as blue bloated). Haemoptysis may complicate.

Homoeopathic medicines have a wide scope in treatment of chronic bronchitis. The holistic and scientific system of medicine visualizes every patient as a unique individual. The scientific approach needs to be blended with the art of case taking, diligent recording and processing arrive at a complete diagnosis, the person diagnosis, the disease diagnosis that will ultimately help in selection of similimum. Most of the cases of chronic bronchitis have psoric origin and they can be efficiently treated and managed by homoeopathic medicines.

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