



AN OVERVIEW OF TUBERCULOSIS AND ITS HOMOEOPATHIC THERAPEUTICS

homeopathy

Dr Anjana Kumari	Assistant Professor Department Of Organon Of Medicine And Homoeopathic Philosophy Nootan Homeopathic Medical College Under Sankalchand Patel University Visnager, Gujarat, India.
Prajapati Hardik Jayantibhai	Bhms Student Nootan Homeopathic Medical College Under Sankalchand Patel University Visnager, Gujarat, India.
Patel Nayan Mukeshbhai	Bhms Student Nootan Homeopathic Medical College Under Sankalchand Patel University Visnager, Gujarat, India.
Thakor Shreyansh	Bhms Student Nootan Homeopathic Medical College Under Sankalchand Patel University Visnager, Gujarat, India.
Patel Ansh Kantibhai	Bhms Student Nootan Homeopathic Medical College Under Sankalchand Patel University Visnager, Gujarat, India.

ABSTRACT

The infectious disease tuberculosis is brought on by germs. Most often, the sickness is passed from one person to another by inhaling airborne droplets containing bacteria. Although it can affect any organ, tuberculosis most frequently affects the lungs. Disease isn't necessarily the end effect of the infection. Pathogens can be checked and controlled by human immune defense cells, therefore only 10% of adults get disease. However, if, for instance, the immune system is compromised, the infection may remain latent and become active at any time, even decades later. The disease TB can be fatal if untreated. A risk factor for long-term respiratory damage is a history of pulmonary tuberculosis (TB). This article focuses on the causes and diagnosis and Homeopathy treatment of the most common infective causes.

KEYWORDS

Tuberculosis, Homeopathy Remedy

INTRODUCTION

Mycobacterium tuberculosis is the bacterium that causes TB, a bacterial illness. The bacteria often assault the lungs, but they can also harm the bones, joints, skin, lymphatic system, genitourinary system, central nervous system, and lymphatic system. Although less prevalent, other mycobacteria such Mycobacterium bovis, Mycobacterium africanum, Mycobacterium canetti, and Mycobacterium mycroti can also cause TB.^{1,2}

Classification

75% of instances of active TB are in the lungs, where it is called pulmonary tuberculosis. Extrapulmonary tuberculosis is the aggregate term for the 25% of current cases in which the infection spreads from the lungs to cause other types of TB. Children and immunosuppressed people are more likely to experience this. Despite not being infectious, extrapulmonary TB can co-exist with pulmonary TB.

Pulmonary Tuberculosis Types:-

The major organ impacted by TB is the lung. There are two basic categories of tubercle bacilli infection depending on the kind of tissue response and age: primary TB and secondary tuberculosis.^{1,2}

Etiology

TB is brought on by M. tuberculosis. An alcohol and acid-fast bacillus, M. tuberculosis. It belongs to a collection of organisms known as the M. tuberculosis complex. Mycobacterium africanum, Mycobacterium bovis, and Mycobacterium microti are further included in this category.³

Over two billion individuals (roughly 30% of the world's population) are thought to be infected with M. tuberculosis, which has a widespread distribution. The incidence of TB peaked globally in 2003 and has subsequently been progressively dropping. Around 45% of the disease's new cases in 2016 were reported from Asia, with 25% coming from Africa. According to data from the WHO, 10.4 million individuals worldwide contracted TB in 2016, and 1.7 million of them passed away.^{4,5,6}

Despite being prevalent everywhere, there are considerable regional differences in the epidemiology of TB.

The greatest rates were seen in India, sub-Saharan Africa, Micronesia,

and the Southeast Asian islands (100 per 100,000 or greater).

The rates were intermediate in China, Eastern Europe, Central and South America, and northern Africa (between 26 and 100 cases per 100,000 people).

- The lowest rates (less than 25 cases per 100,000 persons) were seen in the United States, Canada, Japan, Western Europe, and Australia.⁷

Epidemiology

Although about 90-95% of people infected with M. tuberculosis do not develop active disease and remain asymptomatic, about 5-10% of those infected develop the disease. In 2012, there were approximately 8.6 million active TB cases worldwide. In the United States, tuberculosis is common among immigrant populations. While infections caused by nontuberculous mycobacteria are not uncommon in the United States, particularly among susceptible and immunocompromised patients, the multiple clinical difference between M. tuberculosis and non-tuberculous Mycobacterium (NTM) become a challenge because they share similar clinical and pathophysiological mechanisms. However, it is important to distinguish between tuberculosis and nontuberculous mycobacteria, as the treatment of both is dramatically different.⁸

While the prevalence of active tuberculosis is highest among young adults in the world, it is highest among the elderly in developed countries. All age groups have an increased risk of developing active disease. Common risk factors for developing active disease include:⁹

- HIV infection is 20-30 times more likely to develop active tuberculosis.
- Presence of other immunosuppressive conditions, including immunosuppressive agents such as long-term corticosteroids and anti-TNF drugs.
- Chronic lung diseases.
- Use of tobacco products.
- Malnutrition indicates a higher risk of progression to active disease, which is why tuberculosis is one of the most important diseases of poverty.
- Diabetes also increases the risk of progression of active tuberculosis and deterioration of treatment results.
- Consumption of alcohol (more than 40 g per day).
- Abuse of intravenous drugs.

- Indoor pollution.
- Silicosis
- End stage renal disease.
- Intestinal bypass surgery or gastrectomy.
- Chronic malabsorption.⁷

Sign And Symptoms :- clinical manifestations

Signs

- The physical examination depends on the affected organs. For pulmonary TB, you may experience crepitations and bronchial breathing sounds, particularly over your upper lobes or the affected area, which indicate a cavity or consolidation. Symptoms of extrapulmonary tuberculosis are diverse and may include:
- Lymphadenopathy
- Cutaneous lesions
- Pleural effusion
- Neurological deficit
- Confusion, coma
- Chorioretinitis
- Vertebral collapse¹⁰

Symptoms

In pulmonary tuberculosis, a chronic cough is the most common symptom. Most of the time, the cough is productive. In some cases, the cough may be accompanied by blood. Other constitutional symptoms include: Fever Weight loss Lymphadenopathy Night sweats

Diagnosis:-

1. Clinical features
2. The most important diagnostic investigation is the detection of acidfast bacilli as demonstrated by the Zeil- Neelson method. A sputum smear should be examined for a minimum of 100 fields for 10 minutes before it is declared as negative. A minimum of 3 bacilli must be observed before a positive sputum smear is declared. The Concentration method is available using 24 hour sputum collection to detect AFB when a direct smear is negative.
3. Sputum culture- for identification of Mycobacteria.
4. Increased ESR, mild Lymphocytosis.
5. Mantoux test.
6. Chest x-ray- early cases shows infiltration in upper zones, later coalesce to form consolidation.
7. Nucleic acid amplification – test system based on amplification of mycobacterial nucleic acid.
8. Bacterial DNA detection by polymerase chain reaction (PCR) Interferon gamma release assays for mycobacterium (ESAT-6) These assays are non immunocompromised and therefore generate fewer false positives.^{1,2}

Homeopathy Remedy^{11,12,13}

Arsenicum Album

The patient experiences a suffocating asthma, worsening at midnight, chest burning, suffocative catarrh, worsening cough, wheezing, hæmoptysis, burning heat, and dry cough after drinking..

Drosera Rotundifolia

This text describes a spasmodic, dry, and irritative cough, worsening after midnight and causing yellow expectoration, bleeding, and retching. It also describes a rough throat sensation, laryngitis, and rapid emaciation. Children may experience a titillating cough, while clergymen may experience a sore throat and hoarse voice.

Kalium Carbonicum

Cutting pain in chest; worse lying on right side. Hoarseness and loss of voice. Dry, hard cough about 3 am, with *stitching pains* and dryness of pharynx. Bronchitis, *whole chest is very sensitive*. Expectoration scanty and tenacious, but *increasing* in morning and after eating; aggravated right lower chest and lying on painful side. *Hydrothorax*. Leaning forward relieves chest symptoms. Expectoration must be swallowed; cheesy taste; copious, offensive, lump. *Coldness of chest*. *Wheezing*. Cough *with relaxed uvula*. Tendency to tuberculosis; constant cold taking; *better in warm climate*.

Iodium

Hoarse. Raw and tickling feeling provoking a dry cough. *Pain in larynx*. Laryngitis, with painful roughness; worse during cough. Child grasps throat when coughing. Right-sided pneumonia with high temperature. Difficult expansion of chest, blood-streaked sputum;

internal dry heat, external coldness. Violent heart action. Pneumonia. Hepatization spreads rapidly with persistent high temperature; absence of pain in spite of great involvement, worse warmth; craves cool air. Croup in scrofulous children with dark hair and eyes (*Brom* opposite). Inspiration difficult. Dry, morning cough, from tickling in larynx. *Croupy cough*, with difficult respiration; wheezy. *Cold extends downwards* from head to throat and bronchi. Great weakness about chest. Palpitation from least exertion. Pleuritic effusion. Tickling all over chest. Iod cough is worse indoors, in warm, wet weather, and when lying on back.

Silicea Terra

Colds fail to yield; sputum persistently muco-purulent and profuse. Slow recovery after pneumonia. Cough and sore throat, with expectoration of little granules like shot, which, when broken, smell very offensive. Cough with expectoration in day, bloody or purulent. Stitches in chest through to back. *Violent cough when lying down, with thick, yellow lumpy expectoration*; suppurative stage of expectoration.

Tuberculinum

Compare: *Koch's lymph* (acute and chronic parenchymatous nephritis; produces pneumonia, broncho-pneumonia, and congestion of the lungs in tuberculous patients, and is a remarkably efficacious remedy in lobular pneumonia-broncho-pneumonia); *Aviare-Tuberculin* from birds--(acts on the apices of the lungs; has proved an excellent remedy in influenzal bronchitis; symptoms similar to tuberculosis; relieves the debility, diminishes the cough, improves the appetite, and braces up the whole organism; acute broncho-pulmonary diseases of children; itching of palms and ears; *cough*, acute, inflammatory, irritating, incessant, and tickling; loss of strength and appetite); *Hydrast* (to fatten patients after Tuberc); *Formic acid* (tuberculosis, chronic nephritis, malignant tumors; pulmonary tuberculosis, not in third stage, however; lupus; carcinoma of breast and stomach; Dr. Krull uses injections of solutions corresponding to the third centesimal potency; these must not be repeated before six months). Compare: *Bacil*; *Psorin*; *Lach. Kalagua* (tuberculosis; garlicky odor of all secretions and breath). *Teucrum scoradonia*. Compare: *Thuja* (Vaccinosis may block the way of action of *Tuberculin*-until *Thuja* has been given and then acts brilliantly

CONCLUSION:

We have seen that homoeopathic medications are available to address the causes as well as the symptoms of Tuberculosis.

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