Why is tuberculosis or TB so contagious?
Treatment of tuberculosis

Tuberculosis or TB is not an uncommon infection, mostly affecting the lungs. It is very contagious infection and spread easily from one person to another person if they spent good amount of time together. It is a slow infection and patients may have significant symptoms for many weeks before it gets diagnosed. It is possible that the person may have already transmitted to other people before he or she may come to know that they have activity tuberculosis or TB.

Cause of TB:
Tuberculosis is caused by a bacteria called mycobacterium tuberculosis. It is a slowly growing bacteria which can easily spread through the air in the form of a micro air-droplets which are small fluid droplets in the form of spray that get discharged during coughing, sneezing, or loud talking. The bacteria survive in the fluid and when other person inhale the microdroplets, the bacteria get into the lungs and can cause infection.

Close contact:
People who spend many hours of time in the same contained space with a person ,who has active tuberculosis and shedding bacteria in their sputum, are considered close contacts. Usually these are household contacts or coworkers. Spending too much time together in public transport can be also a risk factor.

Organs that may be affected by TB:
Lungs are primarily organs affected by tuberculosis but other organs are not immuned to tuberculosis. It can affect brain, skin, liver, gut, kidneys and other organs.

Latent TB:
When a person is exposed to mycobacterium tuberculosis bacteria, most of the time, the immunity contains and kills the virus, and the person does not develop TB disease.

In some people, the immune system contains the bacteria but it is not cleared or killed completely. It is like the bacteria is having a deep sleep inside the body. The immune system keeps the bacteria “checked” until immunity is weakened by one or other reasons bacteria can grow significantly and can cause active tuberculosis disease. People with the latent tuberculosis do not have any symptoms. About one fourth of world population has latent TB.

Active tuberculosis disease:
Active tuberculosis or TB is when patient develops symptoms related to infection with mycobacterium tuberculosis. The usual symptoms are fever, night sweats, cough which may be dry initially but wet later, coughing up blood, or significant weight loss. There may be other signs and symptoms of tuberculosis depending on which organs are involved by the infection.

Diagnosis of a tuberculosis:
The diagnosis of tuberculosis requires typical symptoms along with confirmation of infection with mycobacterium tuberculosis. The tests that may be performed include skin testing or blood tests. The best test to confirm tuberculosis is by sputum culture. If there is no significant sputum production, patient may need a bronchoscopy and biopsy of the lung tissue.

Treatment of tuberculosis:
The treatment of tuberculosis requires 6-9 months antibiotics for non-complicated infections. Initially four medicines are used for a couple of months followed by two medicines for the rest of months. It is important to take the medication with good compliance otherwise the bacteria can become resistant and become difficult to treat.

In case of resistant tuberculosis, patient may require more than four medications and may include intravenous medication sometime. These may need to be taken for 18 to 24 months. It is important to take medications with good compliance initially to avoid getting tuberculosis becoming resistant to first line medications.

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