

Tuberculosis – An overview

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ABSTRACT

Tuberculosis (TB), an infectious disease caused by Mycobacterium tuberculosis continues to be a major cause of morbidity and mortality. The global epidemic situation is further aggravated by the emergence of HIV infection and strains of drug-resistant TB. The most common form of TB is pulmonary or lung TB. But TB can affect any part of the body, which is termed as extra-pulmonary TB. Pulmonary TB is diagnosed by using medical history and physical exam. This is confirmed by sputum examination. Diagnosing extra-pulmonary TB requires more testing depending on the type of TB. These include (i) examining biopsy specimen from the affected area for M. tuberculosis (ii) Urine culture, which will look for TB infection in the kidneys (iii) Lumbar puncture and testing of CSF for infection in the brain CT scan used to diagnose TB that has spread throughout the body and to detect lung cavities caused by TB. The chronic nature of mycobacterial infections generally necessitates treatment for about 6 to 9 months. Multiple drug regimens are necessary to prevent the development of drug resistant strains. Further, the microorganisms grow slowly; hence patient compliance, drug toxicity, and the development of bacterial resistance present special therapeutic problems. The modern short-course chemotherapy aims at rapid bactericidal and sterilising action. Improper and irregular chemotherapy leads to acquired drug resistance. Some of challenges in effective TB control include developing rapid tests for early diagnosis, discovery of more powerful drugs, having a powerful vaccine that would prevent the infection from becoming disease.