

CHEMORESISTANT TUBERCULOSIS: PROSPECTS OF PREVENTION AND TREATMENT

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Abstract

Tuberculosis (TB) is the leading cause of death in the world among infectious diseases. WHO estimated that in 2012 TB would infect in 8,6 million people and 1,3 million of them would die. Today society faced the new challenge — the global epidemic spread of multidrug-resistant TB (MDR-TB) and extended drug-resistant TB. In 2012, the number of registered patients with MDR-TB reached 94,000. WHO reported in 2012 that registered cases reflected only 25,0 % of all MDR-TB patients. The index of "cured" according to metaanalysis studies ranged from 43,7 to 65,0 % . This makes the necessity to find new ways and strategies to overcome MDR-TB. Innovative technologies are the main hope of modern medicine in the fight against this disease. Major efforts of experts were aimed at the rational use of the available medicines considering that none of the new effective compounds were developed in recent decade.

Introduction in clinical practice of new treatment technologies such as intravenous and inhalation administration of anti-TB drugs, the creation of the combinational products for intravenous administration, combining antibiotics and metabolic drugs, use of nitric oxide, the use of anti-TB drugs in the form of nanoparticles, management of malabsorption syndrome and recovery of protein metabolism, the use of highly informative methods for patient monitoring (multislice computed tomography) would increase the effectiveness of treatment of newly detected patients with TB and reduce the terms of positive-to-negative sputum smears conversion in patients with MDR tuberculosis.

Key words: chemoresistant tuberculosis, prospects for prevention and treatment.

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