Resistance to antituberculous drugs among pulmonary tuberculous patients

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Tuberculosis is a disease that has been known since antiquity, and itremains one of the leading causes of morbidity and mortality worldwide.Its management has become more complex because of increasedresistance to commonly used antituberculosis drugs.Tuberculosis (TB) is a major infectious disease killing nearly twomillion people, mostly in developing countries, every year.The increasing incidence of resistance of Mycobacteriumtuberculosis strains to the most-effective (first-line) anti-TB drugs is a majorfactor contributing to the current TB epidemic.Drug-resistant strains have evolved mainly due to incomplete orimproper treatment of TB patients.Resistance of M. tuberculosis to anti-TB drugs is caused bychromosomal mutations in genes encoding drug targets. Multidrug -resistant(resistant at least to rifampin and isoniazid) strains of M. tuberculosis(MDR TB) evolve due to sequential accumulation of mutations in targetgenes.Emergence and spreading of MDR-TB strains is hampering effortsfor the control and management of TB.The MDR-TB is also threatening World Health Organization's targetof tuberculosis elimination by 2050.Proper management of MDR-TB relies on early recognition of suchpatients.115Several diagnostic methods, both phenotypic and molecular, havebeen developed recently for rapid identification of MDR-TB strains fromsuspected patients and some are also suitable for resource-poor countries.Close contacts of MDR-TB patients are defined as people living inthe same household or spending many hours a day together with the patientin the same indoor living space.The available data indicate that close contacts of MDR-TB patientswho develop active TB most commonly have drug-resistant disease.Once identified, successful treatment of MDR-TB requires therapywith several effective drugs some of which are highly toxic, less efficaciousand expensive.Proper drug susceptibility test, proper choice of drugs at thebeginning of treatment and modification of treatment after knowing drugsusceptibility testing results are important for the prevention of MDR-TB.Ensuring patient adherence to treatment is important in the medicalinstitutions where drug susceptibility test is not properly done, in particular,for INH-resistant RMP-susceptible cases, and guidance to these institutionsby the public health centers should be intensified.Minimum treatment duration of 18e24 months is also long, making itdifficult for health care providers to ensure adherence to treatment.Successful treatment has been achieved by supervised therapy withappropriate drugs at institutions equipped with facilities for culture, drugsusceptibility testing of MDR-TB strains to second-line drugs and

regularmonitoring of patients for adverse drug reactions and bacteriological andclinical improvement.116Conclusionsfrom the present study, it was concluded that:· Resistance to anti- tuberculous drugs is a major health threat in our country.· The highest figures of resistance were to Isoniazid and Rifampicin which isprobably attributed to the abuse of Rifampicin.· The lowest figures of resistance were to Ethambutol.· Resistance to drugs is very high among previously treated group.· The most common type of resistance was acquired resistance because oflack of adherence to treatment or inappropriate treatment.· MDR-TB is an increasing problem with higher figures of resistance inretreated patients.· The more extensive the radiological lesion, the more incidence of resistance· The most common complications of anti. TB drugs was GITmanifestations and the least complications was electrolytes disturbance