Current status of acquired drug resistance pattern in tuberculosis cases at the tertiary care centre, Meerut, India.
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PAPER

Current status of acquired drug resistance pattern in tuberculosis cases at the tertiary care centre, Meerut, India.

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Although effective anti-tuberculosis drugs have been available for decades in Tuberculosis is still a major problem. A study of total of 205 previously treated cases was conducted in Department of Microbiology, Meerut. Out of 205 cases, 106 (80.3%) were positive for M. tuberculosis and 26 (22.6%) of MOTT. Drug susceptibility testing of the 106 isolates were done by conventional 1% proportion method was done out of which, 66 were resistant to one or more anti-tuberculosis drugs, of which 32.1% were multidrug resistant tuberculosis (MDR). Resistant to isoniazid was observed in 50 (47.2%), followed by resistance to streptomycin in 35 (39.3%), rifampicin in 37 (34.9%) and ethambutol in 20 (22.5%). A very high proportion of drug resistant cases had MDR besides resistance to two or more drugs. The drug susceptibility pattern of M. tuberculosis is essential for proper control of MDR-TB in every health care setting, MDR is an emerging global problem which needs early start of treatment. Routine culture and DST are time consuming method. Empiric treatment is usually given in the absence of DST results. These factors thus further contributing to the transmission of MDR-TB. Thus, all the re-treatment cases should be screened with the rapid and highly sensitive tests like Line probe assay (LPA) which will help in reducing the transmission of drug resistant strains.

POSTER

Frequency and antibiotic susceptibility pattern of Mycobacterium tuberculosis isolates in primary cases

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Tuberculosis (TB) has been still a major public health problem in most developing countries and its incidence is rising in many developed countries. Due to emergence of multidrug resistant tuberculosis (MDR-TB) the situation becomes alarming. So for proper control and management of MDR-TB, understanding drug susceptibility pattern of M. tuberculosis is very important. Thus study is being conducted in Department of Microbiology, Meerut in which total of 187 samples of new cases were cultured on Lowenstein-Jensen media to isolate mycobacteria. Out of which 74 samples show growth. Among the pulmonary isolates, 69 (93.2%) were M. tuberculosis and 5 (5.4%) were MOTT. Drug susceptibility of isolated M. tuberculosis were recorded using 1 percent proportion method. Primary drug resistance in M. tuberculosis was estimated to be 14/69 (20%) to isoniazid, 3 (4.4%) to rifampicin, 5/69 (7.7%) to ethambutol, and 8 (11.6%) to streptomycin. Of 69 isolates from new patients, 43 (62.3%) were susceptible to all first-line drugs, MDR-TB was found in 2 (2.9%).

MDR-TB prevalence remains low among new patients in Meerut. This prevalence of drug resistance helps us in knowing the trend of drug resistance in this area.