DRUG SUSCEPTIBILITY OF *MYCOBACTERIUM TUBERCULOSIS* IN PATIENTS WITH AIDS AT A TERTIARY CARE HOSPITAL IN NORTHERN INDIA

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Abstract. The study was done to determine the anti-tuberculosis drug resistance patterns of *Mycobacterium tuberculosis* (MTB) in AIDS patients. Fifty antiretroviral drug naïve new AIDS patients with clinical evidence of pulmonary tuberculosis and no previous history of tuberculosis were recruited. Baseline CD4 counts and plasma viral loads (PVL) were measured by flow cytometry and RT-PCR, respectively. Sputum samples were obtained from each patient and subjected to Ziehl-Neelsen staining and cultured on Lowenstein-Jensen medium and using the BACTEC 460 system (B460). Antimicrobial susceptibilities were tested in all isolates using the B460 system. The occurrence of MTB was found to be more common with a PVL >4 $\log_{10}$ copies/ml (odds ratio: 4.6). Of 15 MTB isolates, 8 (53.3%) had single drug resistance, 4 (26.7%) had multidrug resistance (MDR) and 1 (6.7%) had resistance to three drugs (non-MDR). Two isolates (13.3%) were sensitive to all the four drugs. Resistance to first line anti-tuberculosis drugs was found to be higher among AIDS patients with MBT.

Keywords: *Mycobacterium tuberculosis*, BACTEC 460 TB system, MDR-TB, AIDS

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