

Ethambutol-Susceptibility of Clinical and Environmental Atypical Mycobacteria Isolated from Isfahan, Iran.

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- **Abstract:**Background: Due to increasing of AIDS and nontuberculous mycobacteria (NTM) pathogenesis in this group of patients, the role of NTM is becoming bold and more concerned. Furthermore, the treatment of NTM diseases is species related. Thus, information about the pattern of treatment to cure the related diseases is very important in any geographical area. In this study, environmental and clinical isolates of NTM and their sensitivity to ethambutol has been determined. Methods: 41 clinical and environmental isolates from Isfahan, Iran, were identified by conventional phenotypic methods. To determine sensitivity to ethambutol, the isolates were tested in 2, 5, and 10 µg/ml antibiotic concentrations by agar microdilution method. Findings: The identified isolates included *M. fortuitum* (27 cases), *M. goodii* (10 cases) *M. smegmatis* (1 case), *M. abscessus* (2 cases), and *M. conceptionense* (1 case). All of the clinical and environmental isolates were resistant to ethambutol except *M. conceptionense* which was susceptible in 5 and 10 µg/ml ethambutol concentrations [minimum inhibitory concentration (MIC): less than 5 µg/ml]. Conclusion: Due to high frequency of ethambutol resistance in rapid- and slow-growing species of NTM, treatment strategy in this group of patients should be undertaken with caution and more effective drug should be considered.