

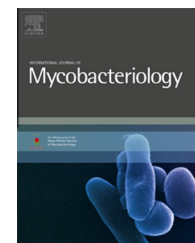


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Drug resistance pattern of *Mycobacterium tuberculosis* in the province with highest incidence of tuberculosis in Iran

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ABSTRACT

Objective/background: Incidence of tuberculosis (TB) in Golestan Province is consistently higher than other provinces of Iran. This study aimed to determine the rate of drug resistance to first-line antibiotics in *Mycobacterium tuberculosis* (MTB) isolates recovered from new cases in this province.

Methods: The sputum and broncho-alveolar lavage samples from 3828 patients who were suspected for active TB were collected from March 2015 to July 2015. All specimens were subjected to smear microscopy and culture. Drug susceptibility testing to rifampicin, isoniazid, ethambutol, and streptomycin was performed on Löwenstein–Jensen medium using proportion method.

Results: Of 3828 clinical specimens, 40 were culture-positive for MTB. The mean age of patients was 48.6 ± 17.5 years and 23 (57%) patients were male. Thirty-eight patients were native Iranians while two (5%) were immigrant patients from Turkmenistan and Afghanistan. A set of 34 (85%) isolates were pan-susceptible, six (15%) were resistant to at least one drug, and one isolate (2.5%) was multidrug resistant.

Conclusions: The rate of drug resistance in this study area point to the necessity for further enforcement of TB treatment and disease control management. Future studies are recommended for assessments of drug resistance pattern of MTB isolates in Golestan Province.

Conflicts of interest

There is no conflict of interest to declare.

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