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Prevalence of Extensively Drug-Resistant Tuberculosis Among Patients With Multidrug-Resistant Tuberculosis: A Retrospective Hospital-Based Study

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Abstract

Background & objective: Extensively drug-resistant tuberculosis (XDR-TB) is a difficult-to-treat form of multidrug-resistant tuberculosis (MDR-TB). High rates of XDR-TB have been reported from India. We sought to ascertain the prevalence of XDR-TB among patients with MDR-TB treated at a tertiary care centre in New Delhi, India.

Methods: Case records of patients treated for MDR-TB at the All India Institute of Medical Sciences hospital, New Delhi, between 1997 and 2003 were retrospectively reviewed. All patients underwent a pretreatment drug-susceptibility testing (DST) to first- as well as second-line drugs. XDR-TB was defined as TB caused by bacilli showing resistance to rifampicin and isoniazid in addition to any fluoroquinolone and to at least one of the three following injectable drugs: capreomycin, kanamycin, and amikacin.

Results: A total of 211 laboratory-confirmed cases of MDR-TB were reviewed. The mean age of the patients was 33 +/- 12 yr. Fifty one (24%) patients were females. All patients were sero-negative for human immunodeficiency virus infection. Five of the 211 MDR-TB patients had XDR-TB. The prevalence of XDR-TB was 2.4 per cent among MDR-TB patients.

Interpretation & conclusion: Our results showed that XDR-TB was rare among patients with MDR-TB treated between 1997 and 2003 at our centre. Unreported selection bias might have been responsible for the high prevalence of XDR-TB reported in previous hospital-based studies from India.