Outcomes of MDR/XDR-TB Patients Treated with Linezolid: Experience in Thailand

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Abstract

Background: Multi-drug-resistant/extensively drug-resistant tuberculosis (MDR/XDR-TB) becomes an increasing problem in management. Linezolid has been off-label used in treatment of MDR/XDR-TB with major adverse effects.

Objective: To study outcomes of MDR/XDR-TB patients treated with linezolid in Central Chest Institute of Thailand.

Material and Method: MDR/XDR-TB patients treated with linezolid from 2009-2012 were retrospective analyzed.

Results: Seventeen from 24 cases had finished treatment. Linezolid, capreomycin, cycloserine, clofazimine, moxifloxacin, ethambutol, kanamycin, ethionamide, and PAS were used in 24, 21, 8, 7, 5, 2, 2, and 2 cases respectively. Long-term injection of capreomycin was used in 14/17 cases for an average of 14.7 months. Three point three drugs were used as an average. Average conversion time of smear and culture were 53.5 and 52.1 days respectively. Treatment time averaged 19.1 months. Fifteen of 24 cases were cured, seven were still ongoing treatment, all had sputum culture conversion, and two cases failed. There was no relapse in 13 cases after a follow-up that averaged 10.6 months. Linezolid was stopped in five cases from peripheral or optic neuropathy. Capreomycin was stopped in four cases from vestibulotoxic and nephrotoxic.

Conclusion: Linezolid has good efficacy in treatment of MDR/XDR-TB with major adverse effect and should be used with caution. If capreomycin is susceptible or likely active, long-term injection should be considered when likely active drugs are not enough to strengthen the regimen.

Keywords: Capreomycin, Drug-resistant, Linezolid, Treatment, Tuberculosis

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