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Clinical Characteristics and Treatment Outcomes of Patients with Isoniazid-mono-resistant Tuberculosis.

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BACKGROUND: Risk factors and treatment outcomes under program conditions for isoniazid (INH)-mono-resistant tuberculosis have not been well described.

METHODS: Medical charts were retrospectively reviewed for all cases of culture-confirmed, INH-mono-resistant tuberculosis (n = 137) reported to the San Francisco Department of Public Health Tuberculosis Control Section from October 1992 through October 2005, and those cases were compared with a time-matched sample of drug-susceptible tuberculosis cases (n = 274)

RESULTS: In multivariate analysis, only a history of treatment for latent tuberculosis (odds ratio [OR], 3.1; 95% confidence interval [CI], 1.5-6.4; P = .003) or for active tuberculosis (OR, 2.7; 95% CI, 1.4-5.0; P = .002) were significantly associated with INH-mono-resistant tuberculosis. Of the 119 patients who completed treatment, 49 (41%) completed a 6-month treatment regimen. Treatment was extended to 7-12 months for 53 (45%) of the patients and to >12 months for 17 (14%). Treatment was most commonly extended because pyrazinamide was not given for the recommended 6-month duration (35 patients [29%]). Despite variation in treatment regimens, the combined end point of treatment failure or relapse was uncommon among patients with INH-mono-resistant tuberculosis and was not significantly different for patients with drug-susceptible tuberculosis (1.7% vs. 2.2%; P = .73).

CONCLUSIONS: A history of treatment for latent or active tuberculosis was associated with subsequent INH mono-resistance. Treatment outcomes for patients with INH-mono-resistant tuberculosis were excellent and were no different from those for patients with drug-susceptible tuberculosis. However, new, short-course regimens are needed because a small proportion of patients completed the 6-month treatment regimen recommended by the American Thoracic Society, Centers for Disease Control and Prevention, and Infectious Diseases Society of America, primarily because of pyrazinamide intolerance.

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