

MULTIDRUG RESISTANT PULMONARY TUBERCULOSIS IN OSAKA CITY: PATIENTS' BACKGROUNDS, TREATMENT OUTCOMES AND DOTS TYPES

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Abstract [Purpose] With an aim to mitigate the prevalence of tuberculosis (TB) in Osaka city, we analyzed the effectiveness of DOTS administration and the treatment outcomes in multidrug resistant (MDR) pulmonary TB patients.

[Methods] Fifty-two MDR patients, registered in Osaka city public health office from 2009 to 2014, were compared with 2,626 non-MDR TB patients registered in Osaka city from 2011 to 2014. First, we analyzed the factors associated with MDR by logistic regression analysis. Second, the treatment outcomes and community DOTS types (3 types) were compared between MDR and non-MDR groups. Third, for both MDR and non-MDR groups, the frequency of patients (expressed as percentage) who failed/lost to follow up was calculated for each type of community DOTS.

[Results] Fifty-two (1.2%) MDR patients were identified. Retreatment (odds ratio 6.91), born in a foreign country (5.16), and possessing public health insurance (2.74) were identified as major factors associated with MDR TB. 27.4% of MDR patients were successfully treated, 23.6% failed/lost to follow up, 31.4% died and 17.6% transferred out. When transfer-out and dead patients were excluded, 46.2% of MDR patients failed/lost to follow up. This value was significantly higher than that of the non-MDR patients (5.6%, $P < 0.05$). 9.8% MDR patients and 2.2% of non-MDR patients did not receive DOTS ($P < 0.05$ between MDR and non-MDR groups). The proportion of patients who failed/

lost to follow up was 47.4% in type B DOTS (at least once per week) and 42.9% in type C DOTS (at least once per month)/not conducted in MDR patients. No significant differences exist between these two types. In contrast, in non-MDR patients, 3.2% of type B and 8.9% of type C/DOTS not conducted patients failed/lost to follow up ($P < 0.001$).

[Discussion] Despite the high rate of failure/lost to follow up, a significant proportion of MDR patients did not receive DOTS. Thus, DOTS and high-quality patient support are necessary for successful MDR-TB treatment. On the other hand, as DOTS alone may not be enough for treatment success, it is necessary adjust medical provision and social support according to the patients' need so that they can successfully receive complete treatment.

Key words: Pulmonary tuberculosis, MDR, Treatment outcomes, DOTS, Patient's background

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TUBERCULOSIS TREATMENT FOR PATIENTS MORE THAN EIGHTY YEARS OLD

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Abstract [Background] Current tuberculosis standard treatment in Japan includes two regimens, that is A (isoniazid rifampicin, pyrazinamide, ethambutol or streptomycin) or B (without pyrazinamide from A). The Japanese Society for Tuberculosis recommends B more for people older than 80 years and validity of this policy needs to be evaluated.

[Method] Method is retrospective review of clinical data of 42 hospitals. All cases older than 80 years of age treated with regimen A or B were the target population. Background information, treatment result, frequency of adverse drug reactions and risk of relapse were evaluated.

[Result] There was no difference of sex, age, sputum smear, X-ray findings, proportion of culture positivity and performance status. Cases treated with A were less with hepatic dysfunction, renal dysfunction and malignant neoplasm. There was big difference of the proportion of cases treated with A by hospitals. Cases treated with A showed higher frequency

of hepatic adverse reaction, severe hepatic adverse reaction and visual disturbances. The proportion of cure and completion was higher among cases treated with A. There was no difference of the risk of death.

[Conclusion] The conclusion is that cases older than 80 can be treated safely with standard regimen including pyrazinamide but the risk of severe hepatic adverse reaction requests careful follow up and cases with hepatic dysfunction, renal dysfunction and malignant neoplasm need to be further evaluated.

Key words: Tuberculosis, Old cases, Treatment result

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